CFA Institute®
CFA Program

PRIVATE WEALTH PATHWAY

CFA® Program Curriculum

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THANK YOU TO OUR CONTRIBUTORS

Walter Allemano

Francois E. Aubert, MBA, FIoL, Chartered MCSI, TEP, CEFA, CAIA

Emilian Belev, ARPM, CFA

Robin Black, BCom, CFA

Clark M. Blackman II, CPA/PFS, CFP, AAMS, AIF, AEP, CGMA, MA, CFA

James W Bronson, CFA

John Paul Broussard, PhD, FRM, PRM, CFA

Donald R. Chambers, PhD

Nidal Danoun, CA, FCPA, CTA, CFP

Pamela Peterson Drake, PhD, CFA

Lee M. Dunham, PhD, CFA

Helena Eaton, PhD, CFA

Mercy Gandi

R. Gnanasekaran

Stephen M. Horan, PhD, CFA, CIPM

Vahan Janjigian, PhD, CFA

William W. Jennings, PhD, CFA

Rajendra Kalur, CFA

Meghaan R. Lurtz, PhD

Richard Mak

Konstantinos Maratos, CFA

Philip Marcovici

Todd J. Mulligan, CFP(r), CAIA, CFA

Hugo Aravena Nehme, CFA, CIPM

Connie GS Ong, CFA

Thomas K. Philips, PhD

Sri Prihadi

Julie Ragatz, PhD

Anthony Serhan, CFA

Christopher Sidoni, CFP, CFA

T. Mandy Tham, PhD

Thomas J. Trainor, CFA

Alex Xuyang Wang

Bora Yagiz, FRM

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How to Use the CFA Program Curriculum

The CFA® Program exams measure your mastery of the core knowledge, skills, and abilities required to succeed as an investment professional. These core competencies are the basis for the Candidate Body of Knowledge (CBOK™). The CBOK consists of four components:

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- Topic area weights that indicate the relative exam weightings of the top-level topic areas (www.cfainstitute.org/en/programs/cfa/curriculum)
- Learning outcome statements (LOS) that advise candidates about the specific knowledge, skills, and abilities they should acquire from curriculum content covering a topic area: LOS are provided at the beginning of each block of related content and the specific lesson that covers them. We encourage you to review the information about the LOS on our website (www.cfainstitute.org/programs/cfa/curriculum/study-sessions), including the descriptions of LOS "command words" on the candidate resources page at www.cfainstitute.org/-/media/documents/support/programs/cfa-and-cipm-los-command-words.ashx.
- The CFA Program curriculum that candidates receive access to upon exam registration

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Private Wealth Pathway

LEARNING MODULE

5

Preserving the Wealth

LEARNING OUTCOMES

Mastery	*The candidate should be able to:*
☐	analyze the types of risks relevant to human capital
☐	describe and recommend strategies to manage risks to human capital
☐	recommend planning and investment strategies to mitigate the corrosive influence of inflation on preserving purchasing power
☐	describe how exchange rates influence asset allocation and planning as well as approaches to mitigate the exchange rate risk

INTRODUCTION

1

The overview of private wealth management presented earlier in the curriculum establishes life cycle finance as a dominant framework to understand how investors use their wealth to achieve their goals. Although the financial stages of life are difficult to define precisely, individuals do tend to follow predictable financial patterns during their lifetimes. They might invest in education early in life, start families, accumulate assets, fund growing household expenses, transition into retirement, and ultimately pass on wealth before or after death.

The family extended balance sheet, introduced in an earlier reading, and how it evolves through these life stages are also lenses through which we can identify, measure, and manage the risks to which financial goals are exposed. This reading explores three key risks associated with the financial stages of life: the impairment of human capital, the erosion of purchasing power, and the volatility of exchange rates.

Families of all wealth levels are exposed to these risks in some form, but in different ways and to varying degrees depending on their situation and life stage. The family extended balance sheet is a useful risk management framework to identify and evaluate these risks. Wealth management, balancing human capital and other assets against liabilities and obligations, is risk management in much the same way as pension funds manage risk.

LEARNING MODULE OVERVIEW

- The two primary asset types for most individuals can be described broadly as human capital and financial capital. Human capital is the net present value of the individual's mortality adjusted future expected labor income.
- Financial capital includes such items as a bank account, investments in individual securities, pooled investment funds, private retirement accounts, and a home. Other assets can include an interest in a family-held business, real estate, or expected inheritances.
- Individuals' economic wealth changes over their lifetimes, reflecting human capital income, and the value of assets. For younger individuals, human capital dominates their wealth. As they age, earnings accumulate, boosting financial capital.
- Risk management for individuals involves five steps: identifying, measuring, evaluating, managing, and monitoring risks and making necessary adjustments.
- Risk management techniques include risk avoidance, risk mitigation, risk transfer, and risk acceptance. The best choice depends on the risk's frequency and severity as well as the size of the family's surplus.
- Earnings risk refers to the risks associated with the earnings potential of an individual: events that could negatively affect someone's human and financial capital.
- Mortality risk relates to the death of an individual, such as a family member, whose future earnings (human capital) were expected to help pay for the financial needs and aspirations of the family.
- Longevity risk is the possibility of depleting financial capital before death.
- Mortality tables can be used to estimate the retirement needs (i.e., retirement needs analysis) using survival probabilities to weight expected retirement expenses, which becomes a liability or investment objective on the family extended balance sheet.
- Sequence-of-return risk amplifies longevity risk caused by large negative returns early in a withdrawal program.
- Longevity risk can be managed through volatility control, dynamic withdrawal programs, laddered bonds, bucket planning, and annuities.
- Liability risk refers to the possibility that an individual or other entity may be held legally liable for the financial costs of property damage or physical injury. For wealthy individuals, personal liability risk can become a key financial risk because their substantial assets may draw attention and make them targets for legal claims.
- Life insurance aims to replace the value of human capital after their death. A family's insurance need relates to the potential loss of the individual's future earnings or the needs of the family.
- Life insurance types are temporary (term life insurance) and permanent (whole life insurance).
- Temporary life insurance, or term life insurance, provides insurance for a certain time period specified at purchase.

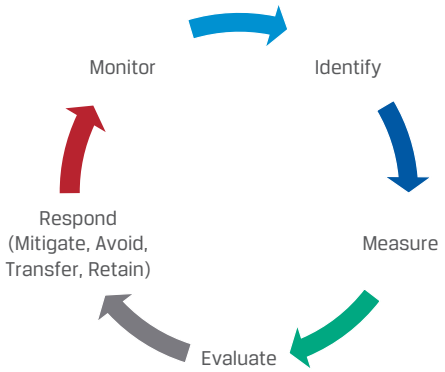
- Permanent insurance, or whole life insurance, is used to provide lifetime coverage, assuming the premiums are paid over the entire period.
- Fixed annuities offer a set benefit for life. Variable annuities' benefits change based on the performance of an underlying investment. When selecting between fixed and variable annuities, considerations include the volatility of the benefit, flexibility, future market expectations, fees, and inflation.
- Factors increasing the demand for an annuity include longer life expectancy, preference for lifetime income, reduced emphasis on inheritance, conservative investment preferences, and lower guaranteed income from other sources, such as pensions.
- A household's decision to assume risk or purchase insurance depends on their risk tolerance. Households with higher risk tolerance are more likely to retain risk rather than purchase insurance, especially when insurance products are costly.
- At the same level of wealth, a more risk-tolerant household will prefer to retain more risk, either by choosing higher insurance deductibles or by simply not buying insurance, than will a less risk-tolerant household. Insurance products that are viewed as expensive will encourage a household to retain more risk.
- Insurance products, like annuities, can serve various roles in a portfolio, mimicking the income features of certain asset classes.
- Households that can tolerate more risk might opt for higher deductibles or forgo insurance.
- An individual's total wealth influences their portfolio construction, including allocations to risky assets and selected asset classes, like stocks or bonds.
- The specific income features of insurance products, such as annuities, can replace, complement, or amplify income from specific asset classes. Fixed annuities are similar to bonds, while variable annuities have equity-like features.
- Idiosyncratic risks are unique to individuals and include occupational hazards, longevity risk, long-term illness, and risks of premature death or property loss.
- Systematic risks are economy-wide factors that impact all households.
- The extent of this impact varies based on each household's asset allocation, wealth, and investment strategy.
- Inflation reduces purchasing power, posing a long-term risk to wealth accumulation and consumption level preservation. The actual inflation rate depends on a family's consumption preferences.
- Inflation risk can be gauged by the correlation between family investment objectives and inflation, indicating the optimal hedge ratio.
- Most assets are negatively correlated with inflation, making them unsuitable inflation hedges.
- Families operating internationally face exchange rate risk. The family extended balance sheet can identify the magnitude of currency risk and recommend potential hedges. Important in this determination is the identification of a reference currency, or the currency in which a family's investment objectives are denominated.

2 RISK MANAGEMENT USING ASSET-LIABILITY MANAGEMENT

☐ analyze the types of risks relevant to human capital

Risk management is the process of identifying threats to assets, including human capital, and developing an appropriate strategy for dealing with these risks. The five key components of risk management are in Exhibit 1.

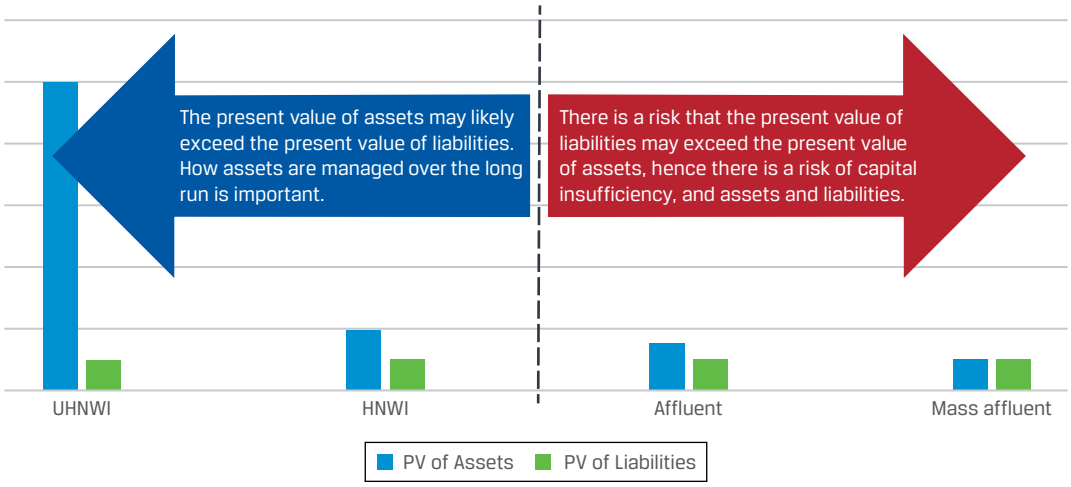
Exhibit 1: Steps in the Risk Management Process



The following sections are organized around these five key steps using an asset-liability, or surplus, management (ALM) framework. **Surplus**, the difference between assets and liabilities, is analogous to shareholders' equity on a corporate balance sheet.

The family's extended balance sheet outlines asset sizes and corresponding liabilities, aiding in the identification and assessment of varying risk exposures. The size of the surplus is key for financial flexibility, enabling better management of both current and future financial conditions. A larger surplus offers more investment choices and the capacity for higher-risk allocations. On the other hand, a smaller surplus necessitates a more cautious and balanced approach, emphasizing liability reduction and the maintenance of a safety net, as Exhibit 2 shows.

Exhibit 2: Assets and Liabilities across Wealth Levels



In risk management, the initial instinct may be to eliminate any identified risk. However, a systematic approach involves assessing the characteristics of each risk exposure before formulating an appropriate response. This assessment typically centers on the probability and the probability-weighted impact of the risk, as demonstrated in Exhibit 3.

Exhibit 3: Risk Response

Loss characteristics		Probability: High	Probability: Low
Impact	High	Avoid	Transfer
	Low	Mitigate	Accept

An individual may choose to mitigate the impact of a potential loss. **Loss control** represents efforts to avoid or mitigate the expected losses, and there are two general approaches associated with high-probability losses:

- **Risk avoidance** eliminates the possibility of a high-impact loss event occurring. The risk of losing a collectible car or piece of jewelry can be eliminated by selling the asset, which is a somewhat extreme strategy but can become appealing if the asset is no longer providing significant utility.
- **Risk mitigation** reduces the size of an expected loss by either reducing the probability of loss (loss prevention) or the size of the loss (loss reduction).
  - **Loss prevention** reduces the probability that a loss event will occur. Installing a home security system lowers the likelihood of experiencing a break-in and subsequent theft-related losses.
  - **Loss reduction** is the process of seeking to reduce the impact (i.e., size of a loss) if a loss event occurs and is another form of mitigation. Maintaining a high-quality fire extinguisher in the kitchen does not prevent fires but enables homeowners to contain a fire and to mitigate potentially extensive damage.

There are also two general approaches to addressing low-probability losses:

- **Risk transfer** (the right-hand column in Exhibit 3) transfers risks from an individual to the insurance company. Individuals can also use non-insurance risk transfers, such as contracts, to mitigate risks. A borrower might choose a long-term fixed-rate loan to lock in monthly repayment, anticipating high interest rates, thereby transferring increased cost risk to the lender. Incorporating a business previously operated as a sole proprietorship is another non-insurance risk transfer. This separation shields personal assets and human capital from the business's legal exposure.
- **Risk acceptance**, or retention, is influenced by a household's economic ability to accept that specific risk and directly reflects the size of the surplus on the family balance sheet. A larger surplus does not necessarily lead to higher risk acceptance; it makes incurring smaller financial risks and absorbing their impact more manageable. Risk tolerance is key: the more risk-tolerant households will prefer to retain more risks—either by choosing higher insurance deductibles or by simply buying little or no insurance—than less risk-tolerant households.

Ideally, a decision to retain risk will be supported by a thorough self-insurance policy to prevent a disproportionate impact on, and gradual erosion of, the surplus caused by the occurrence of a risk.

The primary factor influencing the risk retention decision is the surplus size and its potential vulnerability to risk events. Installing a high-quality fire-rated roof can lower the likelihood of a fire spreading between neighboring houses and reduce potential fire damage. This serves as both a risk avoidance and mitigation strategy. However, the high cost of such a roof may not be justifiable. Instead, property insurance can transfer the significant risk of fire loss, with the chosen level of deductible fine-tuning the optimal level of risk retention.

KNOWLEDGE CHECK: RISK RESPONSE

1. Describe how loss control in risk management can be influenced by the surplus on the extended family balance sheet of a high net worth individual (HNWI) family.

   Solution:

   Loss control refers to efforts to reduce or eliminate costs associated with risks. Another approach to loss control is loss prevention, in which one attempts to reduce the likelihood of a risky event. Loss reduction refers to approaches that attempt to minimize the size of the loss if a risky event does occur.

   For wealthy families, the surplus influences how they manage risks. A large surplus allows them to self-insure and take on more risks themselves. This financial cushion allows them the flexibility to choose higher insurance deductibles, which lowers their premiums. Although they can absorb bigger losses, they may still strategically opt for insurance for catastrophic risks. Overall, a large financial surplus allows wealthy families more choices and flexibility in how they manage and mitigate risks.

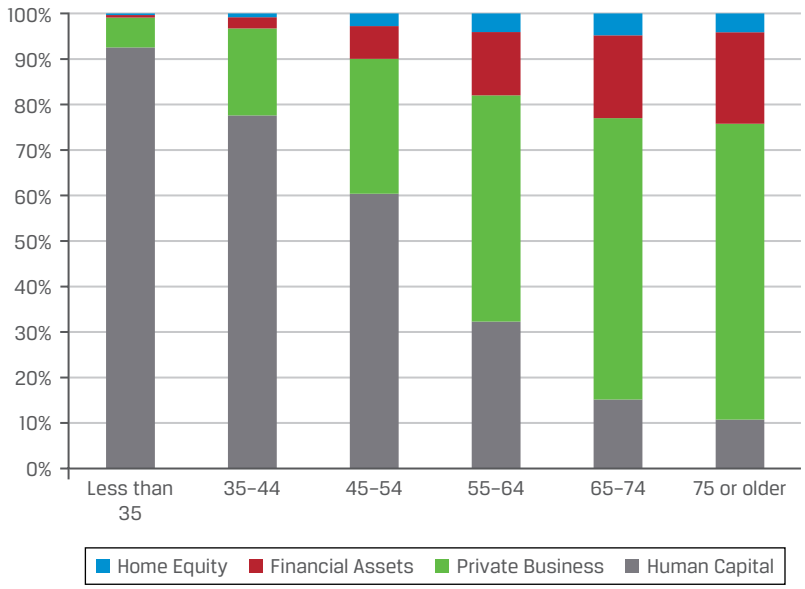
Identify, Measure, and Evaluate Risks to Human Capital

Most individuals have significant human capital which is subject to various risk. Identifying risks to human capital and techniques for managing them is important from the management of their financial capital. Future sections of this reading introduce financial products to manage some of these risks.

Employment Risk

Human capital is the dominant component of many, if not most, individuals' balance sheets throughout their careers and not just in the early stages. This is especially evident when accounting for entrepreneurship and private businesses as sources of human capital. As Exhibit 4 shows, human capital dwarfs financial capital not just in the early career stage but also well through the capital accumulation phase.

Exhibit 4: Magnitude of Human Capital over the Life Cycle



*Source:*Author's calculations based on Federal Reserve Board (2019).

The above graph depicts the exchange of human capital for financial capital across lifetime. The value of human capital depends not only on the magnitude of a client's current and expected earnings stream but also on defining characteristics, some of which are listed in Exhibit 5.

Exhibit 5: Factors Influencing the Value of Human Capital

To hedge employment-related human capital risks effectively, it is essential to identify, quantify, evaluate, manage, and continuously monitor outcomes related to the following defining characteristics of human capital:

- *Earnings Volatility*: This factor includes both the probability of being employed (or conversely unemployed) and potential volatility to annual earnings given one is employed.
- *Earnings Correlation*: Some industries are cyclical and are prone to layoffs in cycle troughs. An investment banker's earnings stream, for example, is highly correlated with capital market returns because both annual bonuses, revenue, and industry hiring trends respond to market fluctuations. The greater the correlation, the less valuable the earnings stream and the less risk to accept in financial capital with all else equal.
- *Replaceability*: This is another factor to consider how easily a client could replace their income if they leave their current employer. Some human capital may be industry-specific or in some cases even so narrowly focused that it becomes firm-specific. This increases the risk to which the earnings stream is exposed. As such, highly specialized human capital, such as a nuclear physicist, increases employment risk due to potentially limited transferable skills. In contrast, skills in fields like human resources or law are more transferable. Technological changes elevate the importance of re-skilling to transition between industries. Difficulty in finding alternative employment increases earnings stream risk and should reduce risk tolerance in financial capital.

Each of these characteristics—earnings volatility, earnings correlation, and replaceability—affects a client's investment portfolio differently. Generally, higher employment risks in human capital necessitate lower risk tolerance in financial capital.

There are equity and bond-like earnings streams. Earnings streams that are volatile, highly correlated with market returns, and hard to replace resemble equities. Conversely, stable earnings streams are more bond-like. This has implications for the allocation of financial capital. Entrepreneurs, as an example, face multiple risks to their human capital, which should be offset with a more conservative portfolio. But a tenured university professor, on the other hand, has bond-like human capital, which enables more risk-taking in the professor's financial capital. Additional risks to human capital not enumerated above relate to mortality and health risks; both will be addressed later.

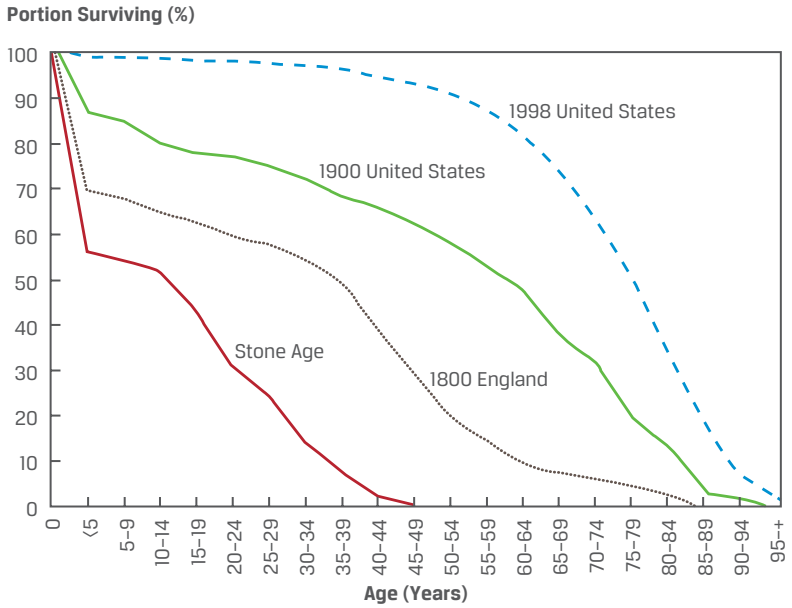
Mortality Risk

Death and taxes are the only certainties in life. Premature death unexpectedly cuts short an earnings stream and extinguishes the value of human capital. The potential impact from mortality risk tends to be higher early in one's career and after marketable skill sets have been established. The surviving family shoulders the financial consequences of mortality risk, often compounded by added responsibilities and emotional distress from losing a loved one.

Even non-wage earners face mortality risk to human capital. The death of a primary caregiver creates a void in household services that would need to be replaced. Death also creates expenses for funerals, transitions, and estate settlements. The loss of a primary wage earner might also necessitate training or education for the surviving spouse unless there is sufficient insurance coverage.

Life expectancy has changed dramatically over time as Exhibit 6 shows. In the United States, the median survival age rose from around 60 years in 1900 to nearly 80 years a century later. As of 2000, someone reaching age 65 can expect to live an additional 16–18 years, compared to just 10–13 more years in 1900.

Exhibit 6: Survival Curves for Select Historical Periods

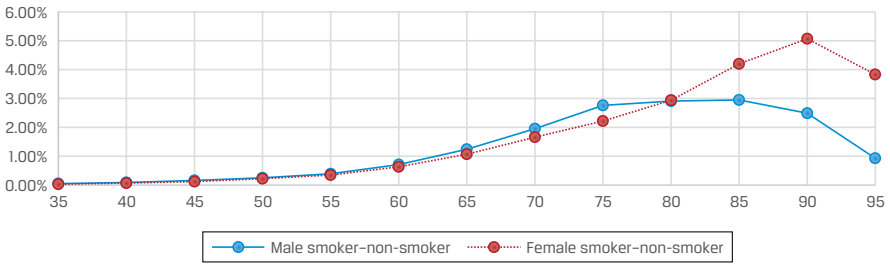


Source: Diamond (2009), "On the Future of Pensions and Retirements," in *The Future of Life-Cycle Saving and Investing: The Retirement Phase*, edited by Zvi Bodie, Laurence B. Siegel, and Rodney N. Sullivan, CFA, 15–30 (Charlottesville, VA: Research Foundation of CFA Institute, 2009). Based on data from the Foundation for Infinite Survival.

In the Western world, higher education and income levels correlate with even longer life expectancies. While life expectancy has increased, **health spans**—the period of a lifespan free from disease or disability—haven't increased at the same pace. This increases the need for retirement savings.

Health risks, such as smoking, lack of exercise, the occurrence of cardiovascular disease, obesity, and diabetes, significantly affect expected mortality and, consequently, the value of human capital. Exhibit 7 shows mortality rate differential between smoking statuses and biological sex difference. Women generally have lower mortality rates than men of the same age. The risk of death obviously increases with age and is higher for smokers than non-smokers. Wealth managers can refine these standard mortality tables by incorporating their clients' health histories and familial longevity, to better estimate human capital value and associated risks.

Exhibit 7: Incremental Conditional One-Year Mortality Rate of Smokers at Specific Ages by Sex



*Source:*Our calculations based on The American Academy of Actuaries' 2017 Commissioners Standard Ordinary (CSO) Tables, accessed 27 July 2023. https://www.soa.org/resources/experience-studies/2015/2017-cso-tables/

KNOWLEDGE CHECK: MORTALITY RISK

1. Consider a male and female of similar ages, health profiles, professional skill sets, and employment prospects. Whose human capital is exposed to greater risk?

   Solution:

   Females have longer life expectancy and are less likely than males of the same age to die. Therefore, all else being equal, the human capital of the female in this example is exposed to less risk. Other important factors to consider, however, are the likelihood of exiting the workforce during the child-rearing years and gender-related employment sensitivity to the business cycle.

Longevity Risk

Longevity risk is the possibility of depleting financial capital before death. Exhausting financial capital is a primary concern in retirement planning when retirement income can become limited. This is a risk for individuals living in countries where there are no guaranteed retirement income benefits through government or public retirement systems, where retirement income replacement levels post-retirement are low or inadequate, and where access to medical care and healthcare is neither universal nor adequate.

In most Western countries, retirement income replacement and healthcare access are generally sufficient but are not universal. For those with high human capital, income replacement through government-backed pension benefits is usually inadequate. Longevity risk is a major issue for the mass affluent population, because it can lead to financial difficulties in old age due to insufficient income replacement coupled with rising healthcare costs.

Uncertain lifespans create unpredictable investment and withdrawal timeframes in retirement, carrying multiple implications. Even in countries that provide significant pension benefits and healthcare to retirees at a low cost, incomes may be inadequate to support the hoped-for lifestyle, and insufficient savings may exacerbate the situation. Adding complexity, some pension plans inadequately account for inflation: they

either ignore it, partially adjust for it, or lag in making inflation-related adjustments. Additionally, the underfunding or potential underfunding of some pension systems casts doubt on their reliability for future payments.

HNWIs and ultra-high net worth individuals (UHNWIs) in numerous countries often opt for privately funding their healthcare expenses through their assets rather than depending on their nation's public healthcare system. Longevity risk and retirement sustainability are not as prominent concerns for HNWIs and UHNWIs compared to the mass affluent.

As individuals age, their spending patterns diverge from the consumption baskets used for pension indexing. This discrepancy can affect how well retirees are shielded from inflation, making pension reliance inherently risky.

KNOWLEDGE CHECK: ESTIMATING LONGEVITY

1. Friedrich is well-educated and retiring at age 65, and the mortality tables in his country indicate that a 65-year-old man has an expected life-span of 20 years. The conditional mortality tables (conditioned on his age) imply he has a 50% chance of living beyond the forecasted period. But Friedrich is healthy, exercises regularly, eats well, and has had annual physical examinations, and his parents lived until their late 80s, which was past life expectancy at that time.

   Estimate his remaining life span in retirement.

   Solution:

   Based on his life expectancy, Friedrich might anticipate a 20-year retirement. However, the conditional mortality tables indicate a 50% chance of him outliving this period, making a 20-year plan unreliable half the time. Friedrich is well-educated and healthy, which, combined with a family history of longevity, suggests that he will likely exceed average life expectancy. A 20-year plan may not be reliable. While adding additional years to the plan is inherently subjective, planning for an extremely advanced age like 110 minimizes the risk of outliving resources but may necessitate a frugal lifestyle, leading to potential surpluses or a diminished quality of life.

Retirement Needs Analysis using Simple Methods

The amount of capital needed to maintain a retiree's lifestyle can be estimated in several ways. The simplest method might be to multiply the desired annual retirement spending by the inverse of a sustainable withdrawal rate.

Consider a 60-year-old couple with no specific desire to transfer wealth to their children. How much they can spend from their portfolio without depleting their resources before the end of their lifetimes depends on their discretionary and non-discretionary expenses. Research suggests a sustainable annual spending rate between 3.5% and 6% of the initial portfolio value, assuming that spending increases by the inflation rate in subsequent years. This range translates into retirement savings that are approximately 17–29 times the amount of annual spending for retirees. Of course, those who retire later or have shorter life expectancies do not need such a sizable nest egg.

Retirement Needs Analysis using Mortality Tables

Another approach is to calculate expected future cash flows by multiplying each future cash flow needed by the probability that such cash flow will be needed, or survival probability. For spouses, the probability of survival in a given year is a joint probability that either the husband or the wife survives. Specifically, the probability that either the husband or the wife or both survives equals

$$p(Survival) = p(Husband\ survives) + p(Wife\ survives) - p(Husband\ survives) \times p(Wife\ survives), \quad (1)$$

assuming their chances of survival are independent of each other.

The present value of the spending need is then equal to

$$PV(\text{Spending need}) = \sum_{j=1}^{N} \frac{p(\text{Survival}_j) \times \text{Spending}_j}{(1+r)^j}. \quad (2)$$

The numerator is the expected cash flow in year *j*, that is, the probability of surviving until that year times the spending in that year should the person survive.

EXAMPLE 1

Ernest and Beatrice Webster

Ernest and Beatrice Webster, aged 79 and 68, respectively, have individual one-year survival probabilities of 93.6% and 98.3%, as shown in columns 3 and 5 of Exhibit 8. The Websters currently spend EUR500,000 annually.

Survival probabilities change each year and are conditioned on one surviving until a particular age. For instance, Ernest currently has an 87.02% chance of surviving to age 81. If he reaches age 80, this probability will increase because he has already made some progress in that direction.

The survival probability for either Ernest or Beatrice is higher than their individual probabilities; for example, the combined one-year survival rate in Year 1 for either or both is 0.9989 = 0.9355 + 0.9831 – 0.9355 × 0.9831, as indicated in column 6.

Exhibit 8: Example of Retirement Calculation for Ernest and Beatrice Webster

	Ernest		Beatrice					
Year (1)	Age (2)	*p*(Survival) (3)	Age (4)	*p*(Survival) (5)	Combined *p*(Survival) (6)	Annual spending (in EUR) (7)	Expected spending (in EUR) (8)	Discounted value (in EUR) (9)
1	80	0.9355	69	0.9831	0.9989	500,000	499,457	489,664
2	81	0.8702	70	0.9649	0.9954	515,000	512,654	492,747
3	82	0.8038	71	0.9457	0.9893	530,450	524,800	494,531
4	83	0.7339	72	0.9249	0.9800	546,364	535,443	494,666
5	84	0.6686	73	0.9025	0.9677	562,754	544,581	493,244
6	85	0.6001	74	0.8785	0.9514	579,637	551,476	489,695
7	86	0.5327	75	0.8526	0.9311	597,026	555,893	483,938
8	87	0.4674	76	0.8252	0.9069	614,937	557,682	475,976
9	88	0.4048	77	0.7958	0.8785	633,385	556,412	465,580
10	89	0.3459	78	0.7646	0.8460	652,387	551,947	452,789
11	90	0.2912	79	0.7311	0.8094	671,958	543,909	437,446
12	91	0.2414	80	0.6952	0.7688	692,117	532,095	419,553

	Ernest		Beatrice					
Year (1)	Age (2)	*p*(Survival) (3)	Age (4)	*p*(Survival) (5)	Combined *p*(Survival) (6)	Annual spending (in EUR) (7)	Expected spending (in EUR) (8)	Discounted value (in EUR) (9)
13	92	0.1968	81	0.6582	0.7254	712,880	517,156	399,778
14	93	0.1576	82	0.6173	0.6776	734,267	497,573	377,098
15	94	0.1239	83	0.5775	0.6298	756,295	476,345	353,931
16	95	0.0955	84	0.5340	0.5785	778,984	450,638	328,265
17	96	0.0720	85	0.4894	0.5262	802,353	422,165	301,494
18	97	0.0532	86	0.4441	0.4736	826,424	391,431	274,064
19	98	0.0373	87	0.3987	0.4211	851,217	358,456	246,055
20	99	0.0262	88	0.3538	0.3707	876,753	325,053	218,751
21	100	0.0180	89	0.3100	0.3224	903,056	291,161	192,101
22	101	0.0000	90	0.2679	0.2679	930,147	249,204	161,195
23	102	0.0000	91	0.2281	0.2281	958,052	218,569	138,607
24	103	0.0000	92	0.1912	0.1912	986,793	188,652	117,289
25	104	0.0000	93	0.1575	0.1575	1,016,397	160,043	97,551
26	105	0.0000	94	0.1273	0.1273	1,046,889	133,275	79,643
27	106	0.0000	95	0.1009	0.1009	1,078,296	108,795	63,739
28	107	0.0000	96	0.0783	0.0783	1,110,645	86,937	49,935
29	108	0.0000	97	0.0594	0.0594	1,143,964	67,905	38,238
30	109	0.0000	98	0.0439	0.0439	1,178,283	51,764	28,578
31	110	0.0000	99	0.0317	0.0317	1,213,631	38,452	20,812
32	111	0.0000	100	0.0000	0.0000	1,250,040	—	—
							Total	9,176,955

The Websters currently spend EUR500,000 annually. Their inflation-adjusted annual spending needs are calculated based on that annual spending and are increased annually using the 3% growth rate to reflect retirement spending inflation.

Their expected annual spending, shown in column 8, is derived from multiplying their joint survival probability with their inflation-adjusted spending needs from column 7, Annual Spending. Using a real risk-free discount rate of 2.0%, each year's expected spending is discounted to its present value. The sum of these present values adds up to the Websters' retirement needs, approximately EUR9,176,955.

Wealth managers should anticipate diverse spending patterns in retirement. Some spending will reflect the impact of inflation and increase, while others will not increase with inflation. Spending that will likely increase less than inflation typically includes one-off large expenses such as purchase of second homes, financial support to family members, or spending on travel as the client ages. Additionally, there is also a shift in spending from travel costs to healthcare costs that have different inflation rates. That is why a comprehensive analysis of retirement spending needs a Monte Carlo simulation to assess all various underlying factors, such as health status, spending aspirations during retirement, and support for children and charities.

The spending analysis can be refined by adjusting each year's estimated expenses based on the survival probability of each spouse. Based on the above example, if Ernest dies early, Beatrice's financial needs could change: They could be either lower or higher than when he was alive. Although individual circumstances will dictate,

some economists estimate that maintaining a lifestyle for two costs 1.6 times that of one person (Kotlikoff [2008]). Using this figure, if Ernest passes away, Beatrice could sustain the same standard of living with 62.5% of their joint spending.

In the above approach, spending needs are discounted at the real risk-free rate, which aligns with the risk profile of these cash flows. Although these cash flows bear some uncertainty, that risk is most likely not correlated with market risk factors typically priced in a normal asset pricing model, setting their beta to zero. One may argue that the non-systematic mortality risk is non-diversifiable, yet it can be effectively hedged with life insurance. Therefore, discounting spending needs with the risk-free rate is appropriate.

It is tempting to discount spending needs using the expected return of the assets used to fund them. This would be a flawed approach. The risk of the Websters' spending needs is fundamentally separate from the risk profile of their asset portfolio. Additionally, employing the expected asset return as the discount rate would introduce circular logic: the retirement spending needs are met through asset accumulation, so using those expected returns to calculate the required capital would yield inaccurate estimates.

Safety Reserve

A spending needs analysis that discounts cash flows at the risk-free rate overlooks the risks inherent to capital markets and potentially underestimates true retirement capital needs. This can be addressed by establishing a safety reserve that fulfills two objectives:

- First, it provides *a capital cushion* if capital markets produce a longer sequence of unusually poor returns that threaten the sustainability of the planned spending.
- Second, if the client has *a bequest motive*, a safety reserve provides discretionary spending beyond what was initially envisioned, contingent on favorable investment returns.

The safety reserve mitigates market uncertainties, changes in spending patterns, and unpredictable family obligations. Its size can be determined based on a subjective assessment of the circumstances. For example, Evensky, Horan, and Robinson (2011) advocate a safety reserve equal to two years of spending. Their reasons are behavioral as well as practical. The reserve acts as a mental cushion for the investor, insulating their spending needs from short-term market fluctuations. This buffer enhances the investor's ability to adhere to their investment strategy during turbulent or unfavorable market conditions.

KNOWLEDGE CHECK: RETIREMENT NEEDS ANALYSIS WITH MORTALITY PROBABILITIES

Attila and Julia Szabo live in Hungary and are 64 and 61 years old, respectively. Their survival probabilities based on their current ages are listed in the table below. They would like to maintain annual spending of HUF10 million on an inflation-adjusted basis. Inflation is expected to be 3%, and the nominal risk-free rate is 5%.

	Attila		Julia	
Year	Age	p(Survival)	Age	p(Survival)
1	65	0.991	62	0.996
2	66	0.981	63	0.986
3	67	0.971	64	0.976

1. What is the probability that Attila, Julia, or both will survive in each of the next three years?

   Solution:

   The probability that either Attila or Julia will survive is equal to the sum of their individual probabilities minus the product of their individual probabilities. For the next three years, the joint probability of survival is

Year	Joint *p*(Survival)
1	0.9999
2	0.9997
3	0.9993

2. What is the capitalized value of their retirement spending needs over the next three years?

   Solution:

   The capitalized value of their retirement spending needs equals the product of the joint probability of survival and the real spending need for each year discounted using the real risk-free rate. Alternatively, one may discount the nominal expected cash flow at the nominal risk-free rate. Using the first approach, the real cash flows will remain constant and be discounted at approximately 2% (or 5% minus 3%).

Year	Annual spending (in HUF)	Expected spending (in HUF)	Discounted value (in HUF)
1	10,000,000	9,999,600	9,803,600
2	10,000,000	9,997,300	9,609,100
3	10,000,000	9,993,000	9,416,700
			28,829,400

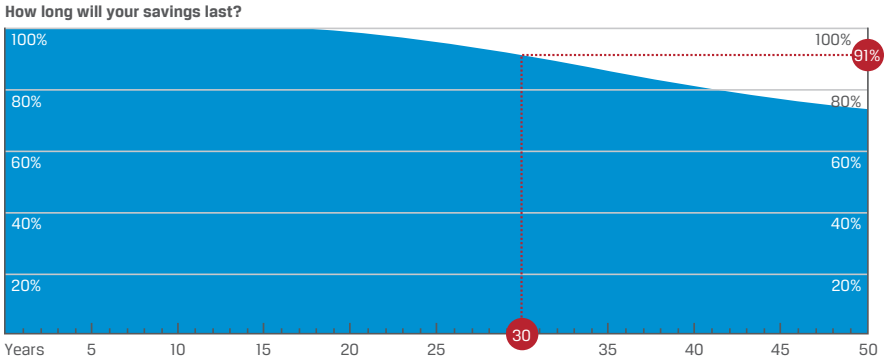
Probability of Financial Capital Depletion

Wealth managers often assess the sustainability of various withdrawal rates. Bengen (1994) used historical US returns to evaluate the sustainability of withdrawals at different rates and asset allocations. With a 50/50 equity/bond mix, a 5% withdrawal rate depleted the portfolio about 25% of the time within 30 years. Withdrawal programs initiated in the late 1960s and early 1970s performed the worst, even worse than during the Great Depression, due to consistently poor returns across both asset classes. Spitzer, Strieter, and Singh (2007) further found a 6% chance of financial ruin using Bengen's 4% withdrawal rate with a 50/50 asset allocation.

Many financial platforms have retirement simulation software that estimates the probability of success for various time horizons (Exhibit 9). Predictably, three factors are dominant in driving success rates (or, conversely failure rates):

1. *Withdrawal Rate*: Higher withdrawal rates increase the risk of portfolio depletion. UHNWIs, or those with resources beyond the needs for a traditional retirement portfolio, have small withdrawal rates and face low longevity risk. Families relying more on their retirement funds and drawing higher rates are at greater longevity risk.
2. *Time Horizon*: Longer retirement periods amplify longevity risk. Individuals retiring early and in good health face higher longevity risk compared to those retiring late and in poorer health.
3. *Portfolio Expected Return*: Lower expected returns on the investment portfolio increase the risk of asset depletion. Therefore, considering capital market assumptions and asset allocation is crucial in assessing this risk. This is the core portfolio construction and asset allocation problem in retirement.

Exhibit 9: Sustainability Success Rates for Various Time Horizons



Mortality risk increases the likelihood of a retirement withdrawal program being successful. The **probability of ruin** is the likelihood that an investor will deplete their financial assets before meeting a specific financial obligation or goal, including sustaining spending throughout retirement. It is a key metric used to assess the sustainability of an investment or retirement strategy. A higher probability of ruin suggests a greater risk of asset depletion, warranting a reevaluation of the strategy or assumptions involved.

Longevity risk directly amplifies the probability of ruin by requiring individuals to stretch their retirement savings over an uncertain and potentially longer lifespan, making it more likely that they will run out of money. Wealth managers who do not use annuities typically assume a conservatively long-time horizon, such as a maximum life span with 95% confidence for planning purposes. Extending the planning period for a long retirement, such as for a 30-year retirement window provides flexibility and reduces the risk that the client will exhaust their savings, thereby lowering the probability of ruin.

Using historical US return data, for example, Stout and Mitchell (2006) show that a 4.5% fixed withdrawal rate results in a 13.4% probability of ruin over a 30-year horizon. It drops by half, to only 7.16%, however, if one considers that an investor may pass away in less than 30 years.

In the United States, the Internal Revenue Service has provided a particularly useful way in which to determine sustainable retirement spending—it requires a minimal distribution from retirement savings such as an Individual Retirement Account. This Required Minimum Distribution considers the retiree's age and conditional life expectancy and is surprisingly close to an optimal spending rule.

Retirement Needs Analysis Using Monte Carlo Analysis

The Monte Carlo approach estimates the portfolio size needed for sufficient withdrawals to cover inflation-adjusted expenses, offering a more comprehensive risk assessment than the mortality table method. It factors in recurring and irregular spending, taxes, and inflation by simulating both cash flows and asset returns. Wealth managers can use this method to estimate the required capital for sustaining a specific spending pattern over a chosen time horizon, such as with a 95% confidence level. This approach more fully captures the risk inherent in capital markets—and the returns generated by the markets to fund retirement spending—than the mortality table approach described above.

One can model recurring spending needs, irregular liquidity needs, taxes, inflation, and other factors into the analysis by simulating cash flows in addition to asset returns. The safety reserve may also be added to accommodate desired flexibility in spending patterns. It need not be quite as large as that used in the mortality table method because the Monte Carlo model already accounts for the risk of consecutive poor market returns.

Unlike the mortality table method, which discounts cash flows at the risk-free rate, Monte Carlo analysis derives expected returns based on market expectations for the portfolio's assets.

Milevsky and Robinson (2005) introduced a method for determining sustainable spending rates that approximates Monte Carlo simulation outcomes without requiring actual simulation. This approach accounts for both lifespan uncertainty and financial market risk. Exhibit 10 presents an example of ruin probabilities (i.e., the probability of depleting one's financial assets before death) based on their analysis.

For instance, Mr. Harper, a single 65-year-old with an annual spending need of EUR500,000, is open to a 9% risk that his spending will deplete his portfolio before his death, equating to a 91% confidence level. This 9% figure represents his probability of ruin, indicating the risk that his spending pattern is not sustainable.

Exhibit 10: Ruin Probability for Balanced Portfolio of 50% Equity and 50% Bonds

Retirement age	Median age at death	Real annual spending per USD100 of initial nest egg								
		2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
Endowment	Infinity	6.7%	24.9%	49.0%	70.0%	84.3%	92.5%	96.6%	98.6%	99.4%
50	78.1	1.8	6.4	14.0	24.0	35.2	46.3	56.8	66.0	73.8
55	83.0	1.8	6.3	14.0	24.0	35.1	46.2	56.7	65.9	73.7
60	83.4	1.5	5.2	11.6	20.1	29.9	40.1	50.0	59.1	67.2
65	83.9	1.1	4.0	9.0	15.8	24.0	32.8	41.8	50.5	58.5
70	84.6	0.8	2.8	6.3	11.4	17.6	24.7	32.2	39.8	47.2
75	85.7	0.5	1.7	3.9	7.2	11.4	16.3	21.9	27.8	33.9
80	87.4	0.3	0.9	2.0	3.8	6.2	9.1	12.5	16.3	20.5

Note: Mean arithmetic portfolio return = 5%; standard deviation of return = 12%; geometric mean portfolio return = 4.28%.
Source: Milevsky and Robinson (2005).

Assuming a balanced portfolio with a 5% mean return and 12% volatility, the analysis sets the spending rate based on the initial portfolio value and adjusts it annually for inflation. Mr. Harper can afford to spend 4% of his capital annually, adjusting for inflation, if he accepts a 9% risk of ruin. Consequently, he would need EUR12.5 million to sustain annual spending of EUR500,000 (EUR12,500,000 = EUR500,000/0.04). If Mr. Harper is willing to take on a higher risk of ruin, say 15.8%, he would need less capital—specifically, EUR10 million—to maintain the same annual spending rate.

While most Monte Carlo analyses assume normally distributed returns, actual historical returns are skewed to the left and have fat tails. Both of these characteristics diminish the sustainability of withdrawal programs and increase the required capital for any given withdrawal rate. A well-thought-out Monte Carlo simulation requires reasonable and realistic capital market assumptions that reflect current market conditions and future economic prospects. Ideally, the simulation should account for the actual distribution of returns, including skewness, kurtosis, and autocorrelation, although achieving this level of complexity is challenging, explaining why many simulations rely on simplifying assumptions.

KNOWLEDGE CHECK: CORE CAPITAL WITH MONTE CARLO ANALYSIS

Sophie Zheng, a 55-year-old recent widow in Singapore, has received SGD2 million from her late husband's assets and life insurance to sustain her lifestyle. She has no children and no specific bequest motive but has set up a charitable remainder trust (CRT) for her lifetime needs, with any remaining funds going to her chosen charity upon her death. Assume the trust's asset allocation conforms to the capital market expectations from Exhibit 10.

1. Under the assumptions made by Milevsky and Robinson, what can Zheng withdraw from the CRT to have a 98% confidence level?

   Solution:

   The 55-year-old retirement age row in Exhibit 10 indicates that Zheng's median age, using US mortality data, at death is approximately 83 years old, or 28 years away. However, she is as likely to live longer than age 83 as she is to die before she turns age 83. To be at least 98% certain that she does not run out of money, Zheng's maximum probability of exhausting her assets should not exceed 2%. A spending rate of USD2 per USD100 of assets has a ruin probability of 1.8%. So Zheng can withdraw approximately 0.02 × SGD2,000,000 = SGD40,000 with 98% certainty that the portfolio will last for the remainder of her life.

2. Under the assumptions made by Milevsky and Robinson, what would the withdrawal amount be if Zheng is comfortable with a 94% confidence level?

   Solution:

   If Zheng can tolerate a 6% failure rate of not achieving her goals, then she can withdraw almost 3% from the CRT annually on an inflation-adjusted basis, or 0.03 × SGD2,000,000 = SGD60,000, according to Exhibit 10. A spending rate of SGD3 per SDG100 of assets has a ruin probability of 6.3%, which is very close to the stated failure rate of 6%.

Estimating the Retirement Liability in the Annuity Market

To estimate the funds needed for a specific retirement spending level, one straightforward method is to look at annuity pricing. Annuity rates are generally determined by expected investment returns and mortality rates, calculated actuarially.

Suppose the Smiths, a retired couple, would like to spend USD100,000 annually on an inflation-adjusted basis through retirement. If an insured, immediate, inflation-adjusted, fixed annuity were available in the marketplace at a 5% interest rate, then the Smiths would need to spend USD2 million to fund their retirement.

While this simple approach does not mean the Smiths should necessarily opt for such an annuity, it leverages the insurance industry's detailed calculations for providing an inflation- and longevity-risk–free cash flow stream.

Sequence-of-Returns Risk

Sequence-of-returns risk intensifies longevity risk, especially when large negative returns precede in a withdrawal program. A portfolio's sustainability is jeopardized when initial returns are poor because parts of it are liquidated at depreciated values, leaving less capital for potential future gains. For example, a EUR100 portfolio with a EUR10 withdrawal annually and returns of +50% and –50% will have a 20% difference in value after two years depending on the sequence of returns.

A comprehensive simulation is required to grasp the full implications of sequence-of-returns risk on retirement spending. It's pivotal to understand that this risk can be attenuated by prolonging one's career and adjusting spending, thereby diminishing substantial withdrawals during market downturns. Consecutive negative returns early in retirement can substantially curtail the ability to maintain desired spending levels.

EXAMPLE 2

Return Sequence

Consider a simple JPY100 million portfolio with no withdrawals over three years in panel A of Exhibit 11. The average annual return is 10% with volatility of 15%. In the absence of withdrawals, the sequence of investment returns does not affect the amount of ending wealth.

Panel B adds a JPY10 million periodic withdrawal. If good returns come before poor ones, the principal remains intact. Conversely, if poor returns come first, the investor is left with just JPY85 million after one year to support future withdrawals. This results in JPY6 million less wealth after three years, failing to preserve the principal even though average returns are consistent in both sequences. This is due to the compound effect of initial poor returns and withdrawals at depressed prices.

Exhibit 11: Different Return Patterns with and without Withdrawals

Panel A: Without Withdrawals				
Year	**0**	**1**	**2**	**3**
Withdrawal		0	0	0
Return		25%	10%	–5%
Portfolio	100	125	138	131
Withdrawal		0	0	0
Return		–5%	10%	25%

Panel A: Without Withdrawals				
Year	**0**	**1**	**2**	**3**
Portfolio	100	95	105	131
			Difference	0

Panel B: With Withdrawals				
Year	**0**	**1**	**2**	**3**
Withdrawal		10	10	10
Return		25%	10%	–5%
Portfolio	100	115	117	101
Withdrawal		10	10	10
Return		–5%	10%	25%
Portfolio	100	85	84	94
			Difference	6

Panel C: Withdrawals and Higher Volatility				
Year	**0**	**1**	**2**	**3**
Withdrawal		10	10	10
Return		35%	10%	–15%
Portfolio	100	125	127.5	98
Withdrawal		10	10	10
Return		–15%	10%	35%
Portfolio	100	75	73	88
			Difference	10

Finally, Panel C shows that higher return volatility exacerbates sequence-of-returns risk during withdrawals. While the average return stays at 10%, volatility jumps from 15% to 25%, nearly doubling the impact on the portfolio's final value.

Consider periodic withdrawals as the inverse of dollar-cost averaging. In dollar-cost averaging, regular, fixed contributions capitalize on market volatility, enabling the investor purchasing more shares at lower prices, reducing the average cost of each share. This provides a buffer against market downturns and enhances long-term returns. However, in a retirement strategy that involves fixed withdrawals, market volatility works against the retiree. If the market is down and a fixed sum is withdrawn, the retiree must sell more shares to meet that withdrawal amount, thereby accelerating the depletion of retirement assets. Prolonged market downturns exacerbate this issue, significantly increasing the risk of depleting all savings and raising the probability of ruin.

Impact of Financial Capital Depletion

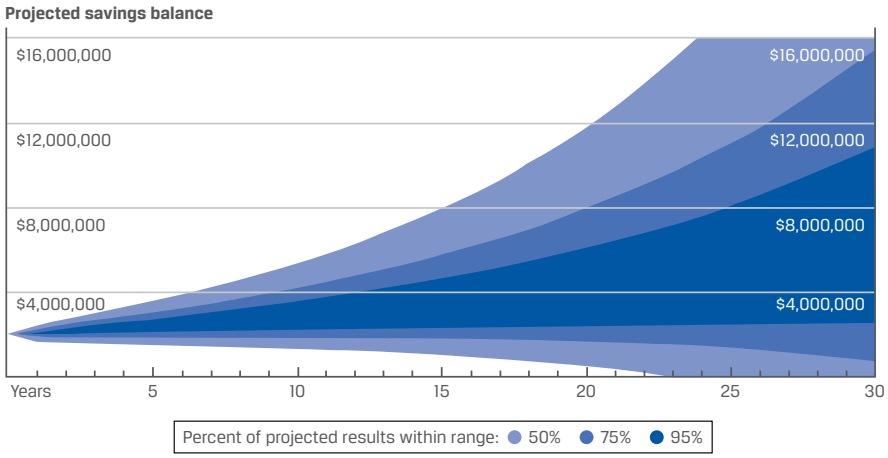
Longevity risk is influenced not just by the probability of failure but also by the impact of such failure. For instance, a retirement program that fails early in retirement generally has more severe life consequences than one failing later. Wealth managers should evaluate both the likelihood and severity of retirement portfolio depletion when exploring existing risk mitigation strategies. Although many countries offer social programs to shield the elderly from outliving their assets, covering health care and living expenses toward life's end, the impact of financial capital depletion should be analyzed.

To mitigate the effects of financial capital depletion, insurance products like deferred annuities, which we cover later, can be effective. These annuities begin payouts only after the client reaches a specified age. However, for cost-efficiency and maximum client benefit, it's crucial to plan for and implement these financial instruments early.

Volatility of Success

An underemphasized facet of longevity is the variability in successful outcomes. Residual accumulations in successful retirement withdrawal scenarios, which conceptually serve as bequests, can differ substantially. Exhibit 12 illustrates the spectrum of potential outcomes based on certain assumptions. While less than 5% of simulated trials are unsustainable for 30 years, the outcomes of the successful ones can vary from zero to tens of millions of dollars. This broad range has profound implications for bequests and potential missed consumption opportunities.

Exhibit 12: Future Accumulations for Various Retirement Time Horizons



Minimizing longevity risk involves avoiding both over-saving and under-spending, as each could prevent a client from fully benefiting from their assets. Longevity risk also influences human capital: individuals worried about outliving their resources may opt to work longer, thereby increasing their human capital but potentially sacrificing retirement years. Indeed, all else being equal, the person who is concerned about outliving his or her money and who intends to work longer has more human capital, but at the possible expense of a shortened retirement stage, which may be undesirable. In other words, working longer reduces longevity risk.

Moreover, longevity risk is closely tied to wealth. Ultra-wealthy individuals have a lower risk of outliving their assets than those with fewer resources. Essentially, the ratio of spending to wealth, or the withdrawal rate, is the primary determinant of longevity risk and the probability of ruin.

KNOWLEDGE CHECK: INDIVIDUAL RISK EXPOSURES

1. Describe mortality risk with respect to financial and human capital.

   Solution:

   Mortality risk is the possibility an individual dies before fully providing for his or her financial needs (and, if applicable, those of the family). At death,

human capital is eliminated because the deceased individual can no longer generate income. To a lesser degree, there may also be an impact on financial capital. In addition to expenses associated with a funeral and burial, there may be a need for significant transitional funds or even a requirement to settle certain debts or business obligations upon the individual's death. Funds may also be required for education and/or training of the surviving spouse to generate income.

2. Describe longevity risk and explain how it relates to human and financial capital.

Solution:

Longevity risk is the possibility that an individual may live long enough to deplete his or her financial resources—to outlive one's money. Longevity risk relates primarily to financial capital—that is, spending one's retirement portfolio. It may have implications for human capital, as well, if one works longer (retires later), thereby increasing their human capital that can be converted to a larger retirement portfolio as well as reducing the number of years for which retirement withdrawals must be sustained.

Health Risk

Health risk encompasses both direct and indirect costs stemming from unexpected illness or injury, affecting human capital. The effect of adverse health events on human capital can be assessed by calculating the mortality-weighted discounted cash flows that incorporate declines in expected earnings and increased earnings uncertainty. The ramifications of health risks differ across life stages. For instance, indirect costs like earnings disruptions due to chronic illnesses may be more pronounced early in a career, whereas direct healthcare expenses usually escalate later in life.

In certain countries, the out-of-pocket healthcare costs are significant, contingent on the nature of public healthcare and general insurance coverage.

Disability Risks

Disability, which significantly constrains employment opportunities, poses a greater probability of occurrence than mortality. It often necessitates specialized medical care, housing, and transportation. Occupational factors also influence health risks. Jobs in construction carry a higher likelihood of physical injury than academic roles. Consequently, earnings from hazardous occupations exhibit greater variability, affecting the human capital's expected value. Additionally, for families with disabled children lacking public support, the financial commitment could persist beyond the parents' lifespan.

DISABILITY OF A SURGEON

Insurance providers usually define disability in one of three ways:

1. Inability to execute critical tasks of one's current job
2. Inability to perform tasks in any job matching one's education and experience
3. Inability to work in any occupation

For example, a surgeon who loses functionality in their dominant hand would be fully disabled under the first definition, partially disabled under the second, and possibly not disabled under the third if they could work in another medical role. For professionals with specialized skills, disability insurance coverage under the first definition is often the most suitable, albeit more costly.

Long-Term Care

Long-term care involves services needed when one becomes incapable of conducting activities of daily living, which normally becomes a significant financial concern later in life. While countries like Germany and Japan integrate long-term care into their national healthcare systems, in the United States, it poses a considerable drain on individual financial resources.

Both a health and longevity risk, the financial burden of long-term care often extends to adult children who may have to cover the costs for aging parents. These costs are also vulnerable to inflation risk, with long-term care expenses historically outpacing baseline inflation rates. Cultural factors further complicate this, because in some societies, adult descendants are expected to shoulder the care of their elderly relatives.

QUESTION SET

1. Briefly identify and describe the five key steps in the risk management process. Provide illustrative scenarios where possible.

   Solution:

   The five steps are:

   1. Identify: As the name suggests, there is a need to rigorously identify sources of risk associated with both the asset and liability sides of the portfolio. For example, a government fixed-income bond is primarily exposed to interest rate risk as well as liquidity risks.
   2. Measure: Once a risk is identified, we need to assess the magnitude of the risk. Continuing our example, it might be determined that for every 1 bps the yield curve goes up, the value of the position goes down by USD10,000. Given the volatility of interest rates, the risk manager might be able to assign a likelihood that losses can be capped at a certain level.
   3. Evaluate: Ask the question: "Is the magnitude of a given risk acceptable?" This might also involve analysis of how this risk interacts with other risks in the portfolio.
   4. Respond: What should be done? Decrease/Eliminate, Transfer, Retain? A decision/strategy needs to be executed. For example, we could sell the position or decrease the sizing.
   5. Monitor: Keep an eye on how the risk profile looks as we move forward in time.

2. Which of the following best states what happens to the relative sizing of assets and liabilities as we move from the mass affluent to UHNW class of investors? Discuss the implications, if any.

   A. The sizing of liabilities tends to eclipse that of assets.

   B. The sizing of assets tends to eclipse that of liabilites.

C. There is no substantive difference.

Solution:

B is the best response.

As we move up the ladder, the scale of assets will tend to greatly dominate that of liabilities. Accordingly, the focus shifts from paying attention to risk regarding capital insufficiency toward how best to manage assets over the long run.

3. Which of the following occupations would be associated with the least human capital risk?

A. Human resources administrator for a government agency

B. Risk manager at a leading hedge fund

C. Fast food restaurant manager

Solution:

A is the best response.

Given that a human resources administrator for a government agency is a government job, the risk of layoff is lowest. Furthermore, human resources is a profession that is in demand across many industries, and therefore, it is easier to replace the income stream in an adverse event. B is riskier as investment management is a much riskier domain. Furthermore, there are fewer options for replacement in comparison to A. C has a good deal of cyclicality risk, as well as business failure risk, although there will be opportunities to replace at times.

4. Adopting a healthier lifestyle would be expected to reduce:

A. mortality risk only.

B. longevity risk only.

C. both mortality risk and longevity risk.

Solution:

Option A is the correct response.

Adopting a healthier lifestyle is generally correlated with a longer life expectancy—implying that the annual risk of mortality decreases. However, a longer life also increases the probability of outliving one's financial resources, hence elevating the longevity risk.

5. Does sequence-of-returns risk differ during the accumulation phase and the withdrawal phase?

A. No.

B. Yes, it is greater during the accumulation phase.

C. Yes, it is greater during the withdrawal phase.

Solution:

C is correct. In the absence of withdrawals, the sequence of investment returns does not affect the amount of ending wealth.

6. A drawback of minimizing longevity risk is that it may:

A. deprive the client of the benefit of their resources.

B. reduce the ability to pass wealth to the client's heirs.

C. encourage the client to retire earlier than they should.

Solution:

A is correct. An aspect of minimizing longevity risk is the risk of over-saving (i.e., under-spending) in the accumulation phase or conversely under-spending in the distribution phase, both of which deprive a client of the benefit of their resources.

RESPONDING TO RISKS TO HUMAN CAPITAL

3

☐ describe and recommend strategies to manage risks to human capital

Wealth managers can use various approaches to manage the risks facing their clients. They may advise clients to mitigate, avoid, transfer, or retain risks. While many of the risks described earlier have low probability of occurring, potentially their impact can be sizeable. To mitigate the effects such low probability but high impact risks, risk pooling, or insurance, is often the most economically efficient approach, although avoidance, mitigation, and retention are also viable options. This section explores these options.

The terms used align with US insurance industry standards, but similar products with varying names and comparable features are available globally.

Responses to Employment Risk and Mortality Risk

A form of risk avoidance to human capital is to reduce earnings volatility or earnings correlation with equity markets associated with employment risk by choosing a career with a relatively reliable earnings stream or transferrable skills. Both mortality risk and employment risk can cause earnings disruption.

Insurance is an important risk transfer alternative and is often a more economically efficient way to address low probability, high negative impact events. The terminology here follows US insurance industry standard nomenclature. Similar products exist elsewhere, and their names and features may be different.

A straightforward approach to address risks associated with unexpected income disruptions or expenses is to build a reserve of precautionary savings. This form of risk retention is part of many investment portfolios. It can similarly be applied and extended to respond to employment risk and mortality risk. A common rule of thumb is to build a precautionary cash reserve of at least 3, 6, or 9 months of living expenses to protect against unexpected earnings disruptions. Small business owners or those with high earnings volatility may choose a larger reserve than a long-term government employee.

Precautionary saving is an integral element in an overall private wealth management program. But mitigating the impact of risks carries an opportunity cost: sacrificing potential consumption and investment returns. The safety reserve discussed above, a response to longevity risk and investment risk in the retirement setting, serves as an example.

Life Insurance

Life insurance is a hedge against the risk of the premature death of an earner and is expected to cover the difference in lost future earning power of the individual minus the expected future spending of that individual. Life insurance transfers the risk to a third party. The optimal amount of insurance to purchase is a function of both the cost of providing the insurance, i.e., the expenses of the insurance company, and the size of the difference in expected lifetime utility, that is, the well-being, happiness, and financial stability of the family, with and without that family member.

There are two primary methods to calculate the required life insurance coverage:

- *The Human Life Value Method* focuses on the asset side of the family's extended balance sheet, quantifying human capital. This method estimates the net present value of the insured's future earnings, offset by certain incremental future expenses. These net annual amounts are discounted to present value to ascertain the needed insurance coverage. An additional sum may be allocated for final expenses, like funeral costs.
- *The Needs Analysis Method* targets the liability side of the family's extended balance sheet. It aims to stabilize consumption levels by compensating for the lost income and preventing reduced family spending. This method estimates both immediate death-related costs and ongoing living expenses for surviving family members. These costs are then discounted to present value and adjusted for a smaller household size. Existing assets are deducted from the total funds required, resulting in the final life insurance need.

When evaluating insurance coverage, both the cost of the insurance coverage and the insurance company's ability to meet its financial obligations are important considerations. Rating agencies assess an insurance company's financial strength, which signals the insurer's ability to fulfill obligations and withstand adverse market conditions.

KNOWLEDGE CHECK: APPROPRIATENESS OF LIFE INSURANCE

1. Consider two potential life insurance candidates: (1) a 40-year-old doctor who is married with two young children, substantial educational and business loans, and sizable earnings; and (2) a 35-year-old single person with a moderate amount of financial wealth. Based on the information presented, which person would be a more appropriate candidate for life insurance and why?

   Solution:

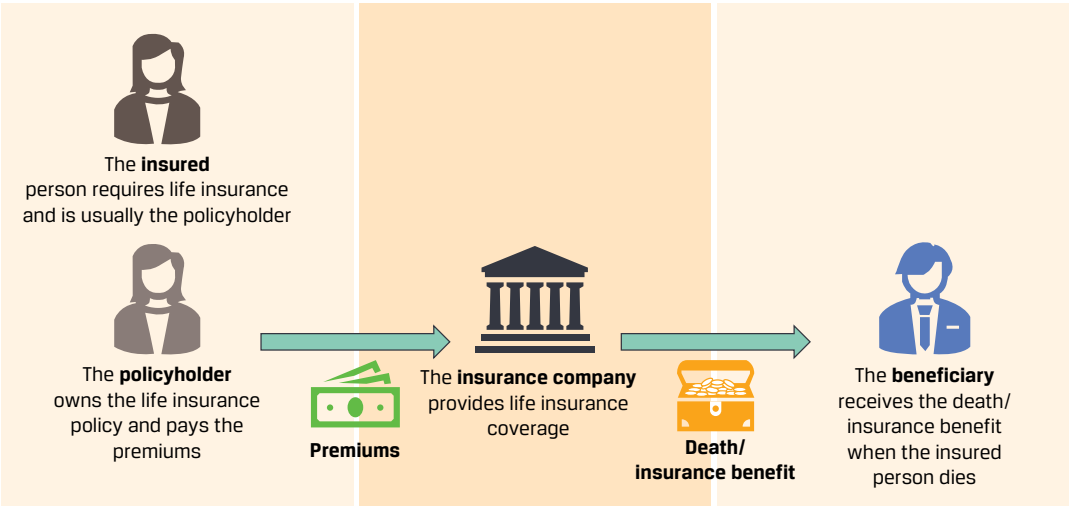
   The 40-year-old doctor is the better candidate for life insurance due to substantial earnings, educational and business loans, and two young dependents. Life insurance can hedge against the loss of high future earnings potential and cover loan repayments and other liabilities upon death.

   On the other hand, the 35-year-old, who is single and moderately wealthy, lacks dependents who would require financial support.

Basic Elements of a Life Insurance Policy

The insured, the policy owner, the beneficiary (or beneficiaries), and the insurer are the four primary parties involved in any life insurance policy, as Exhibit 13, shows.

Exhibit 13: Parties to a Life Insurance Contract



The basic elements of a life insurance policy include:

- the term and type (e.g., a 20-year term policy);
- the policy owner responsible for paying the premium;
- the identity (name, age, gender) of the insured;
- the beneficiary or beneficiaries slated to receive the death benefit;
- the insurer writing the policy and responsible for paying the death benefit;
- the premium schedule outlining the amount and frequency of premium payments;
- the amount of the death benefit, or face value (e.g., GBP100,000);
- the contestability period during which the insurance company can investigate and deny claims;
- limitations under which the death benefit could be withheld (e.g., suicide within two years of issuance or any material misrepresentations); and
- modifications by policy riders.

For jointly owned policies, the actual beneficiary depends on the sequence of deaths among potential beneficiaries, such as spouses. Death benefits from a life insurance policy can be paid in various forms, such as a lump sum or an annuity, although lump sums are generally more prevalent.

In general, the policy owner and the insured are the same. However, there are exceptions in which a third party may be the policy owner to hedge against economic loss from another's death. For instance, a business might insure its key executives, anticipating adverse financial impact from their passing. Life insurance benefits also serve as a tool in long-term wealth planning, especially for affluent families, as they can cover estate and inheritance taxes.

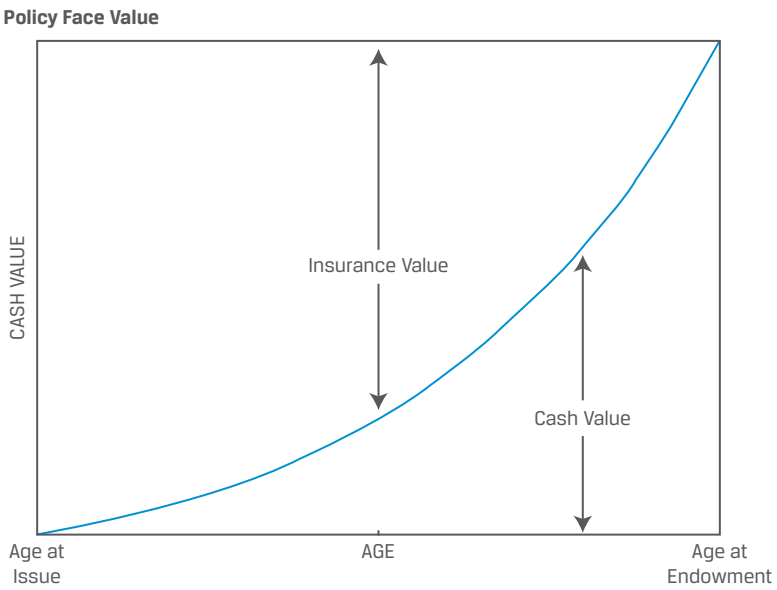
Types of Life Insurance

The two main types of life insurance are term and permanent, both are assumed to be non-cancelable for the context of this reading. A non-cancelable insurance policy remains active until either the end of its specified term for term life insurance or the death of the insured for permanent life insurance.

- **Term life insurance** provides insurance for a certain time period specified at purchase, such as 20 years, and expires if the insured survives until the end of the period unless the policy is renewed. The premiums can be constant or increase over time due to elevated mortality risk. Level-term policies have higher initial premiums compared to annually renewable policies but become more economical in later years. This is because the premiums of annually renewable policies tend to escalate quickly. Insurers may offer low starting premiums on these annually renewable policies, expecting that customers will continue to pay the rising rates.
- **Permanent life insurance** provides lifetime coverage, provided the premiums are paid throughout the entire period. The premiums for permanent life insurance are usually fixed, and a portion of them is invested to generate a cash value. This investment feature can yield interest or other returns and builds up over time. Notably, the premium for a permanent policy is higher than that for a comparable term policy. Essentially, a permanent life insurance policy is a bundled product combining term insurance with an investment account that accumulates cash value. This structure allows for both risk retention through the cash value and risk transfer via the term insurance component.

The cash value typically reverts to the insurer upon the death of the insured, while beneficiaries receive just the face value of the policy when the insured dies. Cash values build up very slowly in the early years. As the cash value increases, however, the insurance value decreases (see Exhibit 14), and the ongoing premium is paying for less and less life insurance.

Exhibit 14: Build-Up of Cash Value in a Permanent Life Insurance Policy



The policyholder can access the cash value of a whole life insurance policy in several ways:

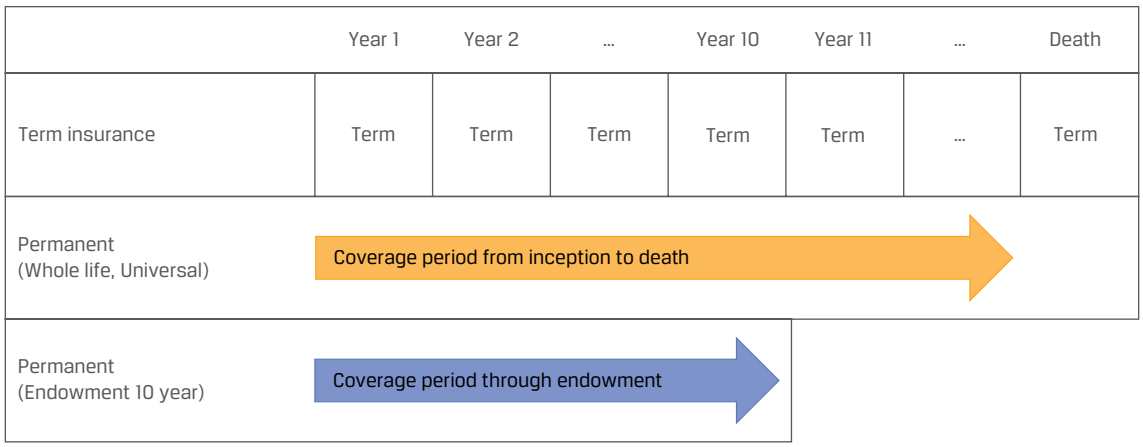
- by withdrawing it upon the policy's maturation,
- by withdrawing it upon termination of the policy, or
- by taking out a loan while keeping the policy active.

However, any withdrawal or unpaid loan balance will decrease the death benefit available to beneficiaries. Multiple types of permanent life insurance exist, with regional variations in popularity, and the two most prevalent are whole life and universal life insurance.

- **Whole life insurance** remains in force for an insured's entire life (hence the name) with periodic premiums typically paid annually. Failure to pay these premiums can lead to policy lapse. The policy's non-cancelability makes it attractive to younger, healthier individuals. Some whole life policies technically mature when the insured reaches 95 or 100 years, offering less-than-lifetime coverage in rare cases but effectively serving as lifetime insurance for most. Such policies can either be participating or non-participating.
  - **Participating life insurance** policies enable policyholders to share in the insurer's profits via potential dividends above the guaranteed value.
  - **Non-participating life insurance** offers fixed benefits that remain unaffected by the insurer's profits or performance.
- **Endowment life insurance** is similar to whole life but has limited coverage periods, such as 10–20 years. At the end of this period, if the insured is still alive, the face value of the policy is paid out to the policy owner.
- **Universal life insurance** offers more flexibility than whole life. Policyholders can adjust their premiums and have broader investment options for the cash value. The policy remains active as long as premiums are paid or the accumulated cash value suffices to cover the insurer's policy expenses.

Exhibit 15 presents a stylized comparison of term and permanent life insurance policies.

Exhibit 15: Stylized Comparison of Term and Permanent Insurance



The **non-forfeiture clause** included in many permanent life insurance policies allow policyholders to access a portion of the benefits even if they miss premium payments, prior to the lapse of the policy. Options under this clause typically include:

- a cash surrender option, paying out the current cash value;
- a reduced paid-up option, using the cash value to buy a single-premium whole life policy; and
- an extended term option, converting the cash value into a term policy, usually with the same face value as the original policy.

Other Uses of Life Insurance

Not all wealth management clients face substantial employment or mortality risks. For instance, a 65-year-old with ample financial resources and no children might experience limited economic loss from a spouse's premature death. Yet, there are various reasons to consider life insurance beyond employment and mortality risk mitigation, such as:

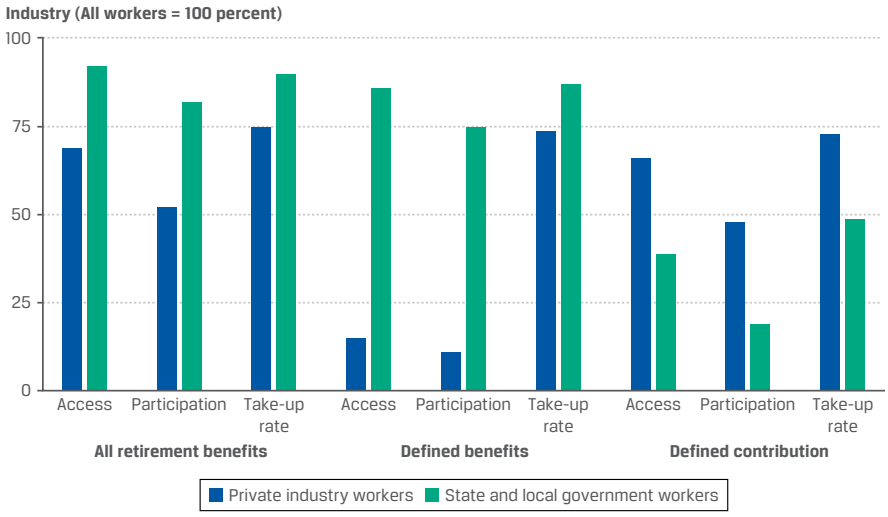
- *Immediate Financial Expenses*: Life insurance can cover death-related costs like funeral and legal expenses, which can be a financial burden and vary regionally.
- *Legacy Goals*: Life insurance can facilitate legacy planning, including charitable gifts and bequests. **Life insurance wrappers** allow investors to place their investment portfolio, including equities, hedge funds, or any other financial asset, into a life insurance policy, and allow them to minimize tax on investment income. They are commonly used in the EU.
- *Liquidity*: Life insurance offers instant liquidity to beneficiaries, bypassing the often time-consuming process to legally settle an estate. This is especially useful when the estate holds illiquid or hard-to-divide assets.
- *Tax-Sheltered Savings*: Cash-value policies invest part of the premium in tax-advantaged accounts. These funds, initially exceeding the low mortality charge, can grow tax-free and later be used for rising insurance costs or cashed out.
- *Estate Planning*: Life insurance payouts can help beneficiaries meet inheritance or estate tax obligations without selling inherited assets. This tool is particularly relevant to small and medium sized businesses and their owners and heirs.

Responses to Longevity Risk

Annuities offer a prevalent way to mitigate longevity risk by pooling it with other annuitants through an insurance company, providing lifelong income for the annuitant and potentially a spouse. Public retirement systems like US Social Security and Japan's National Pension Service essentially serve as public annuities but often fall short of replacing lifetime income for most retirees.

Defined benefit plans, another form of annuitization, are offered by employers, trade unions, and publicly financed systems. These too are often inadequate and are increasingly being supplanted by defined contribution plans. Such plans shift the responsibility for managing longevity risk onto employees, particularly in the private sector (Exhibit 16).

Exhibit 16: Types of Retirement Benefits—Access, Participation, and Take-Up Rates, March 2022 in the United States



*Source:*Bureau of Labor Statistics (2022).

An approach to counter longevity risk is precautionary savings by assuming an extraordinarily long lifespan (e.g., 100 or 110 years) over which to sustain withdrawals in the decumulation phase. Depending on an individual's bequest motives, this approach can be highly inefficient. It may lead to lower living standards and result in a significant amount of unspent capital during retirement.

Volatility Control

In managing longevity risk, sustainable withdrawal rates serve as a benchmark to gauge fund sufficiency. Both the sequence and volatility of portfolio returns affect the ability to meet spending needs. To manage, but not eliminate, longevity risk, controlling volatility is essential, albeit often at the cost of lower expected returns. Asset allocation during the decumulation phase is crucial for controlling volatility:

- *Static Asset Allocation*: The 4% rule for inflation-adjusted withdrawals is well-researched. While there's little difference in sustainability between a 50% and a 75% stock allocation, holding too few stocks can notably shorten the sustainability of withdrawals.
- *Dynamic Asset Allocation*: Instead of a fixed allocation, wealth managers can dynamically adjust it through retirement. Target-date funds shift toward lower equity exposure as retirement approaches. Contrarily, some research suggests that retirees can take on more risk as they age due to a decreasing withdrawal horizon. Bengen (1996) and others point out that increasing equity exposure during retirement can enhance sustainability. Holding more cash or fixed income early on in retirement mitigates the impact of poor early returns, thus reducing longevity risk.

Dynamic Withdrawal Programs

Using dynamic withdrawal rates adds flexibility and reduces longevity risk. Various strategies exist:

A straightforward strategy involves skipping the annual inflation adjustment after years with negative returns. Guyton (2004) and Guyton and Klinger (2006) using US data show this ad hoc strategy increases the sustainable withdrawal rate from a range of 4.0%–4.3% to a range of 5.8%–6.3%, depending on the size of the equity allocation in the portfolio.

Adopting a flexible spending approach helps prevent the crystallization of losses during market downturns. This flexibility reduces the combined impact of market volatility and withdrawals on eroding the portfolio's core value. While such a strategy isn't without its drawbacks, particularly during periods of extended hyperinflation or poor investment performance, it generally leads to more sustainable outcomes compared to rigid withdrawal plans.

Another effective dynamic spending strategy involves relying on coupon and dividend payments for paying ongoing expenses and withdrawals, while only realizing capital gains during years when they are positive. This approach is based on the lower volatility of dividends and coupon payments compared to capital gains. However, it assumes a substantial amount of capital already exists in the retirement portfolio. This straightforward strategy also aligns well with the common investor behavior of mentally earmarking different accounts and funds for specific uses.

A more complicated dynamic withdrawal strategy adjusts withdrawals based on the portfolio's current value by setting upper and lower limits on the withdrawal rate to avoid excessive withdrawals in bull markets or insufficient ones in bear markets. In practical terms, if client situations permit, initiating a withdrawal program with a reduced rate can mitigate the impact of initial poor returns, thereby enhancing the long-term sustainability of the portfolio.

EXAMPLE 3

Dynamic Withdrawal Strategy

Bud Jacobs has a CHF1 million portfolio with a dynamic withdrawal strategy, setting annual withdrawals at 5% of the initial portfolio's value of the beginning of the year, adjusted for a 3% inflation rate thereafter. This strategy requires that withdrawals stay within a range of 4% to 6% of the portfolio's value of the beginning of the same year to sustain its long-term viability.

In the first year, Jacobs withdraws CHF50,000, but an 8% market decline reduces the portfolio to CHF874,000. In the second year, after adjusting for inflation, he withdraws CHF51,500, and a further 5% market drop brings the portfolio down to CHF781,375. In the third year, the original withdrawal of CHF53,045 (CHF50,000 × 1.03^2) represents 6.8% of the then portfolio value, exceeding the allowable 6% upper withdrawal limit. The bounded withdrawal strategy limits the withdrawal to CHF46,833 (CHF781,375 × 6%) to remain within the 6% upper limit. A subsequent 25% market increase later in the same year allows the resumption of the originally planned withdrawals in the fourth year at CHF54,636. In the sixth year, the planned annual withdrawal of CHF57,964 is increased to CHF59,710, as it falls below the 4% lower boundary.

Year	Beginning Portfolio Value	Planned Withdrawal	Planned Withdrawal Rate	Bounded Withdrawal Rate	Bounded Withdrawal	Return	Ending Portfolio Value
1	1,000,000	50,000	5.0%			-8.0%	874,000
2	874,000	51,500	5.9%			-5.0%	781,375
3	781,375	53,045	6.8%	6.0%	46,883	25.0%	918,116
4	918,116	54,636	6.0%			30.0%	1,122,523

Year	Beginning Portfolio Value	Planned Withdrawal	Planned Withdrawal Rate	Bounded Withdrawal Rate	Bounded Withdrawal	Return	Ending Portfolio Value
5	1,122,523	56,275	5.0%			40.0%	1,492,747
6	1,492,747	57,964	3.9%	4.0%	59,710	5.0%	1,504,689

This strategy is flexible in adjusting withdrawals in response to market changes and enhances the portfolio's ability to support withdrawals through market volatility.

Laddered Bonds

Incorporating flexibility into retirement withdrawals can be difficult for retirees who place a very high value on the predictability of their withdrawals. Retirees who prioritize withdrawal predictability and have set withdrawal requirements, such as US Required Minimum Distributions, may opt for a laddered bond strategy.

A bond ladder consists of varying non-callable fixed-income securities that mature at intervals matching one's retirement spending needs. While this immunization approach can manage interest rate risk and it mimics fixed annuity payments, it doesn't mitigate longevity risk. To address this, a 65-year-old retiree can blend a 20-year bond ladder with a deferred annuity that starts payouts after age 85, ensuring financial coverage for life.

EXAMPLE 4

Bond Ladder

Sophia Poulos is a retiree living in Greece with spending needs over the next five years listed in the table below. It includes some larger spending on health and other needs later in life. Her wealth manager, Helen Stonopolos, CFA, wishes to recommend a bond ladder to immunize her retirement spending using five different bonds of varying maturities and coupon payments. Stonopolos can combine select bond amounts and maturities so that the sum of the face values and coupon payments at each point in time equal Poulos's spending need.

Year	1	2	3	4	5
Spending need (in EUR)	100,000	107,000	113,000	123,000	150,000
Bond #1 cash flows	80,000				
Bond #2 cash flows	3,000	90,000			
Bond #3 cash flows	4,000	4,000	100,000		
Bond #4 cash flows	5,000	5,000	5,000	115,000	
Bond #5 cash flows	8,000	8,000	8,000	8,000	150,000
Total bond cash flow	100,000	107,000	113,000	123,000	150,000

A more straightforward method would be to use zero-coupon bonds, if available, particularly when the maturity spectrum of available zero-coupon bonds tilts toward the shorter end of the spectrum.

Bucket Planning and Behavioral Finance

Richard Thaler's seminal work on mental accounting provides a different approach to managing longevity risk in retirement planning by categorizing investments into mental buckets according to specific objectives, such as "pay the rent" or "spoil the grandkids," or based on when the cash will be needed (e.g., income for Years 1–5, Years 6–10, etc.). These mental buckets aim to meet financial goals over different time frames. This approach benefits from investors' inherent mental accounting tendencies, thus facilitating easier tracking of goal funding. It essentially serves as a rudimentary form of goals-based planning.

Practitioners should consider several factors before implementing such a strategy:

- As clients make withdrawals, their equity exposure is likely to rise. Initially, portfolios can align with a client's risk tolerance through a time-segmented strategy, such as allocating 60% to fixed income in buckets 1, 2, and 3, and 60% to equities in buckets 3, 4, and 5. However, by the end of the first time horizon, the fixed income allocation will have decreased significantly, misaligning the portfolio with the client's risk profile. Maintaining a consistent risk level necessitates ongoing asset rebalancing, which incurs tax and transaction costs—factors often overlooked in evaluating bucketing strategies.
- The heightened equity exposure could unsettle behavioral investors, even if it's optimal for rational investors. This issue can be mitigated by reminding investors that each bucket serves a specific financial goal, and the overall portfolio still aligns with their current objectives.
- Using multiple buckets may lead to redundant investment positions. For instance, buckets 1, 2, and 3 could all hold the same fixed-income mutual fund, while buckets 4, 5, and 6 might invest in the same equity fund. If these investments are in individual accounts, this redundancy will incur additional transaction costs. Conversely, managing such allocations within a single account could introduce complexity and demand considerable time for reporting and administration.

Annuities

To manage longevity risk, individuals can transfer this risk to a financial institution via an annuity that provides a series of payments made at equal intervals over a specified period. Insurance companies excel at diversifying longevity risk across a large pool of individuals and are more adept at life-span prediction than individuals, similar to pension funds.

While life insurance protects against premature death, immediate life annuities safeguard against outliving one's financial resources. The four primary parties to an annuity contract are:

- *Insurer*: Generally, the insurer is an insurance company that sells the annuity.
- *Annuitant*: The annuitant is the beneficiary of the annuity payments.
- *Contract Owner*: Generally, the contract owner is the annuitant; the contract owner buys the annuity. In certain cases, a company may purchase an annuity for a retiring employee who then becomes the annuitant.
- *Beneficiary*: While basic fixed annuities often lack a beneficiary, some annuities include life insurance elements that pay out to a beneficiary upon the annuitant's death.

ANNUITIES—A HISTORY

Annuities have existed in a variety of forms for thousands of years. The Romans sold a financial instrument called an "annua" that returned a fixed yearly payment, either for life or for a specified period, in return for a lump sum payment.

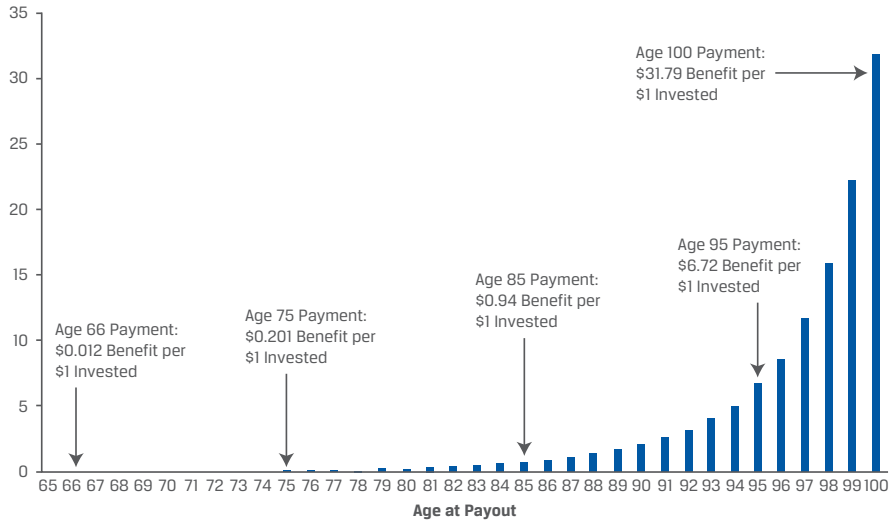
More recently, tontines (which were structured as both life insurance and annuities) proliferated in the United States. Tontine investors purchased shares in a common investment pool and received a regular dividend. The shares of fellow investors who died were redistributed to the surviving investors. Tontines were banned in the United States in 1906, however, after a series of scandals and the presumably distasteful nature of the arrangement. There has been renewed interest in tontines in recent years, and firms in Canada and Australia have started to offer tontines that satisfactorily address the problems associated with the product in the past (Milevsky 2015).

Today, the most straightforward way to transfer longevity risk is through a traditional immediate fixed annuity, which guarantees annual income for an upfront investment. Insurance companies provide annuity rates that frequently appear more favorable than AAA-rated fixed-income assets maturing around an annuitant's life expectancy. This attractiveness stems from the annuity payments including both a return of the original principal and mortality credits: When some annuitants die, the payments earmarked for them are redistributed among the remaining annuitants in the annuity pool.

Despite the purchase costs, annuities generally yield a more favorable financial result than a self-managed approach. In essence, annuitants who outlive their life expectancy gain a financial advantage over those using a self-insured strategy, such as building a riskless bond ladder. The spending improvement, denoted as Q, for any given year is calculated as $(1 - p)/p$, where p is the survival probability.

Exhibit 17 shows that while Q is modest in the initial years of an annuity, it significantly increases in the later years, presenting a considerable range of spending improvements.

Exhibit 17: Spending Improvement of a Zero-Coupon Annuity Payment for a 65-Year-Old Annuitant



*Source:*Jason Scott (2008), "The Longevity Annuity: An Annuity for Everyone?" *Financial Analysts Journal* 64 (2008): 40–48.

The terminology here follows US insurance industry standard nomenclature. Similar annuity products exist in other countries, and their names and features may be different, but the mechanics are comparable.

Fixed Annuities

Two payment dimensions distinguish annuities: fixed versus variable payments and deferred versus immediate payments.

- A **Fixed annuity** offers a set percentage of the initial investment as annual income, or **income yield**. An investor exchanges a lump sum, for example, USD100,000, for an annual income stream, such as USD6,000, either for a lifetime or a specified term. The income yield, 6% in this instance, is influenced by both current interest rates and the annuitant's age. While the income yield is calculated annually, payments are usually disbursed monthly and can also be made quarterly or yearly.
- A **single-premium immediate annuity (SPIA)**, or *payout annuity*, allow an annuitant to exchange an initial lump sum investment for a stream of annual income either over a lifetime or a predetermined term. There is one premium payment, and payments from the annuity start immediately.
- **Lifetime annuity** gives annuitants the option to receive payments for the rest of their lives, which directly mitigates longevity risk.
- **Period-certain annuities**, which offer payments for a fixed number of periods and do not account for the annuitant's lifespan, thus failing to manage longevity risk.
- **Life annuity with period certain** guarantee annuitants a minimum number of payments (e.g., a minimum of 10 years) even if the annuitant dies early, with the residual going to a designated beneficiary.
- **Life annuity with return-of-premium**, when annuitant dies before recouping the initial investment, payments equaling the initial principal (minus fees and adjustments) are made to a beneficiary.

- **Joint life annuity**, or survivor option, is a joint-life annuity where payments continue over the lifespan of two annuitants, usually spouses. The benefit paid to the survivor can be as much as 100% of the primary benefit or a smaller amount, such as 50% or 75% of the full benefit.
- **Inflation-adjusted payments** allow annuitants to counter inflation erosion by choosing payments that adjust for inflation or grow by a fixed percentage, although the latter provides a weaker protection against inflation.

Exhibit 18: Examples of Payment Streams for Different Types of Fixed Annuities

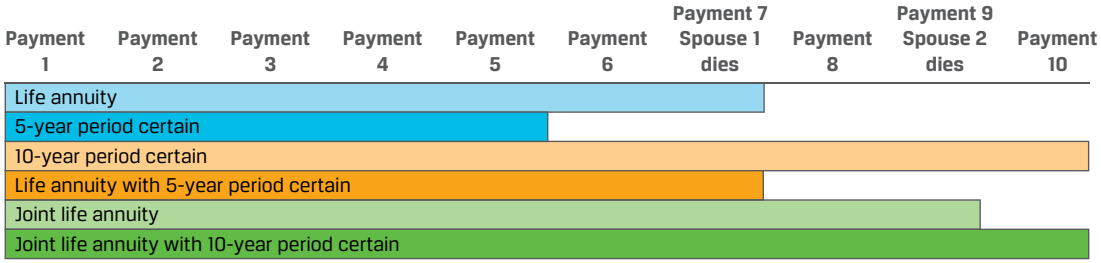


Exhibit 18 presents examples of payment streams for various fixed annuity types. Features that minimize the annuitant's risk or increase payouts over time usually result in a lower income yield. Conversely, it requires a higher upfront lump sum payment for the same income. For investors focused on maximizing lifetime income and minimizing longevity risk, omitting riders with residual benefits like period-certain or return-of-premium is an advisable option. These riders could be beneficial for those balancing lifetime income needs with leaving an inheritance. Most immediate fixed annuities are irreversible and illiquid, as they can't be sold or redeemed.

Each annuitant's payment consists of principal, interest, and mortality credits. The income yield, therefore, fluctuates based on factors like age, gender, and health metrics, in addition to the selected features.

Exhibit 19 outlines payout rates for a life annuity with no residual benefits and a life annuity with a 10-year certain payment. Quotes are included for three different types of annuitants: male, female, and joint (a couple). In the case of a joint annuity, the couple is assumed to be of the same age, and the survivor receives 100% of the primary benefit.

Exhibit 19: An Example of Annual Payouts as a Percentage of Initial Premium

	Life only			Life with 10-year period certain		
Age	**Male**	**Female**	**Joint**	**Male**	**Female**	**Joint**
60	6.18%	5.99%	5.40%	6.09%	5.92%	5.40%
65	6.75	6.45	5.75	6.59	6.33	5.74
70	7.54	7.12	6.28	7.36	6.95	6.28
75	8.95	8.27	7.06	8.34	7.81	7.11
80	10.89	9.96	8.21	9.39	8.81	8.18

	Life only			Life with 10-year period certain		
Age	**Male**	**Female**	**Joint**	**Male**	**Female**	**Joint**
85	14.42	12.98	10.37	10.20	9.84	9.29
90	19.24	17.11	14.26	10.78	10.61	10.31

*Source:*Immediate Annuities.com,www.immediateannuities.com (retrieved August 2023).

A **deferred fixed annuity** provides an annuity payout at a future date, not immediately. For example, a 30-year-old can secure a lifetime income stream beginning at age 65 at a lower cost than a 55-year-old aiming for the same start age. During the deferral period 10 years or 35 years, the investment earns a return. At the end of the deferral period, the annuitant has two options:

1. *annuitize the investment*, typically converting the deferred annuity into an immediate fixed annuity, or
2. *cash out the economic value of the accumulated investment*, minus any surrender charges, effectively terminating the annuity contract.

This option at the end of the deferral period provides a measure of liquidity for deferred annuities, unlike immediate annuities.

An **advanced-life deferred annuity** (ALDA) is a type of deferred annuity purchased later in life, usually with a lump sum. For instance, a 65-year-old could buy an ALDA that starts monthly payments at age 85. This is more cost-effective than an immediate annuity because payments are deferred for the first 20 years and accumulate value and benefit from mortality credits as some annuitants may die before payments start. Due to its targeted approach to mitigating longevity risk, this type of annuity is often also called longevity insurance. Deferring payments offers various advantages.

1. Deferring annuity payments substantially increases available retirement spending for each annuitized dollar. Because this approach focuses the benefits of annuitization toward the end of life, when mortality risk is highest, it is a more cost-effective approach.
2. It is economically efficient by transferring specific risks to the insurance company, which is better equipped to manage them. In an SPIA, the early time periods carry minimal longevity risk and offer limited added value from the insurer. The true value comes from the insurer's ability to diversify longevity risk at later life stages, where the risk of outliving assets is greatest.
3. The deferral period establishes a fixed and known investment horizon, which enables wealth managers to create tailored spending and investment strategies for a specific timeframe. For instance, a zero-coupon bond ladder could effectively cover living expenses until the deferred annuity kicks in, reducing the portfolio's withdrawal needs to a set period, such as 20 years, instead of an indefinitely long and unpredictable timeframe.

The discussion has centered on single-premium annuities with one-time, single, and upfront investment. However, fixed annuities can also be incrementally purchased over fixed time intervals, known as **accumulation periods**. During the accumulation periods, investors purchase smaller amounts of lifetime or period-certain income every month. These annuities accrue interest or investment returns during the accumulation

period, leading up to the payout phase. Effectively, this approach creates a series of deferred annuities with progressively shorter deferral periods. Benefits of accumulation periods include:

- They provide an alternative solution for investors who do not have the immediate capital to purchase an SPIA and offer a phased long-term investment approach that merges saving and investing.
- SPIA payouts are influenced by the interest rates at the time of purchase, which may be either advantageous or not. Longer accumulation periods mitigate this risk by diversifying interest rate exposure over time.
- Accumulation periods can counteract behavioral biases commonly seen in investment and annuity decisions and act as an automated investment program similar to pension deferrals.
- Accumulation periods offer conversion options similar to deferred annuities that provide a degree of liquidity.

Exhibit 20: Examples of Annuity Payouts

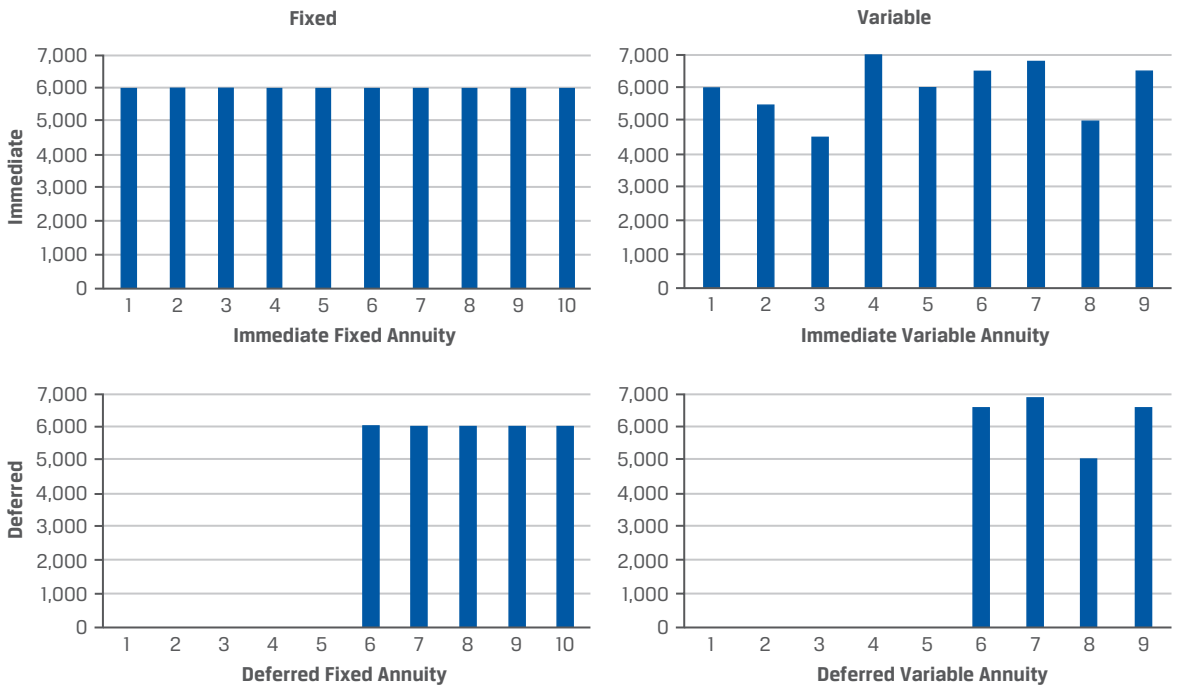


Exhibit 20 outlines hypothetical payout scenarios for key annuity types, categorized by payout start time (immediate or deferred) and payout amount certainty (fixed or variable). Variable annuities are discussed in the following section.

Variable Annuities

Immediate variable annuities are similar to an SPIA: Individuals purchase a lifetime income stream for a lump sum. The amount of the payments to the annuitant and beneficiaries fluctuates based on the performance of an underlying investment, may that be a mutual fund, exchange-traded fund (ETF), or Undertakings for the Collective Investment in Transferable Securities (UCITS) account.

Annuitants can set an assumed investment return (AIR), typically between 3.5% and 5%, which not only dictates the initial payment but also future payment adjustments according to actual investment returns relative to the AIR. Lower AIRs offer smaller initial payments but reduce the chance of future payment cuts.

Annuitants can select from a range of potential investment options, usually featuring a predetermined target risk allocation managed by multiple investment managers. These options often replicate popular mutual fund strategies. However, compared to traditional investment vehicles, such as mutual funds, ETFs, or UCITS, these annuities may have higher costs and limit their investment choices.

Deferred variable annuities, on the other hand, start payments after a period during which the annuitant makes contributions to the investment account. The annuity may include features that are more or less suitable for different clients, depending on their investment goals and risk tolerance. Some considerations include:

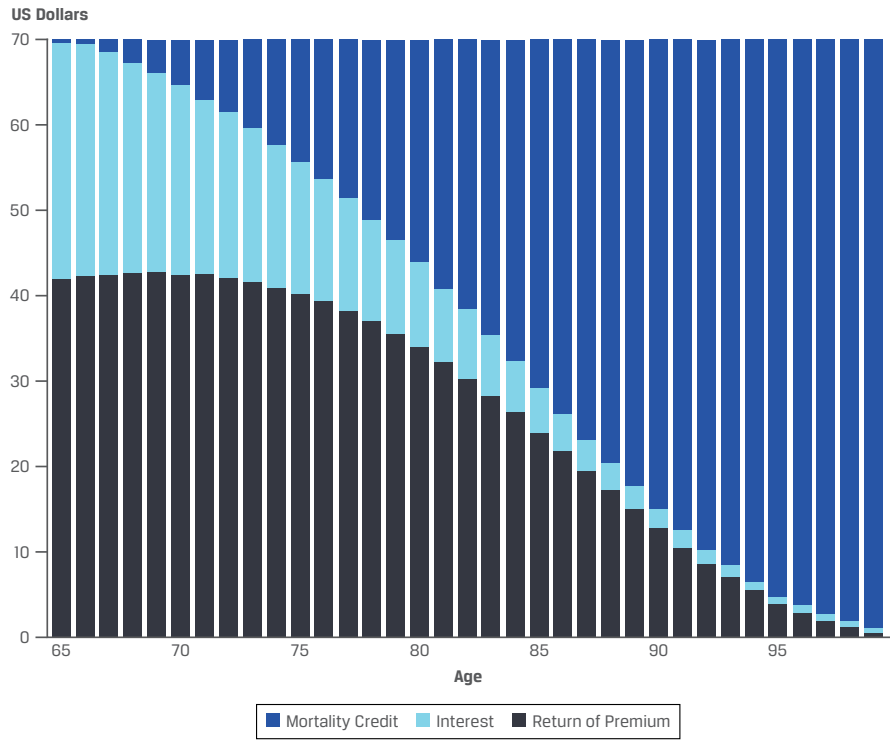
- *Volatility*: Variable annuities link their payment amounts to investment performance of an underlying investment, which makes them more similar to a managed investment product than longevity insurance. To mitigate the risks of market downturns, and associated lower payments, an income floor is often added to immediate variable annuities at an extra cost. Fixed annuities are better suited for retirees seeking stable payouts, whereas more risk-tolerant retirees may opt for variable annuities tied to a higher-risk asset portfolio for potentially greater yearly payouts.
- *Flexibility*: Immediate fixed annuities offer guaranteed lifetime income at the cost of irrevocability. Variable annuities, however, offer more flexibility by allowing withdrawals from the underlying subaccount, usually subject to certain limitations and penalties.
- *Return-of-Premium*: Deferred variable annuities may feature a return-of-premium rider, ensuring the beneficiary receives the full premium if the annuitant dies during the deferral or payout period. This rider is more valuable in variable annuities due to higher asset volatility, often resulting in reduced payouts.
- *Guaranteed Minimum Withdrawal Benefit* (GMWB): Unlike fixed annuities, deferred variable annuities don't guarantee a specific lifetime income. However, annuitants can purchase a GMWB rider, typically guaranteeing a fixed percentage (e.g., 4%) of the initial investment for life. The insurance company is obligated to continue payments even if the investment depletes.
- *Fixed Annuity Option*: Some deferred annuity contracts allow conversion to an immediate payout annuity at the end of the deferral period. However, the final investment value and thus the payout amount remain uncertain. Consequently, few investors choose to "annuitize" their deferred variable annuities this way.

Risk-reducing features or payout-boosting options in an annuity generally result in a lower income yield, as they impose additional risks or liabilities on the insurance company. Variable annuities typically come with higher fees compared to fixed annuities.

Evaluating the Appropriateness of Annuities

Mortality credits are crucial for assessing the suitability of an annuity for a specific client and primarily benefit survivors. Exhibit 21 uses the Society of Actuaries' 2012 Individual Annuity Reserve Table and a 3% interest rate to exemplify mortality credits for US males. In this scenario, a USD1,000 initial investment yields an annual income of USD70 for life. This annual benefit comprises three elements: interest accrued on the remaining initial investment, return of premium, and mortality credits.

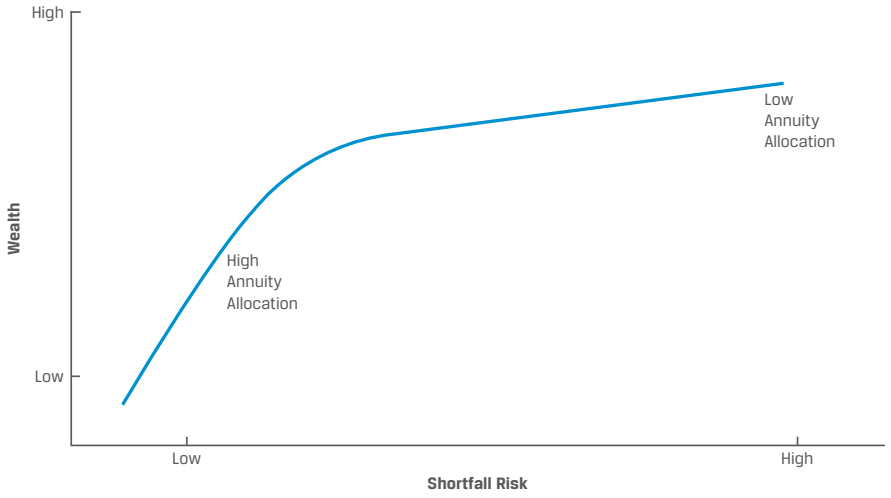
Exhibit 21: Stylized Example of Annual Annuity Benefit by Age



An individual who self-insures longevity risk would receive only (approximately) the interest and return-of-premium portions of Exhibit 21, which can be distributed differently over time. However, by purchasing an annuity, an individual gains mortality credits that enhance income for surviving annuitants. The trade-off is the cost of insurance, which inherently cannot have a positive expected value without causing financial loss to the insurance company.

Thus, buying an annuity provides more income certainty but may result in lower wealth at death and potentially lower lifetime income, depending on the annuity's cost. This balance between income security and ending wealth can be modeled through a "retirement income efficient frontier." This frontier aids in the annuitization decision, weighing an individual's preference for wealth maximization against the fear of depleting funds, as illustrated in Exhibit 22.

Exhibit 22: Retirement Income Efficient Frontier



*Source:*Chen and Milevsky (2003).

Certain factors can generally be expected to affect a retiree's demand for annuities, either positively or negatively. Several factors generally increase a retiree's interest in annuities:

- Longer life expectancy
- Stronger preference for guaranteed lifetime income
- Lower emphasis on bequeathing assets to heirs
- Higher risk aversion in investing
- Reduced income from other guaranteed sources like public or private pensions

The global shift from defined benefit to defined contribution plans has increased the demand for annuities. Understanding how annuities function and what type of investor benefits most from annuities becomes crucial. Rising demand may improve investor outcomes as insurance companies gain economies of scale and as issues of adverse selection, such as those with longer life expectancies opting for annuities, diminish.

Behavioral Barriers to Annuitization

Despite the logical appeal and simplicity of using immediate fixed annuities or deferred fixed annuities to provide a safety net of lifetime income to meet our basic living needs, few people chose to annuitize. Individuals may avoid discussing and making decisions about their mortality because it creates emotional discomfort, choosing instead to bequeath unused assets to their heirs. The perception that outliving the actuarial life expectancy in an annuity contract equates to "winning" can make annuities seem like a gamble, but the true purpose is risk mitigation.

Just as homeowners, auto, and life insurance policies protect against catastrophic financial events, annuities safeguard against the risk of outliving one's assets. Fixed annuities directly address this longevity risk more effectively than variable annuities. ALDAs target this risk even more specifically than immediate annuities and help overcome behavioral biases. By delaying the start of annuity payments, ALDAs not only lower the cost of annuitization but also reduce the psychological barrier associated with insuring against outliving one's resources.

Responses to Property Risk: The Role of Liability Insurance

Property insurance helps individuals mitigate risks associated with their assets, primarily home or residence and the automobile. **Liability risk** refers to the potential legal obligation one may have for causing bodily harm or property damage to others, either through direct actions or failure to act when legally required.

To manage liability risk, individuals often obtain liability insurance. To adequately cover their liability risks, individuals can supplement their home and auto insurance with a **personal umbrella liability policy**. Such an insurance offers specified limits and pays claims when the liability limits of the home or auto insurance are reached, thereby providing additional coverage. For instance, if someone has an auto policy with a USD1 million limit and an umbrella policy with a USD3 million limit, and they cause an accident resulting in UDS 1.5 million in damages, the auto policy would cover the first USD1 million, and the umbrella policy would handle the remaining USD500,000. Umbrella policies are generally relatively inexpensive and cost-effective.

HNWIs and UHNWIs often face heightened legal risks due to their public visibility and the likelihood of being targeted in lawsuits. Personal umbrella insurance coverage is essential for these individuals. In the United States, a standard recommendation is a personal umbrella insurance coverage of around USD20 million to shield against frivolous and serious legal claims. This amount generally surpasses most court judgments, providing robust asset protection and minimizing the need for out-of-pocket expenses. This level of coverage is more than sufficient for most legal challenges.

When considering liability insurance, the focus should be on safeguarding one's financial assets. Some jurisdictions exempt certain assets like primary residences or retirement funds from being seized if liability exceeds the existing insurance coverage. Therefore, one should evaluate the worst-case scenario for both personal financial risk and the financial consequences that an injured party could face.

Private Wealth Risk Management in Practice

This section presents a case study that outlines an individual's risk exposures, evaluates the severity of those risks, and develops strategies, including insurance options, to mitigate them.

Jacques and Marion Perrier are 40 years old and 38 years old, respectively, with two children—Henri, age 8, and Émilie, age 6. Jacques is a manager of technical services for a large corporation and earns EUR100,000 pre-tax per year. Marion works part-time as a nurse, earning EUR20,000 after tax per year but plans to return to full-time work in 10 years, when Émilie turns 16. The tax rate applicable to employment income is flat 30%. Marion expects that, with adjusted market conditions and after 10 years of inflation, she will earn EUR60,000 per year after tax (approximately EUR85,700 before tax, assuming that tax rate remains the same: 30% flat income tax) as a full-time nurse at that time. Jacques and Marion are in excellent health and maintain a lifestyle that is well within their income.

The family lives in a comfortable condominium that they bought for EUR250,000 five years ago and that is currently valued at EUR300,000. They owe EUR190,000 on a mortgage that still has 25 years to maturity. Although both Jacques and Marion take public transportation to work, they have a 10-year-old automobile in excellent condition with relatively few kilometers of use. Jacques and Marion intend to live in this home at least until Jacques's planned retirement at age 60. At that time, they will decide whether to remain there or move to the small town nearby where Jacques grew up.

Four years ago, when his parents died, Jacques inherited their moderately sized but attractive home where he grew up. It was worth EUR150,000 at the time and has increased in value to EUR165,000 (a 10% increase during this period). The family tried using it as a weekend home but found it impractical due to their children's activities.

For the last two years, they have leased the inherited house to a childless middle-aged couple. The property carries no debt, and the rental income covers all taxes and expenses, generating surplus cash that the couple allocates for family vacations.

Both of Jacques's parents died at age 70. Marion's father died at age 80. Her mother, Françoise, is in good health at age 72, and women in her family have generally lived to very old ages. Françoise has a pension but does not have much in assets. They have no wills, testaments, or other estate planning provisions.

Current Insurance Plan

Life insurance: Jacques bought a whole life insurance policy with a death benefit of EUR200,000 when Henri was born. Jacques is the insured, and his estate is the beneficiary. His employer also provides a EUR50,000 term life insurance policy that names Marion as the beneficiary. There is no life insurance on Marion.

This data is summarized in the table below:

Item	Details
Jacques	
Age	40
Annual earnings (pre-tax)	EUR100,000
Whole life insurance policy	EUR200,000
Term life insurance policy	EUR50,000
Marion	
Age	38
Annual earnings (after-tax)	EUR20,000
Life insurance	None
Children	Henri (age 8) Émilie (age 6)
Condominium	
Current value	EUR300,000
Remaining mortgage	EUR190,000 (25 years left)
Building exterior insurance	Fully insured
Content insurance	EUR20,000
Rental home	
Current value	EUR165,000
Mortgage	None
Insurance coverage	EUR100,000

First in Example 5, we focus on estimating the employment and mortality risk exposure for Jacques and Marion using the human life method.

EXAMPLE 5

Employment and Mortality Risk Exposure for Jacques and Marion: The Human Life Method

The human life value method aligns with the human capital concept and aims to estimate the net financial contributions Jacques would make to the family if he were to live through his expected earning years. This calculation involves making estimations,

$$\text{Human Life Value} = \sum_{j=1}^{n} \frac{\frac{\text{Income}(1 - t_{emp}) + \text{Benefits} - \text{Expense}}{(1 - t_{ins})}(1 + g)^j}{(1 + r)^{j-1}},$$

where:

- *Income* is pre-tax income that Jacques receives from employment, or EUR100,000.
- t_{emp} is the tax rate applicable to employment income, or 30%.
- EUR100,000 × (1 – 30%) = EUR70,000 after-tax income.
- *Benefits* are non-taxable employee benefits that the family will no longer receive, such as employer contributions to retirement plans, which we assume to be EUR15,000.
- Total after-tax income = EUR70,000 + EUR15,000 = EUR85,000.
- *Expenses* is the family expense attributable to Jacques that will not exist after his death, such as his transportation, travel, clothing, food, entertainment, and insurance premiums. We assume those expenses to total EUR20,000.
- After-Tax Income After Expenses = EUR85,000 – EUR20,000 = EUR65,000.
- To estimate the pre-tax income needed to replace Jacques's after-tax income, divide the After-Tax Income After Expenses by $(1 - t_{ins})$, where t_{ins} is the tax rate on life insurance proceeds, which may differ from Jacques's employment income tax rate (t_{emp}). If life insurance proceeds are tax-free in some jurisdictions, then $t_{ins} = 0$. Additionally, lower incomes may have lower marginal tax rates. In this example, we assume a 20% tax rate.
- Pre-Tax Income Needed = EUR65,000/$(1 - t_{ins})$ = EUR65,000/(1 – 0.20) = EUR81,250.
- *g* is the annual growth rate (including inflation and career advancement) of after-tax income, assumed to be 3%.
- *r* is the discount rate for future cash flows, 5%.
- *n* is the mortality-adjusted number of years Jacques can expect to earn income.

Assuming Jacques's family would need the lost income at the start of each year, the human life value can be estimated using the present value of a growing annuity due. The adjusted rate *i* is calculated as $[(1 + r)/(1 + g)] - 1$, or (1.05/1.03) – 1 = 1.94%. Thus,

- set the calculator for beginning-of-period payments;
- *n* = 20 (the number of years until retirement),

PMT = EUR81,250, and *i* = 1.94%; and

- the present value = EUR1,362,203.

Typically, human life value is calculated using spreadsheets or specialized software for more flexible modeling, allowing for varying growth rates over time. Using this approach, the method suggests Jacques should have EUR1,362,203 in life insurance. Since he already has EUR250,000, he needs an additional EUR1,112,203, likely rounded to EUR1.1 million, according to this method.

Calculating Risk Exposures

In Example 6, we assess the employment and mortality risk exposure for Jacques and Marion using the needs analysis method.

EXAMPLE 6

Employment and Mortality Risk Exposure for Jacques and Marion: The Needs Analysis Method

The needs analysis method estimates the financial needs of the family rather than replacing human capital. Needs analysis typically includes the following steps.

1. Estimate the amount of *cash needed* upon the death of the insured person, including final expenses (funeral and burial) as well as any taxes that may be payable. It is also common to pay off all debt (including mortgages) and to fully fund future education costs. An emergency fund should also be considered.
2. Estimate the *capital needed* to fund family living expenses by discounting estimated living expenses over the relevant time frames (i.e., calculating the present value of future cash flow needs), typically including:
   - Surviving spouse's living expense needs, assumed here to continue for 52 years until Marion is 90 years old. Let's assume that these are EUR60,000 per year. Note that when the mortgage and other debts are paid off, living expenses are lower.
   - Children's living expense needs, assumed here to continue until they are 22 years old. For each child, these expenses equal EUR10,000 for a total of EUR20,000 per year for both.
   - Additional expenses during a transition period after Jacques's death, perhaps covering two years, recognizing that there may be some contractual obligations, such as a car lease, that may not terminate upon a person's death.
3. Consider Marion's future income (earnings) as a potential offset to these needs. Marion may prefer not to go back to work full time as soon as planned, however, because of the extra responsibilities of being a single parent. She may even choose to resign from her part-time job. We assume neither of these scenarios, however. Hence, the living expenses are approximately EUR60,000.
4. Calculate total needs as the sum of cash needs and capital needs.
5. Reduce total needs by the total capital available, which may include cash/savings, retirement benefits, life insurance, rental property, and other assets.

The life insurance needed equals the total financial needs computed above minus the total available capital.

Financial needs	EUR
Cash needs	
Final expenses	10,000
Taxes payable	5,000
Mortgage retirement	190,000
Other debt retirement	10,000

Financial needs	EUR
Education fund	200,000
Emergency fund	30,000
Total cash needs	445,000
Capital needs (Annuity due: g = 3%, r = 5%)	
Marion's living expenses (60,000/year for 52 years)	1,991,941
Children's living expenses:	
Henri (10,000/year for 14 years)	123,934
Émilie (10,000/year for 16 years)	139,071
Transition period needs (10,000/year for 2 years)	19,810
Minus Marion's income:	
Until Émilie is 16 (20,000/year for 10 years)	–183,713
Age 48–60 (60,000/year for 12 years)	–398,565[a]
Total capital needs	1,692,478
Total financial needs	2,137,478
Capital available	
Cash and savings	30,000
Vested retirement accounts—present value	200,000
Life insurance	250,000
Rental property	165,000
Total capital available	645,000
Life insurance need (Total financial needs – Total capital available)	1,492,478

[a] *Calculated in two steps:*
1. Compute the amount needed in 10 years, when Marion will begin earning EUR60,000 per year. Assuming 12 years of earnings from age 48 to age 60, a 3% annual growth in earnings, and a 5% discount rate (1.94% adjusted discount rate), a present value of an annuity due calculation shows that EUR649,220 will be needed in 10 years.
2. Discount the EUR649,220 back to the present—10 years at the unadjusted discount rate of 5%—for a total of EUR398,565. The discount rate is not adjusted during this period because there are no payments to which a growth rate would be applied. We simply discount a future value to the present.

While this method suggests EUR1.5 million in coverage—higher than the EUR1.11 million suggested by the human life value method—the final amount can vary depending on the family's specific circumstances. One could consider both amounts as a guideline range and opt for the higher, lower, or an average of both values. Insurance premium rates could also influence the chosen coverage amount, as rates may drop at specific "breakpoints," such as EUR250,000; EUR500,000; and EUR1 million.

Determining life insurance needs isn't an exact science. In Jacques's case, both methods suggest he should acquire additional coverage between EUR1 million and EUR1.5 million. The specific amount within this range will depend on Jacques' and Marion's risk tolerance.

Assessing Life Insurance Needs

While an annually renewable term policy is cheaper, a 20-year level term policy could be considered. After 20 years, Jacques will be nearing retirement, and his children will be adults. At this stage, both human life value and needs analysis methods may suggest reduced or no further need for additional insurance.

An alternative, cost-effective strategy is to buy four staggered term policies of 5, 10, 15, and 20 years, which in the aggregate gradually reduces the amount of coverage as the value of Jacques's human capital decreases. Whole life policies like Jacques's are costly. Because of the pricing, cash build-up and possible surrender charges at this point in the policy's life make it unwise to replace the policy with term coverage now. If retained, its cash value should be part of a conservative retirement asset allocation.

Marion should be the primary beneficiary because she would be responsible for Henri and Émilie. Alternatively, trusts or third-party guardians could be named if minors or tax implications are a concern. The old policy should be changed to include these beneficiary designations as well. Note that making death benefits payable to the estate, as is the case currently on the whole life policy, can slow payments significantly due to probate and may subject benefits to greater taxation.

Marion should also have life insurance, even if her current income is low. Her death would result in lost future income and added expenses. Premiums would be low given her age and health, although the exact coverage amount is hard to calculate because the kids will likely be independent when she returns to full-time work. Nonetheless, her coverage would be substantially less than Jacques's.

QUESTION SET

1. A client's spouse has chosen to work part-time instead of full-time to be able to care for their children. Will the optimal amount of life insurance for the spouse be affected by the calculation method used?

   A. No.

   B. Yes, it will be higher if the human life method is used.

   C. Yes, it will be higher if the needs analysis method is used.

   Solution:

   C is correct. The human life method is based on the expected value of the insured's earnings, which in this case is low because of the decision to focus on childcare. The needs analysis method focuses on the liability associated with the needs of the family. In addition to losing the spouse's income, the client would likely incur additional costs related to childcare, such as a nanny or other childcare services.

2. A client is a 75-year-old widow with adult children. Which of the following would be the most appropriate way to estimate her life insurance needs?

   A. The human life method

   B. The needs analysis method

   C. The expected value of estate taxes

   Solution:

   C is correct. Life insurance can provide funds that help heirs pay inheritance or estate taxes. The life insurance payout provides immediate liquidity, enabling beneficiaries to pay off inheritance or estate taxes without having to sell inherited assets. The client does not have future income or a spouse that would be subject to additional liabilities, negating the human life and needs analysis methods. However, estate planning is another use of life insurance.

3. Which of the following would be most appropriate for an investor who places a very high value on the predictability of withdrawals?

   A. A bond ladder

   B. A target-date fund

   C. A dynamic withdrawal program

   Solution:

   Option A is the correct choice. Incorporating flexibility into retirement withdrawals can be difficult for retirees who place a very high value on the predictability of their withdrawals. Clients with inflexible withdrawal needs, such as mandated withdrawals from tax-sheltered retirement accounts (e.g., required minimum distributions in the United States), and an aversion to annuities (see below) can develop a laddered bond investment strategy.

4. Which of the following annuity types would most likely result in the highest annual payout per unit of initial premium?

   A. A life annuity

   B. A joint life annuity

   C. A life annuity with period certain

   Solution:

   Option A is correct. A life annuity pays out only over the life of a single recipient. Joint annuities and life annuities with period certain must pay a second annuitant after the death of the first, which results in a lower annual payout per unit of initial premium. This is also illustrated in Exhibit 19.

5. An advantage of advanced-life deferred annuities is that they:

   A. pay beneficiaries in the event of an early death.

   B. transfer longevity risk to the insurance company.

   C. allow wealth planners to devise strategies appropriate for indefinite time horizons.

   Solution:

   Option B is correct. Deferring the initiation of annuity payments has several advantages. First, it significantly reduces the cost of annuitization. It is economically efficient in that it transfers to an insurance company the type of risk that it is best suited to manage. Finally, it helps adjust an individual's investment horizon, allowing wealth managers to devise a spending and investment strategy appropriate for a fixed number of years (such as a zero-coupon bond ladder) after which time the longevity annuity will provide lifetime income and immunize against longevity risk.

6. Compared to a fixed annuity, a variable annuity is *most* appropriate for an investor who:

   A. expects to live longer than average.

   B. is willing to adjust their spending during retirement.

   C. seeks a high level of assurance with respect to benefit payouts.

   Solution:

   B is the correct answer. Retirees who are risk tolerant or willing to adjust their spending over time may be able to increase the amount spent each year by selecting a variable annuity for which the payment is linked to a risky portfolio of assets.

7. An investor is most likely to demand an annuity if they:

   A. have significant health issues.

   B. have conservative investing preferences.

   C. wish to leave a larger amount to their heirs.

Solution:

Option B is correct. Several factors would generally suggest increased demand for an annuity, including longer-than-average life expectancy, a greater preference for lifetime income, limited bequests motives, more conservative investing preferences because of greater risk aversion, and lower guaranteed income from other sources, such as pensions.

4 INFLATION

☐ recommend planning and investment strategies to mitigate the corrosive influence of inflation on preserving purchasing power

Inflation makes investors and families poorer by reducing their purchasing power and represents a critical long-term risk against which wealth managers must guard. This section will estimate the inflation risk to which investors are exposed and review some of the putative hedges against that risk. Viewed through the lens of the extended family balance sheet, inflation increases the nominal value of the implicit liabilities or future spending on the right-hand of the balance sheet. Unless the assets on the left-hand side increase at least as much, inflation will slowly but surely erode a family's discretionary wealth.

Less wealthy families with fewer real assets and other inflation hedges are hit hardest in part because inflation has a larger proportional impact on their lower discretionary wealth. For wealthier families, the impact of inflation may not be felt as strongly, but over the long term, particularly across generations, inflation can erode the value of accumulated wealth.

Types of Inflation

Economists describe three types of inflation:

- **Cost-push inflation**, in which rising costs, usually wages or other production factors, compel businesses to raise prices generally;
- **Demand-pull inflation**, in which increasing demand generally raises prices, which are then reflected in a business's costs as workers demand wage hikes to catch up with the rising cost of living; and
- **Unanchored inflation expectations**, in which households and firms start to believe that future prices will be higher (or become unanchored) and adapt their behavior accordingly.

Whatever the sequence by which prices and costs rise in an economy, the fundamental cause is the same: excessive demands—either for raw materials, finished goods, or labor—that outstrip the economy's ability to respond. The initial signs appear in the areas with the greatest constraints: the labor market, the commodities market,

or some area of final output. Even before examining cost and price measures, when considering inflation, practitioners look to indicators that might reveal when the economy faces such constraints.

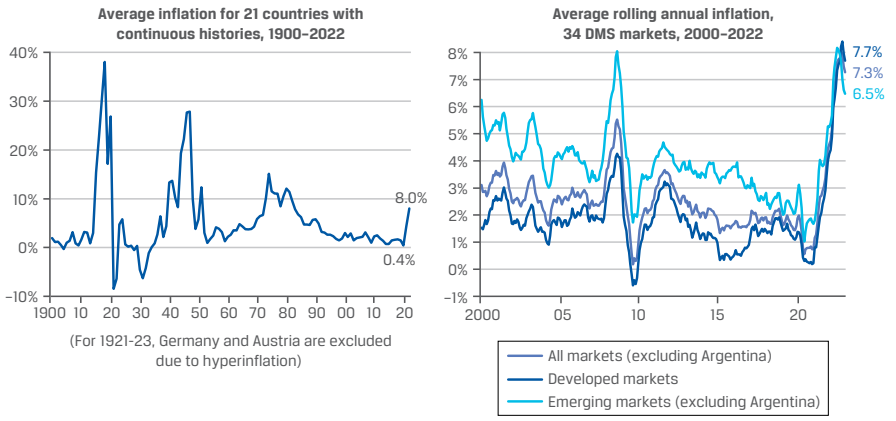
Cost-push inflation is caused by increasing cost of production factors, including labor and commodities. Commodity exposures in a portfolio could serve as a potential hedge against inflation. Wages are the single biggest cost to businesses, however, so practitioners tend to focus most particularly on wage-push inflation. Individual investors with significant human capital on their extended family balance sheet may have a natural partial hedge associated with wage-push inflation. Not all labor is alike, however, and employees in different sectors of the economy may experience the deleterious effects of wage-push inflation in the product market without experiencing a commensurate growth in wages.

RECENT HISTORY OF INFLATION IN THE UNITED STATES

In the United States, inflation was rampant during the World War I, following the Great Depression, and during the 1970s and 1980s during an energy crisis. For much of the last 40 years, inflation in developed markets and even most developing markets was generally tame. Central banks, such as the United States Federal Reserve and the European Central Bank, implemented expansionary monetary policies to increase inflation to their 2% targets, especially in the aftermath of the global financial crisis. The global COVID-19 pandemic created supply chain disruptions and stunted economic growth that ushered in new fiscal and monetary policies, spiking inflation in much of the developed world and causing central banks to implement more restrictive monetary policies. The war in Ukraine illustrated the phenomenon that, throughout much of modern history, inflation has tended to peak in times of war and energy crises.

A longer view of economic history, however, shows that inflation can flare up quickly even after extended periods of calm (Exhibit 23). Inflation tends to exhibit momentum effects or event clustering (i.e., positive autocorrelation). According to Arnott and Shakernia (2023), "Reverting to 3% inflation... is easy from 4%, hard from 6%, and very hard from 8% or more. Above 8%, reverting to 3% usually takes 6 to 20 years, with the median of over 10 years." Once inflation becomes embedded in an economy, businesses, workers, consumers, and other economic actors expect it and build those expectations into their actions. This reaction creates an inflationary momentum and self-sustaining character much like the inflation experience of the 1970s and early 1980s in the United States.

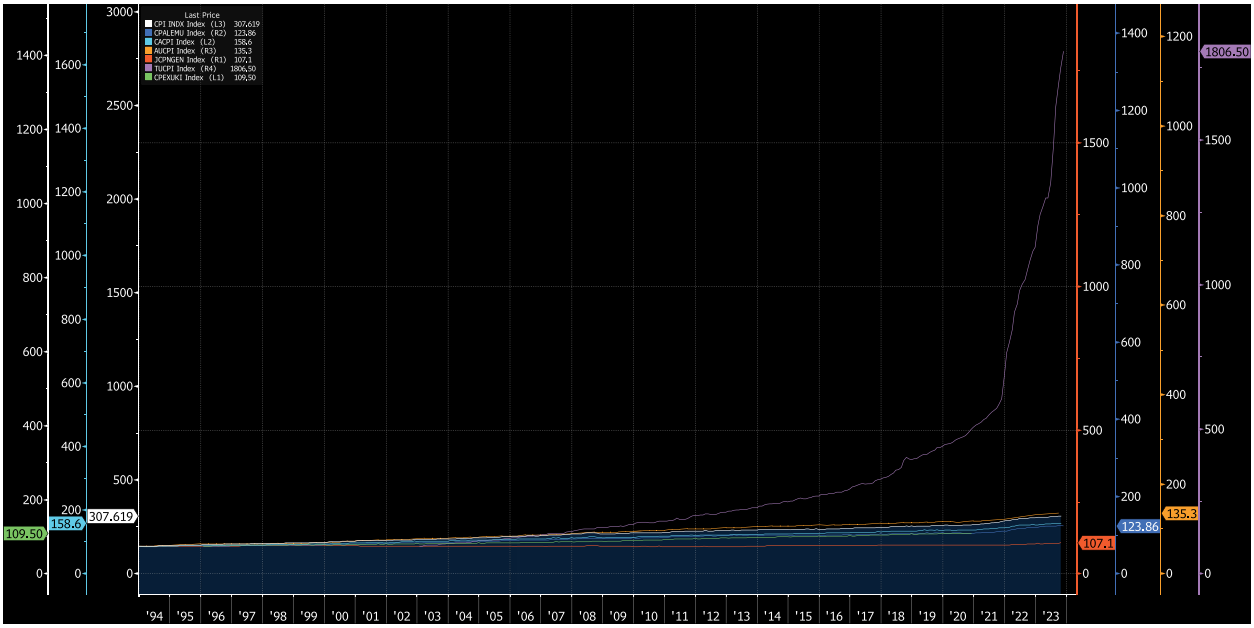
Exhibit 23: Average Inflation for 21 Countries with Continuous Histories, 1900–2022



*Source:*Dimson, Marsh, and Staunton (2023).

Exhibit 24 shows consumer price indexes for various developed markets from 1997 to 2023. Aside from the most recent inflationary episode, the experience of most of these markets has been similar—steady and controlled inflation, with consumer prices typically averaging between 2% and 2.5% growth per year. The notable exception is Japan, which has experienced and extended deflationary periods with inflation averaging less than 50 basis points per year.

Exhibit 24: Consumer Price Indexes for Various Countries



*Source:*Bloomberg, LLP

Inflation in emerging markets, however, is often higher than it is in developed markets. It is also more persistent, partly because the fiscal and economic tools may take longer time to work.

Additionally, political instability can fuel economic insecurity, and vice versa. This pattern frequently appears in countries that have gone through cycles of economic highs and lows. These fluctuations are often the result of several interconnected factors: easy borrowing conditions set by the government or central bank, ineffective or corrupt leadership, and political unrest. Moreover, these countries often deliberately lower the value of their own currency for political reasons. The goal of such devaluations is to make their exports cheaper on the global market, encourage local production of goods that would otherwise be imported, and ultimately stimulate economic growth.

History provides numerous examples of markets that have experienced bouts of hyperinflation. Examples include Germany (1923), Greece (1944), Hungary (1946), Argentina (1989, 1990, 2023), Yugoslavia (1994), Zimbabwe (2008), and Venezuela (2017). The most infamous case of hyperinflation is believed by many to result from the German government printing money to pay World War I reparations, which were required to be paid in gold or another acceptable currency other than the German mark. Years earlier Germany had abandoned the gold standard and financed World War I expenses with borrowing rather than taxation, laying the groundwork for an inflationary spiral that exploded after the end of the war as the country was forced to pay reparations.

Inflation Risk

Hyperinflation presents an obvious investment risk even in the short-term, but even low rates of inflation represent an insidious erosion of purchasing power over the long-term due to compounding effects, putting a family's long-term investment goals (such as retirement planning) at risk. A relatively modest 3% inflation rate compounds to a cumulative 226% increase in consumer prices over 40 years (i.e., $1.03^{40} - 1 = 2.26$), which is a modest retirement planning horizon when one combines the accumulation and decumulation phases. In other words, investors can expect prices to more than double over their retirement planning horizon. A 4% inflation rate over this period increases prices nearly four-fold, allowing investors to purchase only a quarter of what they could in the absence of inflation with the same nominal resources. Despite recent trends in developed countries, inflation remains a substantial and immediate risk.

Measures of Inflation

The inflation rate is measured as the percentage change in a price index, commonly the Consumer Price Index (CPI), which varies by country. Exhibit 25 displays how different countries weigh various goods and services in their CPI.

Exhibit 25: The Consumption Basket of Different Consumer Price Indexes

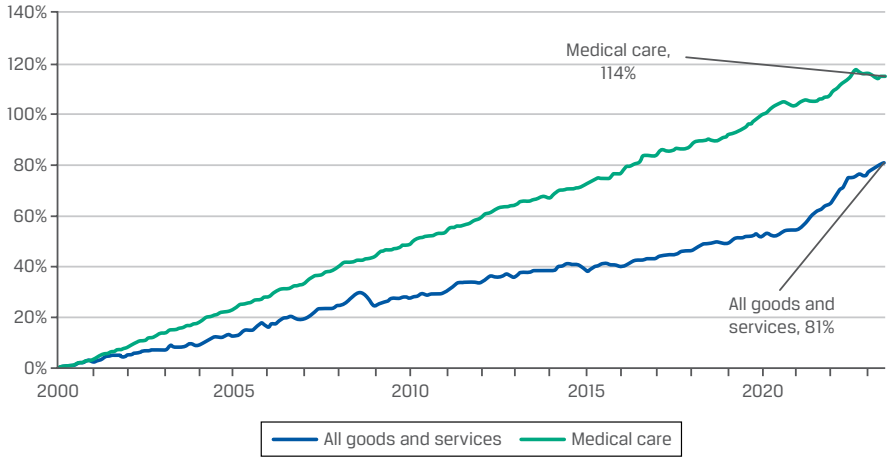
	Country				
	China	**India**	**India**	**Germany**	**United States**
Name of index	CPI	CPI(UNME)	CP1(Urban)	HICP	CPI-U
Year[a]	2016[b]	1984/85	2012[c]	2017/18	2017/18
Category (%)					
Food and beverage	30	47.1	37.7	14	15.3
Housing and utility	21	21.9	27.2	31.7	37.9

	Country				
	China	India	India	Germany	United States
Furniture	6	2	3.9	5	4.2
Apparel	7.5	7	5.6	4.5	3.3
Medical care	8	2.5	4.8	4.4	7.7
Transportation and communication	13	5.2	9.7	16.5	15.3
Education and recreation	10.5	6.8	7.6	12.3	9.1
Others	4	7.5	3.5	11.6	7.2

Notes: CPI-U, CPI for All Urban Consumers; HICP, Harmonised Index of Consumer Prices; UNME, Urban Non-Manual Employees.
[a]*The base year of the weights, when it is appropriate.*
[b]*Weights for China are not released publicly. Imputed numbers given as of 2018 are from the Reserve Bank of Australia.*
[c]*India redefined the CPI bundle for urban consumers in 2012.*
Source: Government websites and calculations.

Although a measure of CPI is typically used to measure inflation in a particular economy, there is more than one inflation rate. Inflation affects individuals and families differently. Wealth managers must consider how inflation affects specific liabilities, such as education and healthcare costs, on the family's balance sheet. Baumol and Bowen (1965) showed that the cost of education and healthcare, which have slow productivity growth, experience faster inflation compared to high-productivity sectors like manufacturing. In developed nations like the United States, education and healthcare costs have consistently outpaced general consumer inflation for decades. Thus, planning for healthcare in retirement and children's education becomes crucial. Exhibit 26 compares inflation rates for medical care and core consumer inflation between 2000 and 2023 in the United States.

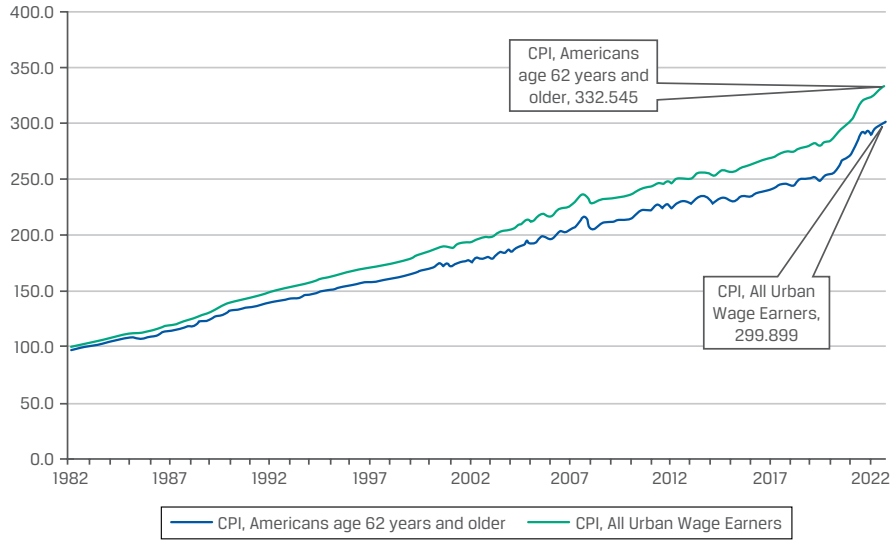
Exhibit 26: Cumulative Medical Cost and CPI in the United States, between 2000 and 2023



Source: US Bureau of Labor Statistics, "Research Consumer Price Index: All Items [CPIEALL]," Federal Reserve Economic Data. www.fred.stlouisfed.org/.

Older citizens typically have very different spending patterns than younger citizens. To capture these variations, the US Bureau of Labor Statistics (BLS) publishes an index called CPI-E (Consumer Price Index for the Elderly), which focuses on US citizens 62 years or older. While it measures the same categories as CPI-W (Consumer Price Index for Urban Wage Earners and Clerical Workers), it adjusts the weightings to better reflect the elderly's spending. Notably, CPI-E almost doubles the weighting for healthcare costs (from 5.6% to 11%) and reduces the weight for education and transportation. Over the past 40 years, CPI-E has risen more than CPI-W, largely due to the higher rate of healthcare cost inflation that significantly impacts the elderly as Exhibit 27 shows. However, the US BLS labels CPI-E as an experimental index, cautioning its limitations, such as the fact it does not account for the specific geographies where the elderly live or the discounts they may receive.

Exhibit 27: Consumer Price Index for Urban Wage Earners vs. Consumer Price Index for the Elderly, 1982–2022

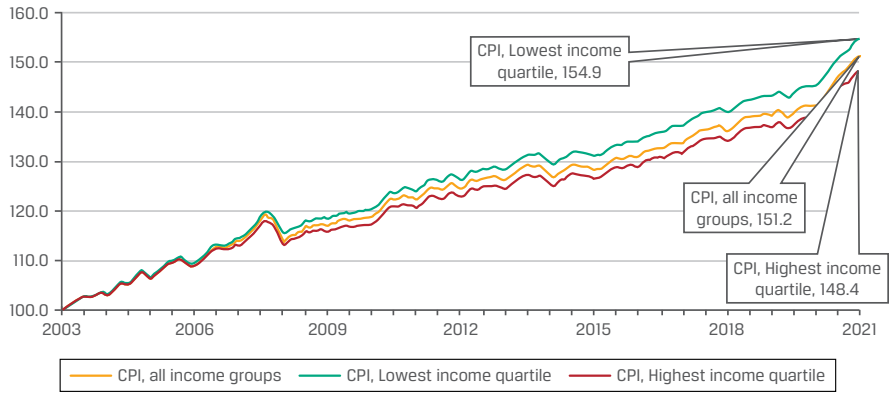


*Source:*US Bureau of Labor Statistics, www.bls.gov.

Inflation rates vary by lifestyle and income levels. Individuals with limited financial resources are usually more affected by energy price fluctuations compared to HNWIs. Luxury items like jewelry and art often deviate from general price trends and can be resilient during economic downturns. Forbes introduced the Cost of Living Extremely Well Index in 1976, which tracks 40 luxury goods and services. Over 34 years, this index has exceeded the US Consumer Price Index by an annual 2.4%, reaching a level 2.25 times higher.

The US BLS has compared consumer price indexes across income brackets to study differing inflation impacts. Lower-income households often face higher inflation rates, while higher-income households tend to experience below-average rates because they can adjust both their non-discretionary and discretionary spending in response to inflation. To save money, the wealthier income levels can opt to shop for food at more affordable stores, reduce dining out, and cut back on costly family vacations. Additionally, variations in shopping locations and brand preferences between these income groups contribute to these disparities. Exhibit 28 illustrates these inflation differences.

Exhibit 28: Consumer Price Index for Lowest and Highest Income Quartiles, 2003—2021



*Source:*US Bureau of Labor Statistics, www.bls.gov.

Inflation's impact can be mitigated if a family's assets include natural hedges against inflation. However, this isn't always the case, prompting wealth managers to explore additional investment strategies to hedge against inflation. Standard hedges tracking CPI may not adequately cover specific liabilities like education or medical expenses, which usually inflate faster than general price levels. Certain insurance types can serve as natural hedges against these liabilities. Prepaying insurance premiums for policies with inflation-adjusted payouts is another strategy for hedging against inflation in specific categories. In the United States, some universities offer tuition prepayment to hedge against future education inflation.

Measuring Inflation Risk

If inflation risk presents itself in investment goal liabilities on the right-hand side of the extended family balance sheet, it can be managed by choosing inflation-hedging investments on the left-hand side of the balance sheet. The amount of exposure can be expressed in nominal units of currency, and the optimal amount of inflation hedging exposure can be expressed as the nominal exposure multiplied by the minimum variance inflation hedge ratio.

Consider an investment goal with an inflation factor beta of $\beta_{Inf,Goal}$ derived conceptually from the following relationship:

$$R_{Goal,t} = \alpha_0 + \beta_{Inf,Goal}\pi_t + \epsilon_t,$$

where $R_{Goal,t}$ is the return or nominal growth of an investment goal in period t, π_t is inflation (expected and unexpected) in period t, and ϵ_t is an error term.

The nominal return or growth of an investment goal, such as the present value of retirement income, is challenging to observe directly. Unlike inflation, which relies on observable market prices, the nominal return is based on a subjective discounted cash flow analysis. However, one can heuristically assess its sensitivity to inflation. Similar to market beta, the investment goal's inflation factor beta, denoted as $\beta_{Inf,Goal}$, can be broken down into two components: ρ, the correlation coefficient between the investment goal's return and inflation, and the relative volatilities σ_{Goal} and σ_{Inf} of the investment goal and inflation, respectively.

$$\beta_{Inf,Goal} = \rho\frac{\sigma_{Goal}}{\sigma_{Inf}}.$$

From 1926 to 2022, the United States has experienced an average annual inflation of 3.01%, with an annual volatility of 3.98%. To gauge the correlation and nominal volatility of an investment goal in relation to this historical data, one can employ a suitably designed regression analysis. Inflation hedging becomes more effective or crucial when:

- the correlation between the investment goal and inflation rises,
- the relative volatility of the investment goal increases, and
- the strength of the relationship between the investment goal and inflation, as indicated by the R-squared value of the regression, intensifies.

Additionally, the importance of inflation hedging escalates with an increase in the investor's risk aversion and the extension of the investment time horizon. A similar approach can be used to find the inflation beta of potential hedge asset, $\beta_{Inf,Hedge}$ derived conceptually as

$$R_{Hedge,t} = \alpha_0 + \beta_{Inf,Hedge}\pi_t + \epsilon_t,$$

where $R_{Hedge,t}$ is the return on the hedge asset in period *t*. The inflation hedge ratio represents the relative notional amount of exposure to take in a hedged asset to offset the pre-existing exposure and can be represented as

$$H_{Inf} = \left(\frac{\beta_{Target} - \beta_{Inf,Goal}}{\beta_{Inf,Hedge}}\right)\left(\frac{Goal}{Hedge}\right),$$

where

β_{Target} = the desired amount of inflation exposure,

Goal = the nominal amount of the investment goal to be hedged, and

Hedge = the amount of the hedging asset. In the special case in which the goal is to eliminate inflation risk, β_{Target} would be set to zero and the formula reduces to

$$H_{Inf} = -\left(\frac{\beta_{Inf,Goal}}{\beta_{Inf,Hedge}}\right)\left(\frac{Goal}{Hedge}\right).$$

The model emphasizes strategic asset allocation as a hedge against inflation, regardless of the total asset size. Individuals who deplete a greater portion of their human capital should give precedence to long-term strategies that protect against inflation. For HNWI and UHNWI, the inflationary impact may be less consequential. However, completely hedging their entire portfolio against inflation is often not feasible. A more practical approach for them is to hedge only the portion of their wealth that aligns with their anticipated lifetime expenses.

KNOWLEDGE CHECK: INFLATION HEDGING

Wendell Peters, CFA, is advising Jose and Maria Cruz, a young couple living in the Philippines with two children ages 6 and 8. They are concerned about the effect of local inflation on their ability to achieve their investment goals, specifically their wishes to pay for their children to attend a private university in Europe and fund their retirement in Spain.

Peters estimates the annual cost of a European private higher education to be EUR50,000 annually in 10 years' time and generally subject to a 5% inflation rate. He further estimates that this potential liability has a 2% discount rate, 3% annual volatility, and 0.40 correlation with European inflation-linked bonds (ILBs). European inflation has a 3.5% annual volatility.

Peters then analyzes the Cruzes' Spanish retirement goal and finds that it has a longevity-adjusted present value of EUR4 million, annual volatility of 5%, and 0.50 correlation with European ILBs.

1. If they choose European ILBs to hedge the inflation exposure, how much exposure will minimize inflation risk to the education goal?

   Solution:

   The present value of a four-year annuity subject to 5% inflation in 10 years' time is EUR171,451. The present value of a four-year annuity subject to 5% inflation 12 years hence is EUR181,685. The inflation factor beta is $\beta_{Inf,Goal} = \rho\frac{\sigma_{Goal}}{\sigma_{Inf}} = 0.40\frac{0.03}{0.035} = 0.343$, where ρ denotes the correlation with European inflation-linked bonds, σ_{Goal} denotes the volatility of the annual cost of a European private high education, and σ_{Inf} denotes the annual volatility of European inflation. Peters would therefore recommend 0.343 × (EUR171,451 + EUR161,685) = EUR121,675 of European ILBs to hedge the inflation exposure to the educational goal.

2. How much exposure to European ILBs will minimize inflation risk to the retirement goal?

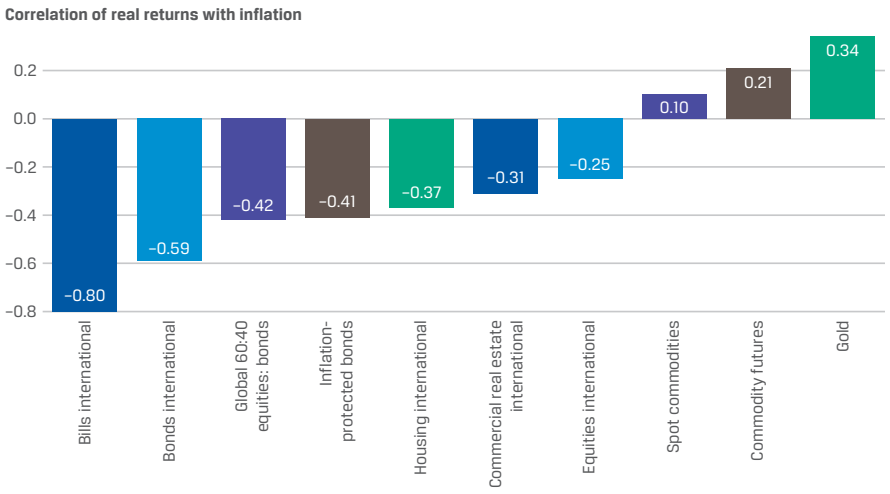
   Solution:

   The inflation hedge ratio of the retirement goal equals 0.50 × (0.05/0.035) = 0.71. The amount of European ILB exposure needed to hedge the inflation risk is therefore 0.71 × EUR4,000,000 = EUR2,857,143.

Financial Assets and Inflation

There are asset classes that might be expected to hedge investment goal liabilities denominated in nominal currencies. For effective hedges, correlations are important. Dimson, Marsh, and Staunton (2023) report the correlations between local inflation and returns to various asset classes in 35 countries using the Dimson, Marsh, and Staunton (DMS) database in Exhibit 29.

Exhibit 29: Correlations between Local Inflation and Real Asset Returns for a Range of Asset Classes, 1900–2022



*Source:*Dimson, Marsh, and Staunton (2023).

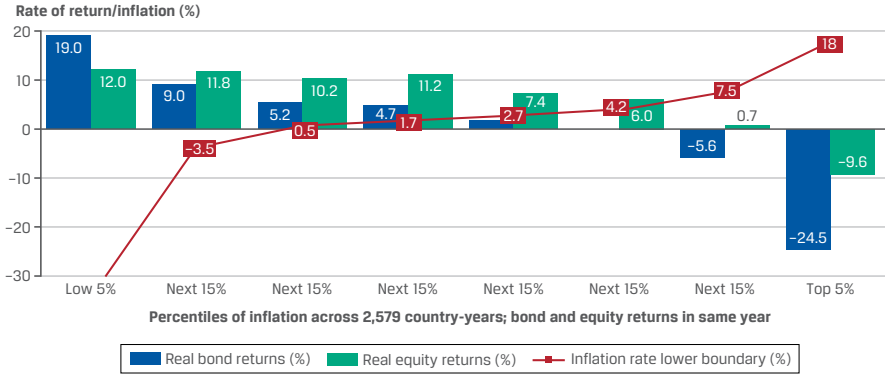
This DMS database contains financial return data for a total of 90 countries. Of these, 35 countries have annual data on stocks, bonds, and bills, as well as inflation and currency rates. Within this group of 35, 23 countries have extensive records spanning 122 years, from 1900 to 2022. Hence, as Exhibit 29 indicates, it is an uncommon, long-term global phenomenon for asset classes to exhibit a positive correlation with inflation and serve as an inflation hedge.

Fixed Income

As investments with contractually fixed cash flows in nominal terms, conventional bonds have a strong negative correlation with inflation. Interest rates tend to rise with inflation, discount these nominal cash flows at a higher rate, and decrease their value.

Exhibit 30 shows that this negative correlation with contemporaneous inflation predictably translates into poor performance during high inflationary times, which represent about a third of the regimes examined.

Exhibit 30: Real Bond and Equity Returns versus Inflation Rates (1900-2022)



*Source:*Dimson, Marsh, and Staunton (2023).

Inflation-Linked Fixed Income

For an asset to hedge inflation effectively, its real return (nominal minus inflation) should be relatively stable across time and inflation regimes. That is not the case for fixed income, which has real returns that vary substantially across different inflationary rate environments, especially high inflation environments.

A variety of fixed income instruments increase or decrease coupon payments based on the inflation rate, making them candidates for inflation hedging. Examples include inflation-linked gilts in the United Kingdom, European ILBs in Europe, and Treasury Inflation Protected Securities (TIPS) in the United States. In some countries (e.g., Chile), there are inflation-linked corporate bonds. According to Exhibit 29 above, however, the correlation between inflation and the returns of 20-year constant maturity, coupon-bearing, inflation-linked bonds is –0.41, making them a surprisingly poor inflation hedge historically. Although the negative correlation is half as large as that for conventional bonds with coupons that are not indexed to inflation, these bonds are still exposed to price risk resulting from interest rate fluctuations.

Inflation-Linked Annuities

Annuities, which can be considered as a type of fixed income investment, can be used to manage longevity risk. Some markets offer inflation-adjusted annuities to investors. In fact, most national retirement programs (like Social Security in the United States and Canada) adjust old-age benefits annually based on increases in the wage rate or CPI, making these programs effectively equivalent to inflation-adjusted annuities. Some benefits of inflation-adjusted annuities are that they

- simultaneously manage longevity and inflation risk and
- generate income that is highly correlated with inflation (even if the present value of the annuity stream is not)

Disadvantage of inflation-adjusted annuities are:

- The inflation index to which annuity payments are linked may not represent the inflation rate experienced by the retiree.
- Some inflation-adjusted annuity products simply increase annuity payments by a fixed percentage, such as 3%, rather than linking the payments directly to actual inflation.
- Their cost is usually higher than that of a non–inflation-adjusted annuity.

Borrowing

The high negative correlation with inflation across many asset classes can appear discouraging for those seeking to actively control inflation. Investors may still be able to hedge inflation with highly negatively correlated assets if investors can take short positions in those assets.

A short position in fixed income, the most highly correlated asset with inflation, is effectively borrowing. In other words, investors concerned about inflation (i.e., a decline in the purchasing power of currency) can partially insulate themselves from rising prices by borrowing money that is paid back in less valuable currency units during inflationary environments. A couple of caveats are in order, however.

1. Borrowing introduces leverage into the family balance sheet and exposes the family to greater financial risk in the absence of an intentional adjustment to the family's asset allocation to decrease risk.
2. Using the proceeds from borrowing to increase the asset allocation to bonds reintroduces the inflation risk the investor sought to avoid in the first place, and most likely adds a net interest rate cost to the investor. Therefore,

borrowing proceeds would need to be invested in assets with characteristics different from the borrowing terms. For example, a wealth manager may advise using the proceeds of a short sale to purchase TIPS, variable rate debt, an inflation-linked annuity, or perhaps some other one of the lower volatility assets listed below.

3. Assets may be required by the lender to secure the loan, particularly as the individual nears or is in retirement.

Hedging against inflation is complex; informed and strategic choices can offer a degree of protection, but it can introduce risks that need to be hedged separately.

Equity

Equity is often considered to be an effective inflation hedge, but historically, this has not been the case. The average correlation between real equity returns and inflation has been –0.25 from 1900 to 2022 (see Exhibit 29 above).

Exhibit 31 shows that this negative relationship with inflation translates into poor real returns during inflationary environments. This result surprises many who observe that the long run returns on equity handily surpass inflation. It is important to distinguish, however, between surpassing inflation and hedging inflation.

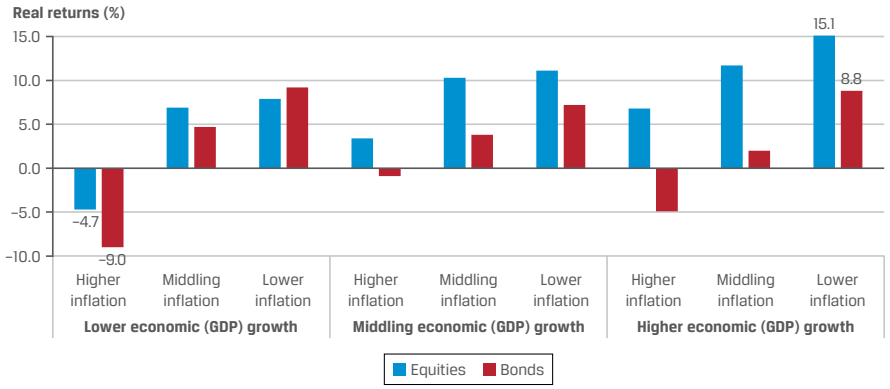
Exhibit 31: Nominal and Real Bond and Equity Returns by Inflation Regime (1900–2021)

		Inflation bucket			
	All	**<0%**	**0%–2%**	**2%–4%**	**>4%**
Years	147	23.1	42.9	34.9	46.1
Likelihood (%)	100	15.7	29.2	23.7	31.4
Inflation (%)	3.2	–3.1	1.2	2.8	8.5
Al. Asset classes (nominal return in%)					
Equities	8.4	2.4	11.1	11	6.9
Bonds	4.5	5.2	4.7	4.5	3.9
Cash	3.4	2.8	2.7	3.4	4.2
60/40	6.8	3.5	8.5	8.4	5.7
A2. Asset classes (real return in %)					
Equities	5.1	5.5	9.8	8.2	–1.7
Bonds	1.2	8.4	3.4	1.6	–4.6
Cash	0.1	5.9	13	0.5	–4.3
60/40	3.5	6.7	7.2	5.6	–2.9

*Source:*Baltussen, Swinkels, van Vliet, and van Vliet (2023).

Businesses capable of passing increased costs onto consumers, especially those offering essential goods or services with strong brand loyalty and limited competition, tend to fare better. Investing in such companies can help preserve investment value and generate consistent earnings. Stocks in energy or resource mining can also be strong performers during inflation, although investing directly in commodities offers a more direct hedge, as discussed later. In an inflationary economy, equities perform better when economic activity is high, see Exhibit 32. However, equity returns remain negatively correlated with inflation, regardless of the economic growth category.

Exhibit 32: Real Equity and Bond Returns versus Inflation Rate and Real Economic Growth, 1900–2022



*Source:*Dimson, Marsh, and Staunton (2023).

Commodities

Investments in commodities can be made directly into physical commodities in the spot markets or indirectly through trading in the commodity derivatives (financial) market. Whether these are physical or financial commodity exposures, their inflation hedging features differ. Gold, a commodity, is often considered to be a natural inflation hedge.

Spot Markets

In some sense, changes in commodity prices represent inflation almost definitionally since they are goods in the marketplace. Price indexes, however, measure prices of outputs to the consumer, whereas commodities are often inputs into the production process. Price changes in one may or may not transmit to the other.

According to Exhibit 29 above, the correlation of a diversified equally weighted portfolio of spot commodities has a +0.10 correlation with inflation, which (although modest) is at least positive. Exhibit 30 shows that spot commodity real returns are also positive. The positive correlation and positive real return, however, translates into a poor inflation hedge because the annual volatility of real return is high. Exhibit 33 shows that the annual volatility of an average spot commodity is 27.55%, which is comparable to the volatility of equity market returns and drives the geometric mean excess return down to –0.93%. The annual volatility drops to 12.47%, however, when spot assets are combined into an equally weighted portfolio, representing a diversification effect that increases the geometric return to 1.58%.

Exhibit 33: Spot Commodity Returns, 1900–2022

	Real inflation-adjusted returns			Excess returns
Commodity	Geometric mean (%)	Arithmetic mean (%)	Standard deviation (%)	Geometric mean (%)
Aluminum	–1.88	0.49	25.47	–2.31
Cattle	0.06	0.99	13.85	–0.39
Coal	0.91	2.71	21.18	0.46

	Real inflation-adjusted returns			Excess returns
Commodity	Geometric mean (%)	Arithmetic mean (%)	Standard deviation (%)	Geometric mean (%)
Cocoa	–1.20	3.01	31.68	–1.64
Coffee	–0.54	3.59	31.36	–0.99
Copper	–0.46	2.57	27.13	–0.91
Corn	–0.33	3.79	30.83	–0.77
Cotton	–0.23	3.55	28.45	–0.68
Eggs	–0.93	1.85	24.73	–1.37
Gold	0.76	1.98	17.18	0.31
Hogs	–0.49	3.33	30.27	–0.93
Iron ore	–0.05	2.41	24.73	–0.50
Lard	–0.67	3.66	30.85	–1.11
Lead	–0.05	2.81	25.61	–0.49
Lumber	–0.92	1.00	21.14	–1.36
Nickel	1.20	5.53	37.05	0.74
Oats	–0.70	3.35	30.96	–1.14
Oil	0.27	3.66	28.38	–0.18
Palm oil	–0.95	2.51	27.66	–1.39
Platinum	0.41	2.69	22.44	–0.04
Rice	–1.39	0.68	23.46	–1.83
Rubber	–3.21	4.22	46.76	–3.64
Silver	0.10	3.68	34.96	–0.35
Sugar	–1.48	4.50	37.22	–1.92
Tea	–1.68	–0.66	17.20	–2.12
Tin	0.24	3.27	26.89	–0.21
Tobacco	–0.14	1.32	17.21	–0.59
Wheat	–0.79	2.00	25.46	–1.23
Zinc	–0.05	5.06	38.94	–0.50
Average	–0.49	2.74	27.55	–0.93
Equally weighted portfolio	2.04	2.74	12.47	1.58

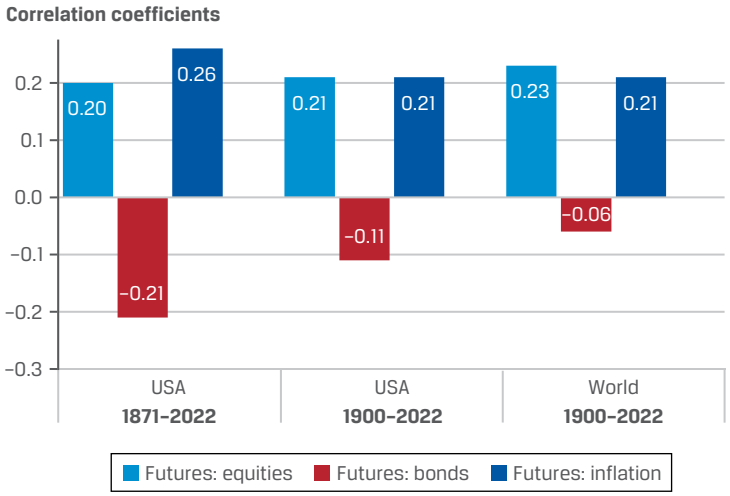
Note: The penultimate row labeled "Average" shows the averages of the previous 29 rows for the individual commodities.
*Source:*Dimson, Marsh, and Staunton (2023).

Commodity Futures

Investors tend to avoid investing in physical commodities because trading and storing them is often costly, burdensome, and impractical. Although the market for commodity futures is much thinner globally than the fixed income and equity markets, investors could systematically invest in commodity futures as a potential inflation hedging strategy. According to Exhibit 29 above, the correlation of a diversified equally weighted portfolio of commodities futures has a +0.21 correlation with inflation, which, although greater than the correlations for spot commodities, is still fairly modest.

They are also relatively uncorrelated with the returns on equity and fixed income (Exhibit 34), making them strong diversifiers in an overall portfolio. The DMS data also shows that the geometric mean return of an equally weighted futures portfolio is a lot higher than for an equally weighted spot commodity portfolio.

Exhibit 34: Correlations of Commodity Futures with Stocks, Bonds, and Inflation



*Source:*Dimson, Marsh, and Staunton (2023).

Although the annual correlation of commodity futures with inflation is positive but somewhat modest, Gorton and Rouwenhorst (2006) found that the correlation increases to +0.45 for a five-year holding period, suggesting the commodity futures may be better inflation hedge in the long-term than the short-term. However, maintaining a consistent long-term exposure in the commodity futures market may not always be practicable.

According to Ilmanen (2022), commodity futures also enable wealth managers to hedge against different types of inflation. Cost-push inflation caused by a rise in energy prices can be hedged with energy futures. Demand-pull inflation can be effectively hedged with commodity futures on industrial metals. And inflation caused by excessive central bank monetary easing and/or banking crises may be best hedged with precious metals, especially gold.

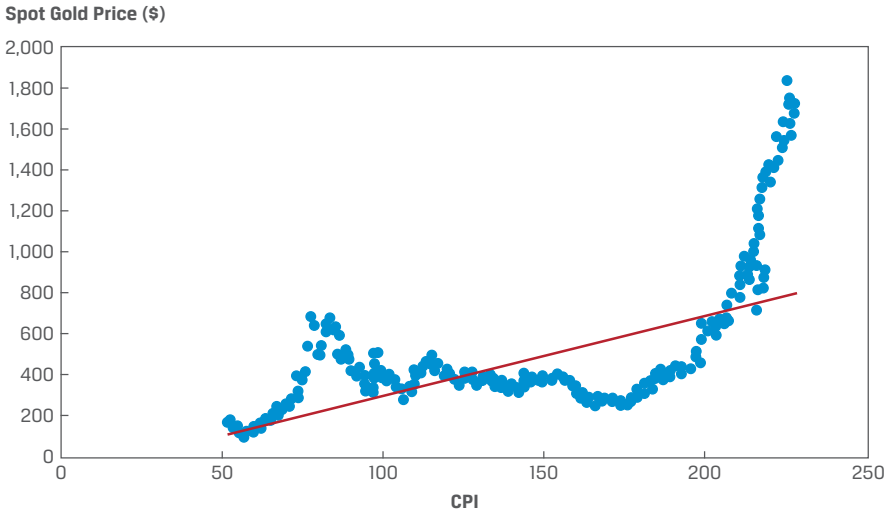
Gold

Gold deserves special attention as a commodity and as a precious metal. It enjoys special cultural significance as a store of value of and protection against economic calamity. Some consider it an anchor of value and antidote to the risks associated with fiat currencies.

According to Exhibit 29, gold has the highest correlation with inflation. Importantly, however, this correlation relates to the correlation from 1972 to 2022, the period after which currencies were no longer pegged to gold. Prior to 1972 nominal changes in the price of gold were effectively zero except for occasional devaluations. The average correlation of gold prices with inflation over the full 1900 to 2022 period is –0.04.

According to Exhibit 35, the price of gold has indeed increased as price levels have increased. However, the price of gold swings substantially around CPI. If gold were an effective short-term hedge for inflation, there would be much less variation around CPI and the real price of gold would be constant.

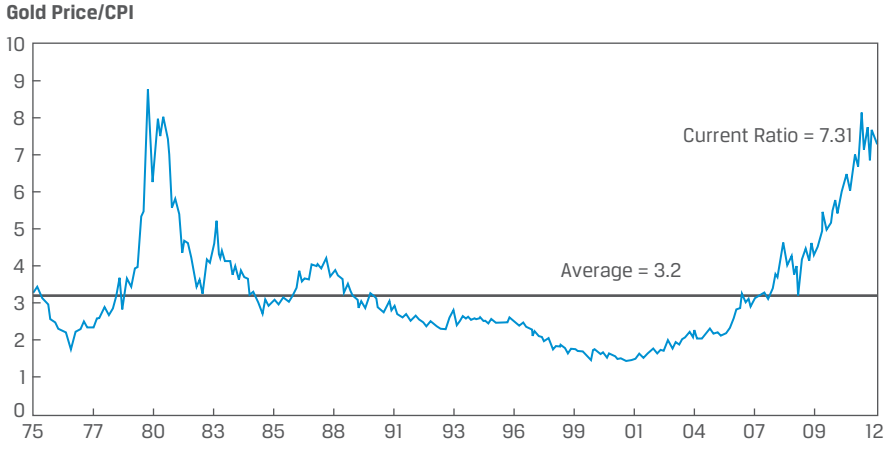
Exhibit 35: Gold as Inflation Hedge



*Source:*Erb and Harvey (2013).

The real price of gold from 1975 to 2012 displayed in Exhibit 36 shows tremendous variability year over year, tripling in the first five years, falling by 80% over the subsequent 20 years, and rising five-fold over the next 10 years.

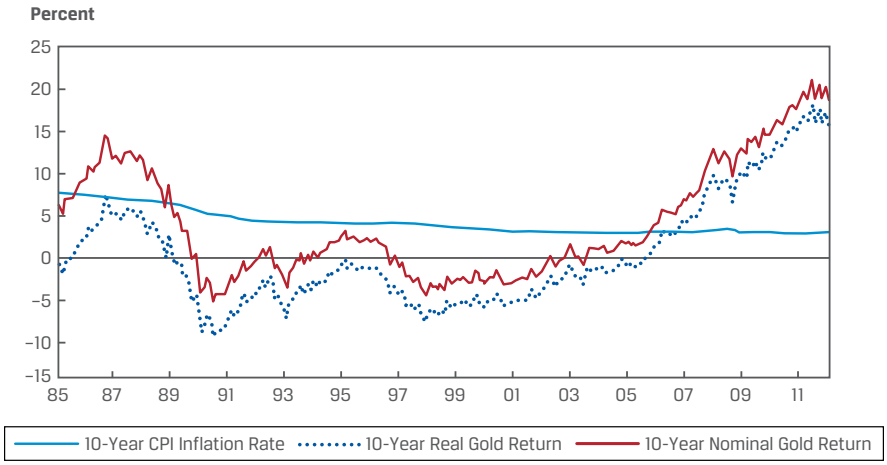
Exhibit 36: The Real Price of Gold Since the Advent of US Futures Trading, 1975–2012



*Source:*Erb and Harvey (2013).

Gold does not correlate highly with inflation over the long term. Exhibit 37 compares the rolling 10-year real and nominal returns to gold with the rolling 10-year inflation rate. The trailing 10-year real gold return was negative from 1985 to 2005, suggesting it was not an effective long-term inflation hedge.

Exhibit 37: Long-Term Inflation Hedging and Gold Returns, 1985–2012



*Source:*Erb and Harvey (2013).

Real Estate

Real estate investments can be categorized as residential or commercial. Commercial real estate can be further subdivided into multifamily dwellings, industrial buildings, offices, logistics and last mile infill, hospitality and hotels, retail, and a catch-all category that includes self-storage, theme parks, car washes, bowling alleys, boating marinas, movie theaters, funeral homes, community centers, and nursing homes. These categories evolve over time—logistics and last mile infill were virtually non-existent at the turn of this century. The annual correlations between inflation and the returns of these various real estate categories are also generally negative, despite the belief that real estate is an effective inflation hedge. Although housing prices tend to increase in inflationary environments, rental rates and lease agreements are often fixed at least in the short term but can keep pace with inflation over the longer term. Like TIPS, the capital component of total return also needs to be considered and is dragged down by the higher interest rates that tend to accompany inflation.

Inflation and Taxes

Taxes are based on nominal income and returns rather than real income and returns. Put differently, the tax basis on which capital gains tax is calculated is typically not indexed for inflation, except in rare instances. Therefore, when inflation is high and nominal returns increase to compensate investors for expected inflation, so too does the investor's tax liability, even if pretax real returns are unaffected.

Consider the simple example of a one-year investment earning a 10% pretax return subject to a 30% capital tax. In a non-zero inflationary environment, the nominal after-tax value of each dollar is USD1.07 (i.e., $1 + 0.10 \times [1 - 0.30]$), which is also the real after-tax value in the absence of inflation. If, however, the investor earns the

same pretax 10% real return with a 15% nominal pretax return in a 5% inflation environment, the investor is now paying 30% on a 15% return rather than a 10% return. The nominal after-tax value is USD1.105 (i.e., 1 + 0.15 × [1 – 0.30]). Converting this nominal value into real terms at the 5% inflation rate decreases the nominal value to a real value of USD1.052, which is less than the USD1.07 had the nominal return been 10% with 0% inflation.

This can be seen more generally from the following expression for the after-tax future value interest factor of investments taxes as capital gains, $FVIF_{cgb}$,

$$FVIF_{cgb} = (1 + r)^n\left(1 - t_{cg}\right) + t_{cg}B,$$

where the cost basis is expressed as a proportion, B, of the current market value of the investment, and t_{cg} is the tax rate on capital gains. As inflation increases over time and inflates current values, the proportion of the current market value of the investment representing the basis decreases, thereby decreasing the after-tax value of the asset in both nominal and real terms.

The effect is more pronounced for higher tax rates and longer time horizons. The interaction between taxes and inflation is also multiplicative. So, if either is low, the effect is modest. As a result, tax law can be favorable to equities when inflation is low. When inflation is high, the capital gains tax structure of equities reduces their relative attractiveness.

KNOWLEDGE CHECK: INFLATION AND TAXES

Csilla Etel, CFA, is estimating the impact of inflation on the real after-tax value of her client's HUF120 million portfolio in Hungary this past year. She notes that the portfolio experienced a HUF20 million increase in value last year (all of which will be taxed as capital gains), during which time the Hungarian inflation rate was 12%. The relevant Hungarian capital gains tax rate is 40%.

1. What is the nominal after-tax value of the portfolio?

   Solution:

   The nominal after-tax value equals HUF100 million + HUF20 million × (1 – 0.40) = HUF112 million.

2. What is the real after-tax value of the portfolio using beginning year prices as the base year?

   Solution:

   Adjusting this nominal value for 12% inflation reduces the real value of the portfolio to HUF112 million / 1.12 = HUF100 million.

   In other words, despite the impressive pre-tax nominal return of 20%, taxes and inflation caused the real value of the portfolio to not change at all.

For the wealth manager and the client, there is simply no single investment tool that effectively hedges against inflation. But, a combination of tools, including both tradable and non-tradable assets, can offer partial or blunt protection from the ravages of inflation. The advantage of using multiple tools is their modest correlations with each other, providing general diversification in a wide variety of economic environments. This is especially true in the longer term.

Stocks and bonds have been poor inflation hedges even if their returns tend to exceed inflation. This is a global phenomenon. Returns to commodity futures, however, have a modest positive correlation with inflation, making them a potential hedge for

inflation. However, this is based on mainly US data. Additionally, commodities' negative correlations with stock and bond returns tend to increase with the holding period (Gorton and Rouwenhorst [2006]), making them both a potential diversifier as well.

QUESTION SET

1. For wealth planning purposes, it is *most* appropriate to manage the impact of inflation in:

   A. the client's assets.

   B. the client's liabilities.

   C. an index of all goods and services.

   Solution:

   The most appropriate response is B. Inflation poses a financial risk when the value of liabilities, or expenditures, is escalating at a pace faster than assets, or income and savings, within the household. Inflation can vary across countries, industries, and specific products and services. It is important to factor in the specific goals that make up a client's primary liabilities (i.e., education, healthcare, a second home, etc.) as the loss of purchasing power to meet these goals will have an outsized impact on the client's well-being.

2. The situation in which rising prices cause workers to require higher wages is *best* described as:

   A. cost-push inflation.

   B. demand-pull inflation.

   C. unanchored inflation expectations.

   Solution:

   Answer B is correct. Demand-Pull Inflation occurs when overall demand significantly overshadows supply, leading to increased prices and subsequent demands for higher wages to cope with the escalating cost of living.

3. Inflation hedges tend to be *most* effective when:

   A. the volatility of the investment goal is low.

   B. the correlation between the investment goal and inflation is high.

   C. the R^2 of the relationship between the investment goal and inflation is low.

   Solution:

   Option B is correct. Inflation hedging is more effective or important as the correlation between the investment goal and inflation increases; the relative volatility of the investment goal increases; and the strength of the relationship between the investment goal and inflation (e.g., R^2 of the regression) increases.

4. Which of the following assets has typically had the greatest potential as an inflation hedge?

   A. Bonds

   B. Stocks

C. Commodities

Solution:

Answer C is correct. Stocks and bonds have negative historical correlations with inflation. Only commodities have positive correlations.

EXCHANGE RATE RISK 5

☐ describe how exchange rates influence asset allocation and planning as well as approaches to mitigate the exchange rate risk

Some families accumulate and spend their resources largely within one country using the same currency, apart from the occasional international vacation or purchase from a foreign website. This is often the case for large, developed economies, such as the United States. Other families have cross-border footprints with assets located in various jurisdictions and denominated in various currencies. Liabilities associated with their consumption and investment goals may be denominated in yet another currency, creating exchange rate risk for the wealth manager to address.

Although geographic diversification is generally sound investment advice, it is especially true for multi-jurisdictional families. It is often wise to invest in locales with stable political regimes, and in assets denominated in a stable currency. The rationale to locate assets and/or liabilities in various jurisdictions and hence be denominated in different currencies are many and are discussed in more detail elsewhere in the curriculum. They include:

- *Choosing favorable taxation regimes*: Families in highly taxed jurisdictions may choose to locate assets abroad in jurisdictions that tax the income and/or capital gains more lightly. Capital gains from property and financial instruments in Singapore are generally not taxable, provided investors are not in the business of trading such shares. The British Virgin Islands (BVI) similarly has no capital gains tax or income tax.
- *Protecting assets from inflation or intentional currency devaluations*: A country can boost its exports and/or reduce its real debt burden by devaluing its currency. Developed economies with independent central banks having low inflation mandates mitigate much of this risk for citizens and investors. On the other hand, the central banks of some developing economies are subject to intense pressure from the government. The Turkish lira, for example, depreciated 90% over the 10-year period ending 31 December 2022. In 1949, for example, the UK government reduced the exchange rate between the British pound and US dollar from USD4.03/GBP (the rate confirmed by the Bretton Woods agreements of 1944) to USD2.80/GBP to combat an outflow of domestic currency and a domestic dock strike.
- *Securing legal protection from third-party claims*: Some jurisdictions, like the BVI, offer strong legal protections. A common law jurisdiction with modern, efficient, cost-effective legal processes provides attractive protection for investors. For example, investors holding assets in a BVI holding company enjoy limited personal liability from those holding company debts.
- *Protecting assets from governmental confiscation*: This form of political risk is less severe for jurisdictions with strong recognition of private property rights and strong legal systems to enforce and protect them. Citizens of

some developing economies, on the other hand, are at risk of confiscation of private property. Although confiscation often focuses on business property (such as privatization of oil producing assets in Venezuela and more recently efforts in Mexico), these business assets are often owned directly or indirectly by private investors.

Many affluent families may also choose to pursue citizenship in another country in which they may or may not reside. Cyprus, for example, offers investors a permanent resident permit that can lead to a subsequent Cypriot/EU citizenship but does not require the investor to reside in Cyprus. Interestingly, strategies intended to achieve one goal (such as reducing legal risks or taxes) sometimes introduce different risks. For example, investors who chose to locate assets in Cyprus in 2013 because of its strong legal protections and relatively modest tax rates found themselves subject to capital controls that prevented them from transferring assets out of the country due to a banking crisis caused by the Greek debt crisis. In fact, deposits greater than EUR100,000 in Cyprus's then largest bank, Bank of Cyprus, were seized. Also, to receive and maintain a permanent residence permit in Switzerland, an applicant is expected to pay at least CHF250,000 in lump-sum tax annually.

This section will use the family extended balance sheet as a framework to identify and mitigate exchange rate risk with appropriate strategies.

Exchange Rate Risk in the Family Extended Balance Sheet

What makes a family wealthy is the fact that the surplus of its real and financial assets over its projected liabilities is comfortably large. Earlier, we used the family extended balance sheet to identify risks associated with human capital and investment goals assuming a single currency. It can also highlight exchange rate risk.

Given their global footprint and diverse income and expense streams, wealthy families face increased complexity when it comes to currency decisions. The impact of currency mismatches on the management of assets and liabilities (objectives) can be very damaging, especially over the long run. Consider the relatively simple example of the Hemmingworth family, an American family that resides in Germany.

- Chris Hemmingworth, the father, is an executive at a German lubricant manufacturer. He is paid in euros, and the mortality-adjusted present value of his human capital is EUR7 million. At the current USD1.10/EUR exchange rate, the present value of his human capital expressed in US dollars is USD7.7 million.
- Jennifer Hemmingworth, his spouse, cares for their three children. The family plans to reside in Germany for the duration of Chris's employment (i.e., until he retires) and spends about EUR100,000 per year to maintain their current lifestyle, representing a probability-weighted present value of EUR800,000, representing USD880,000 at today's exchange rates.
- The family owns residential real estate worth EUR500,000 with a EUR200,000 mortgage, or USD550,000 and USD220,000 expressed in US dollars, respectively.
- The family holds cash of USD50,000 and EUR100,000 as well as investments, USD1.5 million are denominated in US dollars and EUR1 million are denominated in euros.
- The couple intends to send their children to school in the United States at an estimated present value of USD900,000.
- The couple plans to retire in the United States. The longevity-adjusted present value of their retirement spending needs is USD5 million.

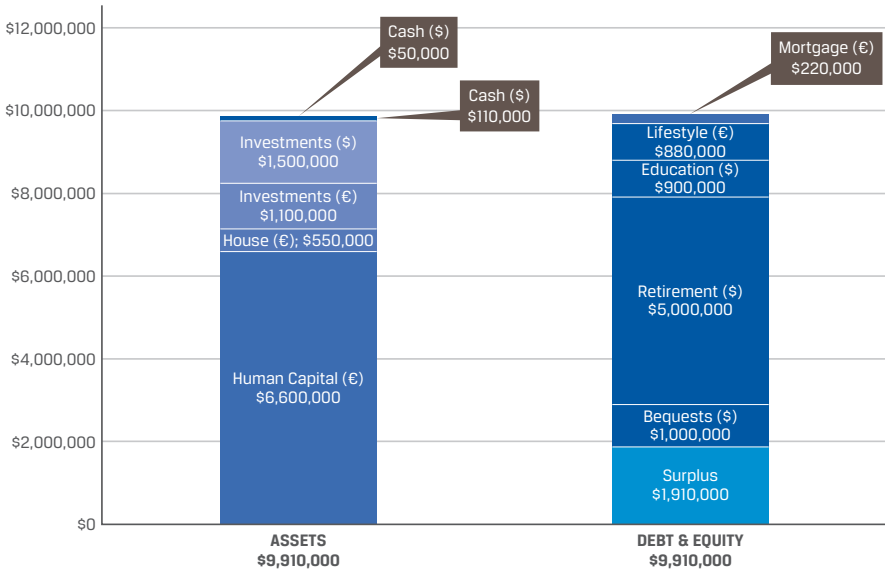
- The couple also intends to pass on USD1 million in bequests and charitable donations upon their death.

This information can be summarized as:	Value in EUR	Value in USD Exchange rate is EUR1.10/USD
Chris Hemmingworth		
Human capital	7,000,000	7,700,000
Jennifer Hemmingworth		
Annual lifestyle expenditure	100,000/year	
Total expenditure until retirement	800,000	880,000
Residential real estate		
Property value	500,000	550,000
Mortgage on property	200,000	220,000
Family financial assets		
Cash on hand	100,000	50,000 + 110,000
Investments	1,000,000	1,150,000
Future expenses		
Children's education in the United States		900,000
Retirement spending needs		5,000,000
Bequests and charitable donations		1,000,000

Exhibit 38 displays the Hemmingworth extended family balance sheet denominated in US dollars. Notice that, although the present value of Chris Hemmingworth's earnings stream is denominated in euros and noted accordingly in the labeling of that entry, its value is expressed in the equivalent amount of US dollars. The currency noted in parentheses is the currency in which the asset, liability, or surplus is denominated, called the *base currency*. All entries on the balance sheet must be denominated in the same currency, however, to allow the entries to be added and subtracted and, hence, the balance sheet to balance.

One can theoretically choose any currency, even one other than the US dollar or euro. We chose to denominate the entries in US dollars because the bulk of the Hemmingworth's investment goals (such as retirement) are denominated in US dollars. This can be known as the *price currency*, or the reference currency. Their inherent risk is the fluctuation of the exchange rate between the base and the price currency during the period of wealth accumulation that is to defray their retirement and education objectives all in the United States and denominated in US dollars.

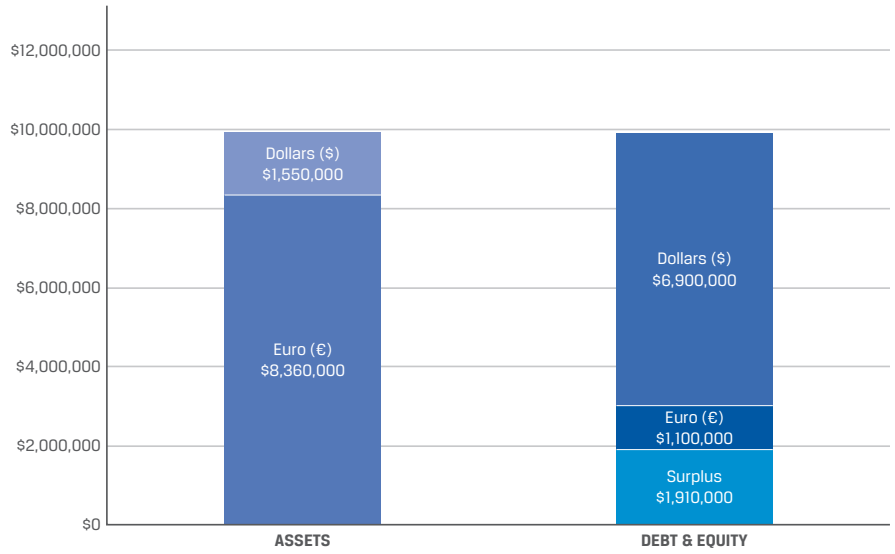
Exhibit 38: The Hemmingworth Family Extended Balance Sheet



Displaying the family balance sheet in this way reveals currency mismatches between assets and liabilities. The risk of that mismatch is compounded by exchange rate volatility. If we consolidate all the dollar-denominated assets into one category and all the euro-denominated assets in another (and similarly consolidate the liabilities by currency) and express them all in the same currency as we have done in Exhibit 39, we see currency risks. The USD1.55 million of dollar-denominated assets offsets only a small portion of the currency exposure of the dollar-denominated liabilities and surplus (USD6,900,000 + USD1,910,000 = USD8,810,000).

The bulk of the Hemmingworths' assets (USD8.36 million) are denominated in euros, which more than offsets the currency exposure of the USD1.1 million worth of euro-denominated liabilities, including their mortgage and lifestyle. In other words, the Hemmingworths are long euros and short US dollars. They have a USD7.26 million mismatch in their euro exposure (i.e., USD8,360,000 – USD1,100,000).

Exhibit 39: The Hemmingworth Family Extended Balance Sheet Expressed in Terms of Currency Exposure



Should the euro depreciate relative to the US dollar, the Hemmingworths would suffer a loss of their surplus at least; the magnitude of the loss depends on the size of the depreciation. In general, the decline in net assets equals

$$\textit{Net Asset Decline} = \textit{Return}_{\textit{Base Currency}}\left(\textit{Assets}_{\textit{Base Currency}} - \textit{Liabilities}_{\textit{Base Currency}}\right),$$

where

$\textit{Return}_{\textit{Base Currency}}$ = the percentage change in the exchange rate of the base currency expressed in terms of price currency (i.e., $S_{t,Price/Base}/S_{t-1,Price/Base} - 1$),

$\textit{Assets}_{\textit{Base Currency}}$ = the amount of assets denominated in the base currency expressed in terms of price currency, and

$\textit{Liabilities}_{\textit{Base Currency}}$ = the amount of liabilities denominated in the base currency expressed in price currency units.

For clarity, the return to the base currency can be expressed as the percentage change in the base currency spot price. Using euros as the base currency and US dollars as the price currency, the spot price of the euro at time t can be expressed as $S_{t,USD/EUR}$. The return to the base currency is then $S_{t,USD/EUR}/S_{t-1,USD/EUR} - 1$, where $S_{t,USD/EUR}$ is the spot price of euro expressed in US dollars. If the assets denominated in the base currency equal the value of the liabilities denominated in the base currency, the family has no risk exposure to the exchange rate between the base currency and price currency.

For the Hemmingworths, euros are the base currency, and US dollars are the price currency, or currency in which most of their consumption is based. A 10% depreciation in the euro relative to the US dollar, for example, would decrease the Hemmingworths' surplus by USD726,000 (i.e., 0.10 × [USD8,360,000 – USD1,100,000]), or about a third of their surplus. If the depreciation is severe enough (e.g., 30%), it could deplete their

surplus entirely. Over long time horizons, such exchange rate movements are not uncommon. Since the euro was introduced in 1999, its value in US dollars has ranged from as low as USD0.84 to as high as USD1.58.

Annual exchange rate changes of more than 15% are not unusual.

The wealth manager could recommend several hedging strategies outlined elsewhere in the curriculum to offset the pre-existing long exposure to the euro and short exposure to the US dollar.

A passive hedging strategy would seek to insulate the Hemmingworths from all currency risk, perhaps by shorting euro/US dollar forwards or futures in a notional amount equal to the euro-denominated currency mismatch. This strategy involves a hedge ratio of one and requires active rebalancing to ensure the notional hedge exposure equals the currency mismatch as values of the assets and liabilities evolve over time. Using futures contracts involves relatively short-term transactions, the advantage of which is generally good liquidity and low cost.

Hedging covers exposures for short to medium term but does not provide long-term currency hedging. Utilizing a rollover strategy, in which the hedge transitions to the next longest-dated contract as the current one nears its end, incurs higher transaction costs and introduces rollover risk. This risk involves potential interim losses on expiring contracts. Systematically rolling over shorter maturities can also diminish capital. Opting for longer maturities may be costlier due to maturity decay and could subject the investor to less favorable tax treatment on short-term trades, further diminishing the net benefits of hedging. The wealth manager may be able to negotiate longer term tenors on a forward contract with a private bank or other financial institution as counterparty. This strategy would reduce rollover risk, but at the expense of lack of liquidity and counterparty risk, and due to the bespoke nature of the transactions and its relatively small size, the cost of such an arrangement may be high.

Rather than a purely passive currency overlay strategy, the wealth manager may alternatively suggest a discretionary hedging strategy designed to keep the hedge ratio within a bound, say 90%–110% of the mismatch. Whatever the strategy, the exposure should be assumed knowingly. Moreover, whether implemented in the markets or negotiated privately, such a strategy can be costly.

The wealth manager may instead use a carry trade strategy rather than forwards or futures. In the Hemmingworths' case, for example, the wealth manager could borrow euros (to offset the pre-existing long exposure to the euro) and invest in US dollars (to offset the pre-existing short exposure to the US dollar). This offers a natural hedge to their long-term US dollar exposure, minus the transactions costs involved in implementing the hedge.

Another alternative is to seek investments in Germany that are priced in euros but exclusively invest in US dollar–denominated assets, such as ETFs and mutual funds investing solely in the United States, US markets, or other US dollar–denominated assets. An additional benefit of this approach is that the asset allocation and portfolio selection can be implemented to reflect US dollar–denominated future liabilities. There are certain institutional problems with this approach, such as the custody and transfer of assets in the accounts, but an offshore wealth manager could bridge some of these concerns.

The Reference (or Price) Currency

The usual practice of wealth management relies on defining the reference currency in which liabilities and financial objectives are denominated, which is usually taken to be the currency of the investor's country of residence or sometimes, for lack of a more compelling alternative, the US dollar as in the simple example above. However, many wealthy families with a global footprint have liabilities and financial objectives in multiple currencies.

Although the US dollar has traditionally been considered the reserve currency of the world and often used as the standard reference (or price) currency, its status as the world reserve currency can change. Moreover, even if the family's reference currency is unambiguously denominated in a single currency, such as the US dollar, its currency risk exposure may not entirely be inoculated by holding assets in that currency. As we have discussed above, the price of luxury goods shows different price dynamics than general inflation measured by CPI. If a family's consumption basket is weighted toward these luxury goods, the US dollar, even after correcting for inflation with the CPI, is a poor store of value over the medium or long term when measured against the objective of maintaining a wealthy lifestyle.

The challenges that the external environment poses to the management of currency risk can be summarized by the following:

1. Any single fiat currency is unlikely to serve as a reliable store of value under all possible future scenarios because the cost of maintaining a wealthy lifestyle increases faster than inflation.
2. There is an imbalance between world GDP, in which developing countries play an increasing role, and the universe of investable assets, which is concentrated in developed countries.
3. There are likely future scenarios in which access to the US dollar payment system could be restricted or denied because of political reasons.

Additionally, financial institutions serving US clients or clients with financial interests in the United States may require a complex client onboarding process to satisfy know your customer (KYC) standards, stringent compliance reports on the client and source of funds, and their transactions may have to be reported to US authorities.

Factors that are inherent to wealthy families include the following:

1. Wealthy families have a mission to preserve wealth in terms of real purchasing power for future generations.
2. Wealthy families continue to become more global in their outlook, revenues, expenses, and financial objectives.
3. The liabilities of a wealthy family, which consist mainly of financial objectives, cannot be defined with the same precision as, for example, those of a pension fund. In fact, although these liabilities or objectives can be assessed, they generally cannot be quantified as a precise cash flow in any given currency.
4. Wealthy families can live in multiple places throughout a year, which increases their currency risk.

The interplay between external challenges and the fact that liabilities cannot be modeled with any degree of certainty makes currency hedging challenging. To hedge, the wealth manager may instead use a customized basket of currencies that better represents liabilities and financial objectives for wealthy families with a global footprint. If the currency exposure of liabilities and objectives is known, the optimal reference would be a currency basket with weights corresponding to those liabilities and objectives. In the rather unlikely case that liabilities and objectives are confined to a single currency, that single currency would be the reference currency.

In many cases, however, the currency exposure of financial objectives may not be known. The globally mobile wealthy family may want to preserve its global purchasing power, in which case the wealth manager can use a currency index with weights based on some other macroeconomic factor, such as GDP. The US Dollar Index, for example, is a basket of six currencies (the euro, Japanese yen, British pound, Canadian dollar, Swedish krona, and Swiss franc). The weights, with the euro being the largest component of the index (almost 60%), are based on the relative appreciation or

depreciation of these currencies since the base established in 1973 after countries abandoned the gold standard. One could also use a more comprehensive reference currency with weights based on GDP for each country, adjusted for purchasing power parity, such as the Global Reserve Currency Index. Alternatively, one could imagine a customized reference currency index based on a representative sample of currencies in which a family's liabilities and objectives might potentially be denominated even if not known with certainty.

Importantly, a currency basket should not be viewed as tactical, thereby requiring monitoring short-term performance with respect to the US dollar, or any other currency. In fact, the currency basket corresponding to the liabilities and objectives is the ultimate unit of account against which returns should be measured. Adopting a currency basket index, especially when implemented through a currency overlay approach, offers two important advantages:

1. Asset allocation decisions can be made independently of the chosen currency basket because the currency exposure is achieved through the overlay and not through asset allocation.
2. Currency allocation becomes more disciplined and systematic.

QUESTION SET

1. Apart from investment diversification, describe two reasons that a client may choose to locate assets or liabilities in a foreign jurisdiction.

   Solution:

   The rationales for locating assets and/or liabilities in different jurisdictions include utilizing jurisdictions with favorable (low-tax) taxation regimes; protecting assets from inflation or currency devaluations; protecting against third-party legal and financial claims; and protecting against government confiscation.

2. When developing an extended balance sheet for a family who is currently working abroad and has assets denominated in multiple currencies, assets and liabilities on the balance sheet should be presented in:

   A. the family's home currency.

   B. the respective currencies of each asset and liability.

   C. the currency in which the majority of the family's liabilities are denominated.

   Solution:

   Answer C is correct. For the balance sheet to balance, all assets and liabilities must be presented in the same currency. It makes sense for this currency to be that in which most of the liabilities are denominated, as these represent the family's goals and currency fluctuations could limit the family's ability to meet them.

3. An individual residing in Australia uses a trust located in an offshore financial center to invest in office buildings located in New York City. Which of the following reasons best justifies use of the trust?

   A. Tax efficiency

   B. Asset protection

C. Currency risk mitigation

Solution:

Alternative A is correct. Offshore financial centers may offer more favorable tax regimes, such as low capital gains taxes. The structure does not affect the currency the asset is denominated in, and the United States has strong legal protections, making the other choices less plausible.

4. An ultra-high net worth family is based in Saudi Arabia and has assets and liabilities in multiple jurisdictions, with the United States accounting for the largest portion at 40%. Which of the following is the most appropriate reference currency for this family?

A. The US dollar

B. The Saudi riyal

C. A basket of currencies

Solution:

Alternative C is correct. The globally mobile wealthy family may want to preserve its global purchasing power, in which case the wealth manager can use a currency index with weights based on a macroeconomic factor, such as GDP, or a customized reference currency index based on a representative sample of the currencies in which the family's liabilities and objectives are denominated.

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PRACTICE PROBLEMS

The following information relates to questions 1-4

Wayne and Laura Hirsch are both 50 years old and have two children attending college. Wayne is a managing director at an investment management firm. He earns USD500,000 per year in base salary and variable compensation that typically runs from 100%–200% of base salary but can be zero in market conditions that occur approximately 10% of the time. In normal conditions, his job is secure, but a prolonged slump would reduce not only his annual compensation but his attractiveness as a candidate for similar positions. Until the children entered college, Laura served as the primary caregiver, but now that they are in college, she has accepted a job as a bookkeeper paying USD50,000 per year. Their effective income tax rate is 35%.

Wayne's father died of a heart attack at age 65, and his mother suffered a stroke at 70. Wayne is overweight and has high blood pressure and high cholesterol levels. Laura's parents lived into their 90s. She exercises regularly and is in very good health.

The couple has a fully funded investment portfolio designated for their children's college expenses. They also own their home and have a USD2 million investment portfolio expected to yield a 6% nominal annual return. Their yearly living expenses amount to USD250,000. The risk-free rate is 4%, and the expected annual inflation rate is 2%.

Influenced by a friend whose parents faced financial difficulties in old age, Wayne and Laura are committed to financial security. They plan to save all after-tax income beyond their annual living expenses until their portfolio reaches at least USD8 million. They are open to working past 65 and have enlisted the services of wealth advisor Mark Edwards for financial planning.

1. Use the following template to assess Wayne's human capital risk and how these impact the risk tolerance of his financial portfolio.

	Wayne's human capital risk	Impact on portfolio risk tolerance
Earnings volatility		
Earnings correlation		
Replaceability		

2. When estimating their retirement spending needs, Edwards should discount their annual spending requirements at:

A. 2%

B. 4%

C. 6%

3. The probability of ruin is:

A. greater for Laura.

B. greater for Wayne.

C. the same for both spouses.

4. A disadvantage of the Hirsches' goal for their retirement portfolio is that it:

A. results in a lower safety reserve.

B. deprives them of the full benefit of their assets.

C. exposes them to greater sequence-of-returns risk.

The following information relates to questions 5-7

Mark Edwards is a wealth advisor working with Wayne and Laura Hirsch. Wayne is the managing director of an investment firm and his earnings range from USD500,000 to USD1.5 million per year before tax. Laura works as a bookkeeper, earning USD50,000 before tax. Their tax rate is 35%, and they have expenses of USD250,000 annually. They have two children in college, with college expenses fully covered by a separate investment plan. They also have an investment account valued at USD2 million that primarily holds investment-grade bonds due to the high correlation between Wayne's income and the equity market.

Wayne has a term life insurance policy with a face value of USD5 million. Now that his children are in college, he is considering reducing the amount of coverage. Edwards calculates his insurance needs based on the human life value method using the following assumptions:

- USD500,000 pre-tax income
- 35% tax rate
- USD25,000 non-taxable employee benefits
- USD50,000 expenses attributable to Wayne
- 3.0% expected growth in income
- 4.5% discount rate
- 15 years to retirement
- Non-taxable life insurance proceeds

The Hirsches aim to accumulate a minimum of USD8 million in their investment portfolio by retirement to safeguard against outliving their savings. They intend to maintain a low initial withdrawal rate for regular expenses and to account for unforeseen expenditures. Currently, they invest all new savings in the longest-date bonds available. However, as Wayne nears retirement and his earning potential decreases, they plan to shift their investment focus toward equities.

Upon learning that his annual bonus will be USD1 million, Wayne consults Edwards for investment alternatives to bonds. Edwards suggests that the after-tax amount of USD650,000 could be used to buy an annuity. This annuity would provide annual payments of USD72,000 starting at age 65 and continue until the second spouse passes away. Laura questions the annuity's higher returns compared to the 4.5% yield on bonds.

5. Based on the human life value method, Wayne's life insurance needs are *closest*

to:

A. USD4.0 million.

B. USD5.5 million.

C. USD6.5 million.

6. The Hirsches' current strategy for dealing with longevity risk is *best* described as:

A. a bond ladder.

B. volatility control.

C. a dynamic withdrawal program.

7. Provide 3 reasons why the annuity proposed by Edwards offers higher payments than the yield on bonds.

The following information relates to questions 8-10

François Dubois serves as a wealth manager for Lukas Müller and Sophia Schneider, providing financial advisory services. Lukas and Sophia have two financially independent adult children and are about to retire and move to an area with a lower cost of living. They have a house valued at CHF1.2 million and CHF2 million in a tax-deferred retirement account holding a 60/40 portfolio of equities and bonds. They also have an equity investment valued at CHF1 million that is held in a taxable account. When they relocate, they plan to sell their home and spend CHF600,000 to purchase a new one.

Recently, households and firms have begun to believe that future prices will be higher and have been adapting their behavior accordingly. Lukas and Sophia are concerned about the potential for inflation to erode their income and assets during retirement.

The CHF1 million equity investment was originally purchased five years ago for CHF200,000. During the time they have owned it, inflation has averaged 3.0% annually and capital gains taxes are 20%. They intend to invest the proceeds from selling the shares in an annuity that has annual adjustments based on the CPI and will provide 40% of their expected spending requirement. Pensions will provide an additional 35% of their expected spending needs and are also indexed to consumer prices. Dubois advises them that this may still leave them exposed to inflation risks.

8. The type of inflation recently experienced is *best* described as:

A. cost-push inflation.

B. demand-pull inflation.

C. unanchored inflation expectations.

9. The real, after-tax annual return on Lukas and Sophia's equity investment is *closest* to:

A. 27%.

B. 29%.

C. 30%.

10. Justify, with two reasons, Dubois's assertion that Lukas and Sophia remain exposed to inflation risks.

The following information relates to questions 11-13

Arnie Nmabe, a 55-year-old executive at a prominent energy company, lives in London with his wife, Sarah (48), and their daughter Rose (15). Arnie plans to retire in three years, and the family intends to relocate to Canada, where Rose will attend college.

The current exchange rate is CAD1.25/GBP.

They have provided the following details to Farad Mohammed, their wealth manager.

Cash (CAD)	CAD120,000
Cash (GBP)	GBP250,000
Education for Rose (PV)	CAD500,000
Home mortgage	CAD1,000,000
Home value (retirement)	CAD1,500,000
Human capital	GBP4,000,000
Investments (CAD)	CAD500,000
Investments (GBP)	GBP375,000
Living costs until retirement	GBP350,000
Retirement spending, expected PV	CAD3,500,000
Retirement spending needs reserve	GBP2,500,000
Target trust bequest to Rose (PV)	CAD4,000,000

Mahommed develops an extended balance sheet for the family and considers their currency exposures.

11. Formulate the family's extended balance sheet in the appropriate currency.

12. How would the Nmabe's surplus be affected if the exchange rate changes to 1.20 CAD/GBP?

13. Describe two ways that the Nmabes could reduce their currency exposure.

The following information relates to questions 14-17

Billy Young, a 35-year-old EU citizen residing in the United States, possesses a substantial intellectual property (IP) portfolio related to semiconductor technology. In addition to his IP assets, he holds a diverse range of liquid and non-liquid assets, including commercial real estate, equities, fixed income investments, and

private equity holdings.

Recently, Mr. Young has been embroiled in business disputes with former partners that are expected to escalate into legal battles. He also faces a personal lawsuit alleging negligence that resulted in injury to another person. Although he is confident in his ability to prevail in court, he remains concerned about the potential financial risks associated with these legal challenges.

In response to these concerns, Mr. Young's wealth advisor and legal counsel have recommended exploring various Offshore Financial Center (OFC) options as a means of safeguarding his assets and minimizing fiscal risk.

14. Formulate the top considerations for Mr. Young as he considers an OFC.

15. Generally speaking, which of the following types of legal structure would Mr. Young probably need to establish, assuming that the OFC selected is a common law country?

A. Corporation

B. Irrevocable Trust

C. Limited Company

16. Formulate steps a prudent wealth advisor should recommend to help Mr. Young maximize the benefits from his anticipated multi-million US dollar income resulting from the contract with the Japanese corporation?

17. Which tax system would be most advantageous for Mr. Young when choosing a new country to live in, assuming tax rates remain constant?

A. Residence Jurisdiction

B. Source Jurisdiction

C. No preference due to constant tax rates

SOLUTIONS

1.

	Wayne's human capital risk	Impact on portfolio risk tolerance
Earnings volatility	The significant variable element of Wayne's compensation indicates very high earnings volatility.	The financial portfolio should be overweight assets with low volatility.
Earnings correlation	Wayne's compensation is highly correlated with financial market returns.	The financial portfolio should have limited exposure to stocks and higher exposure to bonds, commodities, or real estate.
Replaceability	Replaceability is low, as the same conditions that would result in a loss of his current job would make it more difficult to secure a new one.	There should be a significant safety net allocated to cash or short-term government bonds.

2. A is correct. "Spending needs are discounted at the real risk-free rate, which aligns with the risk profile of these cash flows." In this case, 4% – 2% = 2%.

3. A is correct. The probability of ruin is the likelihood that an investor will deplete their financial assets before meeting a specific financial obligation or goal, including sustaining spending throughout retirement. Longevity risk directly amplifies the probability of ruin by requiring individuals to stretch their retirement savings over an uncertain and potentially longer lifespan, making it more likely that they will run out of money. Laura has greater longevity risk than Wayne given her better health and genetics (her parents lived to older ages than Wayne's. Even without these differences, the average life expectancy is higher for women than for men. All of these contribute to greater probability of ruin for Laura than for Wayne.

4. B is correct. With an USD8 million portfolio, the implied withdrawal rate is 3.125%, which is quite low. It provides a significant safety net and their willingness to work past age 65 attenuates sequence-of-returns risk. However, such a high savings rate and low withdrawal rate represent foregone opportunities to enjoy the fruits of their labor. "Minimizing longevity risk involves avoiding both over-saving and under-spending, as each could prevent a client from fully benefiting from their assets."

5. A is correct. Insurance needs under the human value life method can be estimated as an annuity due with 15 payments and a net discount rate of 1.045/1.030 = 0.015, or 1.5%. The payment is USD500,000 – USD175,000 taxes + USD25,000 benefits – USD50,000 expenses = USD300,000. The resulting present value is USD4.06 million.

6. B is correct. The gradual shift toward equities as retirement approaches can be considered dynamic asset allocation, a form of volatility control. "Increasing equity exposure during retirement can enhance sustainability. Holding more cash or fixed income early on in retirement mitigates the impact of poor early returns, thus reducing longevity risk." Dynamic withdrawal rates relate more to changing the withdrawal rate during retirement based on market conditions, while a bond

ladder attempts to match interest payments and maturing bonds to retirement spending needs.

7. There are three reasons that the annuity payment can be higher than the current rate on bonds.

   1. Payments do not begin for 15 years, during which time the initial payment for the annuity can grow to a much larger amount.

   2. When the payments do begin, they will include a repayment of principal in addition to interest payments.

   3. Annuitants who live longer than expected receive "mortality credits," which are essentially a subsidy provided by annuitants who die earlier than expected.

8. C is correct. The situation in which households and firms start to believe that future prices will be higher (or become unanchored) and adapt their behavior accordingly is described as unanchored inflation expectations.

9. B is correct. The proceeds from the sale are CHF1 million – (CHF1 million – CHF200,000) × (0.2) = CHF840,000. The inflation-adjusted cost basis is CHF200,000 × $(1.03)^5$ = CHF231,855. Solving for *r* with present value (PV) CHF231,855; n = 5; and future value (FV) = CHF840,000 yields a return of 29.39%.

10. Reasons that Lukas and Sophia remain exposed to inflation include:

    - The annuity and government pensions cover only 75% of their expected spending needs. The remaining 25% may be exposed.
    - Their experienced inflation may not be well represented by CPI. For example, senior citizens tend to spend a higher-than-average portion of income on healthcare, which has experienced above-average inflation levels in the past.
    - Their financial portfolio of stocks and bonds has historically been negatively correlated with inflation.

11. Given that the family plans to relocate to Canada for retirement and their financial commitments will largely be in Canadian dollars, Canadian dollars should be chosen as the base currency. To construct the family's balance sheet and calculate their surplus, each asset (A) and liability (L) is aligned with the chosen base currency.

	Amount	A/L	Asset (in CAD)	Liability (in CAD)
Cash (CAD)	CAD120,000	A	120,000	0
Cash (GBP)	GBP250,000	A	312,500	0
Education for Rose (PV)	CAD500,000	L	-	500,000
Home mortgage	CAD1,000,000	L	-	1,000,000
Home value (retirement)	CAD1,500,000	A	1,500,000	0
Human capital	GBP4,000,000	A	5,000,000	0
Investments (CAD)	CAD500,000	A	500,000	0
Investments (GBP)	GBP2,875,000	A	3,593,750	0
Living costs until retirement	GBP350,000	L	-	437,500
Retirement spending, expected PV	CAD3,500,000	L	-	3,500,000

	Amount	A/L	Asset (in CAD)	Liability (in CAD)
Target trust bequest to Rose (PV)	CAD4,000,000	L	-	4,000,000
Total			11,026,250	9,437,500
Surplus (A-L)				1,588,750

12. First, we need to determine the net exposure to British pounds.

	Amount	A/L	Asset (in CAD)	Liability (in CAD)
Cash (GBP)	GBP250,000	A	250,000	0
Human capital	GBP4,000,000	A	4,000,000	0
Investments (GBP)	GBP375,000	A	2,875,000	0
Living costs until retirement	GBP350,000	L		350,000
Total			7,125,000	350,000
Net GBP exposure			6,775,000	

Therefore, they have a British pound net position of GBP6,775,000. Currently, this is worth CAD8,468,750. If the rate changes to 1.20 GBP/CAD, this will go down to GBP8,130,000—or a change of –CAD338,750. Their surplus would drop by 338,750 or 21%.

13. The family's substantial exposure to British pounds is primarily influenced by the significant human capital and the GBP2.875 million in locally denominated investments. One way to mitigate this exposure would be to replace their GBP investments with CAD ones or to hedge their currency exposure using futures contracts. Another option is to secure a British pound loan and invest the borrowed funds in CAD-denominated investments.

14. Asset protection is the primary objective for Billy Young in considering OFCs.

    1. *Legal barriers*: OFCs can create a legal barrier that can protect an individual's assets from potential legal claims, making it difficult for creditors or litigants to access them. However, this protection is not absolute; courts in the individual's home country may still exert jurisdiction.
    2. *Asset transfer*: Transferring assets to an OFC requires legal and transparent procedures. Failure to comply with the laws of both the home country and the OFC can lead to severe legal repercussions.
    3. *Tax benefits*: OFCs often offer tax benefits such as lower rates, exemptions, or deferred taxation. However, an individual's tax obligations are usually still governed by their home country's laws, necessitating careful tax planning and compliance.
    4. *Privacy*: Privacy laws in many OFCs safeguard financial information, although this is increasingly subject to international transparency requirements.
    5. *Investment management*: OFCs also offer diverse investment opportunities and financial services. Asset diversification across jurisdictions can mitigate risk and potentially improve returns, but investment choices should align with the individual's financial objectives and risk tolerance.

15. B is the correct answer. An Irrevocable Trust is the most suitable legal structure

for Mr. Young in an OFC under a Common Law framework. While corporations offer limited liability and separate legal personality, they don't provide sufficient asset protection from legal claims. Similarly, Limited Companies (LLCs) offer limited liability but still consider assets as belonging to the company, lacking the desired asset isolation. An Irrevocable Trust effectively shields Mr. Young's assets from potential legal claims by transferring ownership to the trust for the benefit of specified beneficiaries.

16. As a non-US citizen but resident alien, Mr. Young is taxed on global income; relocating to a tax-favorable jurisdiction could significantly boost his net wealth. The advisors should focus on first efficient tax planning through international strategies and exploiting tax treaties. Asset protection via offshore trusts or entities to shield against legal claims and creditors need to be considered. Additionally, customized financial planning tailored to Mr. Young's objectives and risk tolerance needs to be addressed. Finally, considerations for estate planning, covering wills, trusts, and legal frameworks for smooth asset distribution and generational wealth transfer need to be discussed.

17. B is the correct answer. In choosing a new country of residence, Mr. Young's optimal tax system—either Residence Jurisdiction or Source Jurisdiction—depends on several factors, such as his non-US citizenship, EU citizenship, and the assumption of stable tax rates. In a Residence Jurisdiction, he would be taxed on his worldwide income in both the United States and his new residence. This includes income from all sources, not just the United States. Under Source Jurisdiction, taxation focuses on the income's origin. In the United States, this means taxing only income earned within the country, regardless of Mr. Young's citizenship. Income earned outside the United States may escape US taxation. Given constant tax rates in both countries, the choice between these systems isn't clear-cut. Source Jurisdiction might offer tax advantages, but that depends on various intricate factors. While constant tax rates don't tilt the balance toward either system, a detailed analysis of tax exposures is essential. Consulting international tax experts is crucial for an informed decision, although Source Jurisdiction could be more beneficial in Mr. Young's case.

LEARNING MODULE

6

Advising the Wealthy

LEARNING OUTCOMES

Mastery	*The candidate should be able to:*
☐	discuss and recommend appropriate citizenship, nationality, and legal residency approaches for private clients
☐	discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of complex family situations
☐	discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of entrepreneurs and business owners
☐	discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of professionals, executives, and others

INTRODUCTION

1

This sixth reading covers some of the challenges high-net-worth individuals and their wealth managers often face, ranging from dual citizenship and global family considerations to managing concentrated asset positions like large privately-owned businesses.

Citizenship plays a pivotal role in determining an individual's legal obligations, including tax liabilities. Affluent individuals frequently opt for dual citizenship or invest in countries offering residency and citizenship to secure long-term stability for themselves and their families. Legal frameworks worldwide have a profound impact on how assets are disposed of and estates planned. Due to potential jurisdictional conflicts and opportunities for optimizing tax through gifting, tax planning is an important consideration.

Additionally, entrepreneurs, business owners, and executives often encounter unique challenges stemming from their wealth being tied to, or concentrated in, one or a few enterprises. This reading will provide an in-depth examination of strategies to mitigate risks and monetize such concentrated positions of wealth. It will also touch upon the psychological biases that influence investment choices as well as issues related to family conflict resolution and succession planning.

LEARNING MODULE OVERVIEW

- Citizenship establishes an individual's legal relationship with a specific country, encompassing rights, duties, and responsibilities. Citizenship can be acquired at birth or through descent, naturalization, or marriage. An individual may hold citizenship in multiple countries.
- Tax obligations of an individual in a country may be based on the income earned or received within that country, the residence of the income earner in the country, or the citizenship of the individual.
- Conflicts can occur between different tax systems in which each country seeks to tax income. Such double taxation issues can be resolved through unilateral foreign tax credit provisions or double taxation treaties (DTTs).
- People can renounce citizenship for different reasons, such as obtaining citizenship in a country that prohibits dual citizenship or tax reasons.
- Countries often charge an "exit tax" on citizens who renounce citizenship to compensate for lost tax revenue. A similar tax applies to those who change their tax jurisdiction in the same country.
- There are several countries that offer residency through investments.
- Different countries have unique legal frameworks, including civil law, common law, and Shari'a law, which affect wealth planning and the ownership transfer and disposition of assets between family members. International families encounter specific challenges in creating and recognizing legal documents across borders, including marriages and wills.
- Key considerations in wealth planning around a divorce includes asset protection, fair property division, and financial stability.
- Asset division can be influenced by various factors, such as community property versus separate property, prenuptial and postnuptial agreements, property types like real estate, fund commingling, and forced heirship rules.
- Cohabitating couples in separate property systems and same-sex couples in non-recognizing countries lack the benefits available to traditional couples. Legal agreements can offer clarity and protection for both parties.
- The main methods for transferring asset ownership in families are lifetime gifts and bequests in wills. Often, tax considerations influence the choice of legal avenues transferring wealth.
- Utilizing tax-free gifts under periodic or lifetime exemptions can reduce estate tax, particularly if planned early. Tax-efficient gifting strategies also exist when gifts are taxed, especially if the donor pays the gift tax.
- Business owners often have most of their net worth in their companies, making them asset rich but cash poor. Such a concentrated position in a privately held or publicly traded business is exposed to many risks, including systematic risk, unsystematic risk, liquidity risk, and, potentially, property-specific risk.

- Owners of concentrated positions and their advisers need to address unique challenges in managing a concentrated position: tax implications from selling, lack of easy cash conversion, and mental biases.
- Owners of concentrated positions often aim to liquidate a portion for risk diversification or to completely exit from the business. In closely held companies, existing shareholders usually lack the liquidity to purchase additional shares and facilitate the monetization of another owner's stake.
- Owners of concentrated positions and their advisers typically mitigate both the overall risk and the company-specific risk and create the liquidity that the owner seeks. Investment objectives for such concentrated positions have implications for taxes and wealth transfer.
- Owners of concentrated positions and their advisers can employ goal-based planning to determine if selling or monetizing a concentrated position could achieve financial independence.
- Selling a closely held business can result in different valuations based on the type of acquirer. Strategic buyers, who seek business, commercial and similar synergies, may offer higher prices than financial buyers. Employee or management buyouts (MBOs) are an option, but they often require the seller, the previous owners, to finance at least part of the purchase.
- Equity monetization turns an ownership stake into cash without an outright sale, often avoiding the immediate payment of taxes, and includes taking out a line of credit, total return equity swaps, and prepaid variable forwards.
- There are often several economically equivalent ways to hedge or monetize a concentrated ownership position. Tax regimes governing the taxation of financial instruments differ, which impacts after-tax wealth. Investors can reap substantial tax savings or reduce tax risk by selecting and implementing the form of a transaction that delivers the optimal tax result.
- Managing a large stake in a family business goes beyond investments. Conflict in wealthy families can be managed by agreeing on shared values and responsibilities. Advisers should also help with succession planning and post-sale family dynamics.
- To hedge a large investment in a single stock, there are two main alternatives: exchange-traded options and futures and over-the-counter (OTC) options, forward sales, or swaps. Each alternative has its own benefits and drawbacks.
- Athletes and entertainers require tailored wealth management solutions to accommodate their brief, high-earning careers and prolonged retirements.

MULTIJURISDICTIONAL FAMILIES

2

☐ discuss and recommend appropriate citizenship, nationality, and legal residency approaches for private clients

In today's increasingly integrated world, family members often reside in multiple countries for personal, health, political, or professional reasons. Executives and employees of multinational companies may work abroad temporarily or permanently. People may emigrate to seek better opportunities, sometimes without plans to return home. Children may study and work abroad; families may own overseas properties or businesses. This international lifestyle offers many advantages but also complicates wealth management, particularly in tax planning. Wealth managers and other financial experts help their clients navigate some of the complex income, asset, wealth, and transfer considerations.

Within international private wealth management, understanding the intersection between citizenship, residency, and individual tax situations is critical. While taxation and citizenship often align, alternatives exist in which they operate independently, and there are tools that allow individuals to change their residency.

Citizenship is valuable, particularly in countries with political, economic, and social stability. Moreover, some countries offer unique tax benefits, such as low taxation on certain types of income. For example, some countries tax only their residents, regardless of citizenship, whereas others tax their citizens no matter where they reside. Additionally, certain countries actively attract financial capital by offering favorable residency and tax conditions, including clear double taxation rules and even the option of acquiring citizenship for those with substantial financial resources.

External factors dynamically influence these scenarios; countries and states vie to attract desirable taxpayers through varied tax incentives.

Systems of Citizenship

Citizenship establishes the legal relationship between a person and a state, conferring various rights, duties, and responsibilities. Country-specific citizenship rules can complicate determining family members' rights to passports, residency, employment, voting, and traveling visa-free across borders. Citizenship impacts tax, asset protection, and inheritance laws. Acquiring citizenship requires understanding each country's complex criteria. Typically, citizenship is acquired in the following ways:

- Citizenship by birth: The vast majority of countries grant citizenship to children born to citizens of that country, sometimes called *jus sanguinis*, or "right of blood" or citizenship by descent. In some countries, such as the United Arab Emirates, such citizenship by descent is only granted through the father. In most countries, including Sweden, such citizenship can be carried by either of the parents. Many countries grant citizenship to those who were born in the country, a system based on *jus soli*, or "right of soil," or birthright citizenship. This approach is applied in many countries, including the United States.
- Citizenship by extended descent: Some countries, such as the United Kingdom, Italy, and Hungary, also grant citizenship based on the heritage of grandparents or, in some rare cases, even great grandparents who resided in formerly controlled territories. This option underscores the complexity of historical and familial ties in citizenship laws.
- Citizenship through naturalization: A route to citizenship that usually applies to those who have legally entered a country, including political asylum, and have lawfully lived there for a mandated period is called naturalization. Some countries require naturalized citizenship candidates to take a test that demonstrates an understanding of the country's laws, culture, history, traditions, and language. Some countries mandate renouncing prior citizenships before granting naturalization. However, other countries recognize

that certain citizenships can't be renounced or that individuals may wish to keep their previous nationalities. Hence, there are countries that legally permit dual or multiple citizenship.

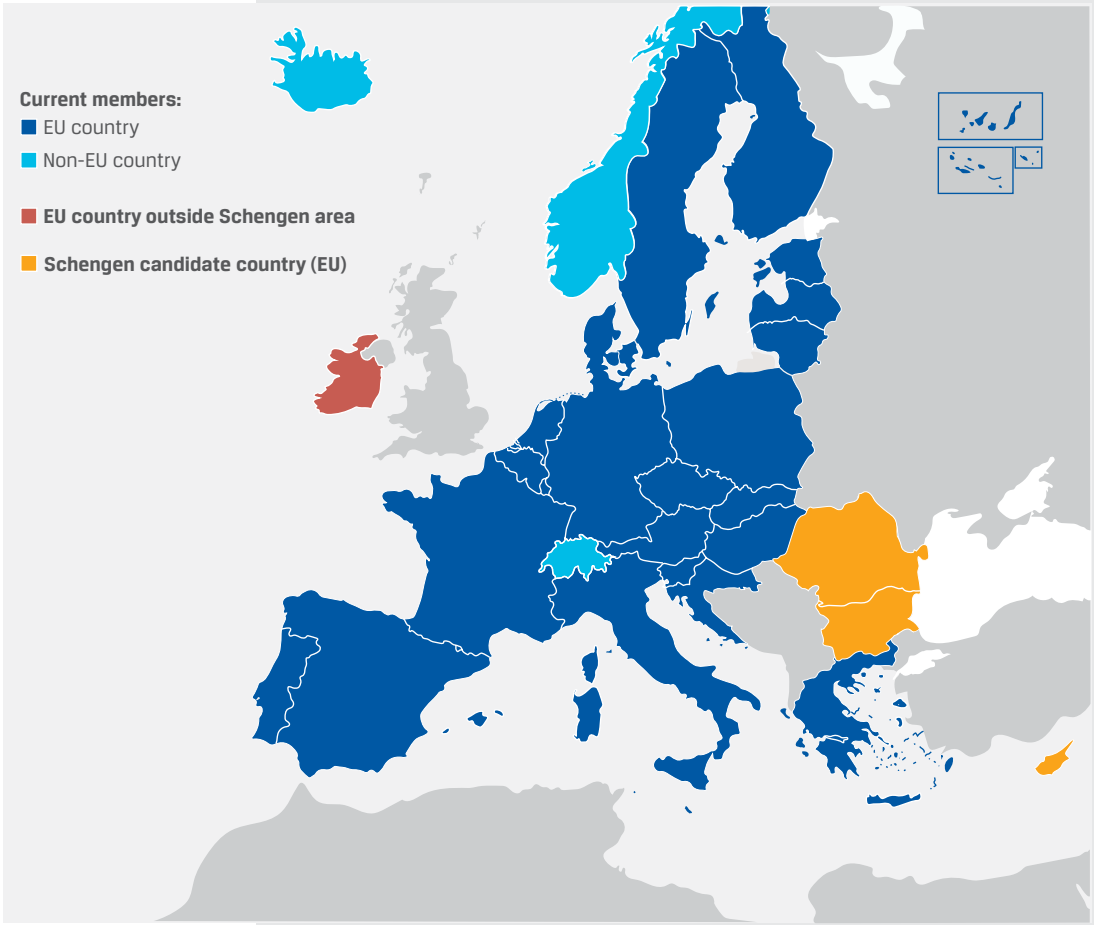
- Citizenship by marriage: In the wake of the Second World War, acquiring the citizenship of a spouse by marrying an individual with citizenship has become common practice and is also a form of naturalization. Known as "right of matrimony" or *jus matrimonii*, couples typically must be married for a set duration or live in the country for a certain number of years before the non-citizen spouse is granted citizenship. Some countries also offer this right to those in civil partnerships, though it is the exception.
- Citizenship by investment: Sometimes called "economic citizenship," some countries offer citizenship by investment (CBI), in which high net worth individuals can acquire citizenship by making substantial financial contributions or investments in the country's economy. Forms of investment can include real estate purchase, business investment, government debt acquisition, or deposits in specific financial institutions. Applicants generally must meet age, criminal record, and income eligibility requirements. Although only a handful of countries in the world currently offer CBI, many of the Caribbean countries, including St. Lucia, Grenada, and St. Kitts and Nevis, do offer them. Intermediate options include golden visa or residency by investment programs, offering pathways to eventual citizenship. Many programs do not impose residency requirements. Such programs allow wealthy individuals to obtain a residence permit in exchange for a significant investment and then offer up various alternatives to gain citizenship.

Dual Citizenship

Many countries recognize dual citizenship, allowing a person to be a citizen of two or more countries at the same time. Dual citizenship can provide multiple benefits: the ability to reside in multiple countries, passport-free travel across many countries (for example, within the Schengen Area for someone holding a citizenship in a Schengen country), and welfare and social benefits, including government pensions, from multiple countries.

The Schengen Area comprises 27 European countries that have abolished border controls at their mutual frontiers. Established by the Schengen Agreement in 1995, countries in this area, as shown in the Exhibit 1 below, allow for unrestricted movement of people within its boundaries. It operates as a single jurisdiction for international travel purposes and has a common visa policy.

Exhibit 1: The European Union and Schengen Countries as of 2023

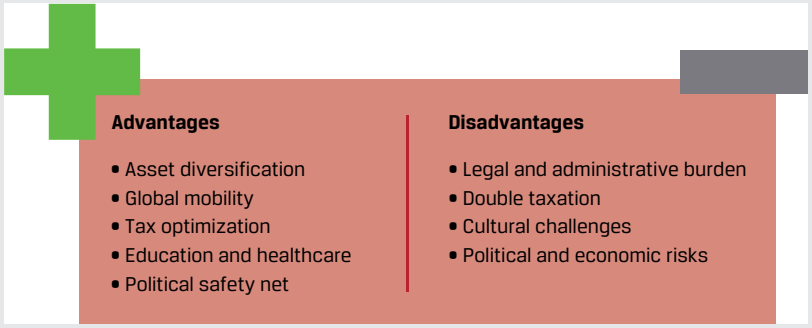


Note that the Schengen Area is distinct from the European Union; some EU countries, such as Ireland, Cyprus, Romania, and Bulgaria, are not part of the Schengen Area, whereas some non-EU countries, such as Switzerland, Iceland, and Norway, are members.

The United States, United Kingdom, South Africa, Australia, and Hong Kong (SAR) are among countries that allow for dual citizenship. Some countries only permit dual citizenship with select other countries, often based on the country's economic relationships. Argentina, for instance, allows dual citizenship only with Italy and Spain, often reflecting economic relationships.

Multijurisdictional citizenship comes with costs and complexities, however, including administrative burdens, legal intricacies, dual taxation, cultural challenges, and exposure to political and economic risks, listed in Exhibit 2 below. Striking the right balance between the advantages and drawbacks of multijurisdictional citizenship requires careful planning, legal expertise, and a deep understanding of the family's unique goals and aspirations. Managing dual citizenships is generally straightforward, but holding three or more citizenships can present complexities. This difficulty arises primarily because double-tax treaty agreements often do not account for situations involving more than two countries.

Exhibit 2: Advantages and Disadvantages of Multijurisdictional Citizenship



Some of the benefits of dual citizenship include the following.

1. Asset diversification: Multiple citizenships allows high-net-worth families to efficiently diversify their investments across countries. Some countries impose restrictions for non-citizens to acquire land and make business investments. Gaining citizenship or holding multiple citizenships increases access to different financial markets, and real estate expands the ability to seize investment and growth opportunities. This expands the universe of investable growth opportunities.
2. Global mobility: Multiple passports simplify international travel and business expansion, especially in countries with restrictive visa policies. For instance, post-Brexit, UK citizens found EU passports valuable for smoother travel within Europe.
3. Tax optimization: Dual citizenship offers opportunities for tax optimization. Families can reside in tax-friendly jurisdictions with more advantageous tax standards while still adhering to relevant tax laws and legally minimizing tax liabilities.
4. Education and health care: Multiple citizenships may provide greater access to top educational and medical facilities worldwide, offering families the flexibility to choose the best options for their and their children's long-term needs.
5. Political safety net: Should political instability arise in one country, dual citizenship provides alternative options through relocation. Similarly, rule of law concerns, including the risk of expropriation, may be assuaged through dual citizenship by legally shifting assets and physical residency to a jurisdiction with a more stable rule of law.

However, there are costs and complexities to weigh for dual citizenship.

1. Legal and administrative burden: Managing multiple citizenships requires navigating diverse regulations and paperwork, a process fraught with potential legal uncertainties, bureaucratic morasses, and compliance requirements and may even lead to potential financial penalties due to incorrect tax filings or residency documentation.
2. Double taxation: Although dual citizenship can be tax efficient, it also risks dual taxation. Understanding tax treaties and filing requirements for each country is critical to avoiding multiple taxation on the same income or assets. Given the automatic exchange of information and double tax treaties,

the complexity is on potential multiple taxation of income or assets. Finally, the reporting obligations for foreign financial accounts and assets can be time-consuming and require expert assistance.

3. Cultural challenges: Juggling identities across different countries may erode one's sense of belonging and pose social difficulties. Children who frequently relocate may especially face difficulties in forming stable friendships and struggle in developing a consistent sense of home and cultural identity.
4. Political and economic risks: Citizenships in politically or economically unstable countries exposes families to potential losses due to nationalization or illegal expropriation of assets, requiring them to stay informed and agile in their planning. In fact, some countries may require military service for citizens of a certain age.

While many countries allow dual citizenships, there are multiple countries that explicitly disallow multiple citizenships. For instance, China, Singapore, and the United Arab Emirates restrict dual citizenship, necessitating the renunciation of one's existing citizenship to adopt another. This renunciation decision can hinge on various factors, from diverging legal rights between permanent residents and citizens to tax implications.

Legal Residence and Tax Domicile

Determining legal residence is crucial for taxation purposes. But, because of conflicting definitions of residency across countries, families may be classified as residents in multiple countries, leading to complex taxation considerations. Needless to say, actively avoiding or preventing such situations from occurring is important.

Tax domicile refers to the country where an individual is considered a tax resident. Establishing tax domicile builds on citizenship and residency and involves factors such as the type of residency, duration of stay, complexity and comprehensiveness of economic ties, and family or social connections to a country. Different countries have varied rules for determining tax domicile, adding complexity for multijurisdictional families. Some countries enforce these rules strictly to ensure that individuals with limited connections to the country remain taxpayers even after they have moved elsewhere. Example 1 outlines the rules for tax residency in Norway.

Every individual must have a designated principal tax residence to avoid ambiguity in taxation, which usually is the country or jurisdiction where the individual resides most frequently or holds substantial connections. There might be situations in which a person qualifies as a tax resident under the tax residence rules of more than one jurisdiction and therefore is a tax resident in more than one jurisdiction. Absent double taxation agreements between the jurisdictions, the individual taxpayer may be liable to pay taxes in all jurisdictions to all jurisdictions.

EXAMPLE 1

Tax Residency in Norway

The tax residency rules in Norway apply to both individuals who are new arrivals and those who have previously lived in Norway, provided the latter group's prior emigration was tax approved.

Length of Stay	Commencement of Tax Residency
More than 183 days in a 12-month period	From the first day in Norway
183 days over two tax years	From January 1 of the second year, with limited tax liability in the first year for specific Norwegian-sourced income
More than 270 days in a 36-month period	From January 1 of the year when the 270-day limit is crossed, with limited tax liability in preceding years

An individual becomes a Norwegian tax resident if staying in the country for more than 183 days in a 12-month period or more than 270 days over a 36-month period. These calculations include both partial and full calendar days spent in Norway.

If an individual crosses the 183-day threshold in the year of moving to Norway, tax residency starts from the arrival day. If these 183 days span two tax years, residency starts from January 1 of the second year; limited tax liability applies in the prior year for specific Norwegian-sourced income.

If an individual stays longer than 270 days within a 36-month period, tax residency commences on January 1 of the year exceeding this limit. Limited tax liability applies for the preceding year(s).

Lastly, an individual can spend an average of 90 days per year in Norway without becoming a tax resident, allowing for family visits, holidays, and maintaining social and other contacts within Norway without triggering tax domicile.

Effective wealth management for multijurisdictional families requires strategic planning to minimize tax liabilities both during one's life and at death as assets transfer from one generation to the next. Income generated by assets located outside an investor's home country, for example, may be taxed in both the country where the income originates and the country where the wealth owner resides. Sometimes, there may be a third or even fourth country involved where the assets are legally located. For instance, a Swiss asset manager holding shares in an Egyptian telecommunications company on behalf of a Saudi citizen pays the dividends to its Saudi citizen client living in the United Kingdom. Each step in the process may trigger taxation of some sort, absent rules governing how income earned in different jurisdictions is treated. Similarly, transferring ownership of overseas assets upon death may also be difficult and may trigger multiple tax liabilities from both the home country and the country in which the assets are located. This impacts decisions on asset structuring, transfers upon death, and other dispositions.

Taxable claims for a particular country are based on its jurisdiction: A country that taxes income sourced within its borders is said to impose source jurisdiction, also referred to as a **territorial tax system**.

The interaction of country tax systems can result in tax conflicts in which two countries claim to have taxing authority over the same income or assets. This conflict can relate to any taxable event: may it be income, capital gains, gifts, or inheritance. These tax conflicts can be described as follows.

- Residence–Residence Conflict: This occurs when an individual is considered a tax resident in two different countries, perhaps because someone spends significant time in both countries, which may therefore assert the right to tax the individual's non-source income. This scenario can result in the same income or assets, whether salary, capital gains, or inheritance, being taxed twice, leading to complexities.

- Source–Source Conflict: This can occur when an individual owns a business physically located in Country A, but the business operations are managed from Country B. Both countries claim that the business income should be taxed in their jurisdiction. This creates complex tax obligations because each country insists that the income was generated within its borders.
- Residence–Source Conflict: This occurs when taxation obligations are global and is one of the most common and challenging types of tax conflict. Take, for example, a US citizen who owns real estate in Singapore. The United States considers the individual a tax resident and claims the right to tax their worldwide income. On the other hand, Singapore also wants to tax the rental income from the property because it falls under its source jurisdiction. The individual thus faces the difficulty of potentially being double taxed unless they can find relief through mechanisms like foreign tax credits or DTTs.

Because a source country is commonly viewed to have primary jurisdiction over tax income within its borders, the residence country is typically expected to provide double taxation relief if any is to be provided. A residence country may choose to unilaterally provide its taxpayers relief from residence–source conflicts within its own tax code using one or more of the following three methods.

- The **credit method** offsets domestic tax liability with the taxes already paid to a foreign country. Importantly, the individual cannot claim more credit than the amount owed under the home country tax jurisdiction, or

$$\textit{Tax rate via credit method} = \max(\textit{Domestic tax rate}, \textit{Foreign rax rate}) \quad (1)$$

For example, let's say the taxpayer's home country taxes worldwide income at a 50% rate but provides a credit for foreign taxes paid. If the foreign country's tax rate is 40%, the taxpayer's effective tax rate remains 50%. Specifically, the taxpayer pays 40% to the foreign country and the additional 10% to the home country. However, if the foreign country has a 60% tax rate, the effective tax rate becomes 60%, all of which is payable to the foreign government. In this case, the home country receives nothing because its tax credit only offsets its own 50% rate.

- The **exemption method** allows for offsetting of taxes; the home country relinquishes its taxation rights on foreign-source income. Essentially, the taxpayer owes taxes only to the foreign country where the income originates. The formula simplifies to

$$\textit{Tax rate via exemption method} = \textit{Foreign tax rate} \quad (2)$$

For example, with a foreign tax rate of 40% on income, the taxpayer pays this entire amount to the foreign government. Countries like Singapore, Malaysia, and Thailand typically adopt this approach, as they operate under territorial-based tax systems.

- The **deduction method** reduces the taxable income by the amount of qualifying taxes already paid to a foreign government. While this does not eliminate double taxation, it reduces the overall tax liability. The composite tax liability under this method involves a more nuanced calculation:

$$\textit{Tax rate via deduction method} = \textit{Domestic tax rate} + \textit{Foreign tax rate} - (\textit{Domestic tax rate} \times \textit{Foreign tax rate}) \quad (3)$$

For example, using a 50% domestic rate and a 40% foreign rate, the total tax liability is 70%. Here, the foreign country collects 40% and the home country collects the remaining 30%. The home country, in this case, concedes a part of its tax claim, acknowledging the primary taxing rights of the source country.

Various jurisdictions incorporate foreign tax credit provisions into their domestic tax codes, encompassing categories such as income, gift, or estate tax. Take the United States as an example: It extends foreign tax credit relief for income and estate taxes but excludes gift taxes. Therefore, a US resident contemplating a wealth transfer involving an asset in a foreign jurisdiction with gift tax might strategically delay that transfer. Specifically, by waiting until the death of the donor, the asset could qualify for the US foreign estate tax credit, thereby optimizing, and effectively minimizing, the overall tax burden. Conversely, France incorporates foreign tax credit relief for gift and estate taxes yet not for income taxes. Spain, meanwhile, provides comprehensive foreign tax credit provisions covering income, gift, and estate taxes.

There are some nuances in foreign tax credit provisions. Crucially, a foreign tax credit provision doesn't prescribe the specific mechanism a country uses to mitigate double taxation. A jurisdiction might employ the credit, exemption, or deduction method or even another unique approach for tax relief. Few countries rely purely on either the exemption or credit methods to shape their foreign tax credit provisions. An instructive example is the Foreign Earned Income Exclusion (FEIE) available to US citizens and residents with a tax home in a foreign country. As of 2023, the FEIE allows for the exclusion of up to USD120,000 of income annually from taxation, with adjustments made yearly for inflation.

Double Taxation Treaties

DTTs offer an alternative to domestic laws for mitigating double taxation on international income. Over 2,000 active DTTs aim to boost global trade and investment by resolving conflicts between residence and source countries. The Organisation for Economic Co-operation and Development (OECD) Model Tax Convention on Income and on Capital, commonly referred to as the OECD Model Treaty, serves as a blueprint for DTT. It seeks to harmonize the structure of international taxation rules and thereby eliminate double taxation between countries. The model treaty outlines how taxes on income and capital should be levied on cross-border economic activities, eliminating double taxation between the source country and the residence country. The treaty serves as a model primarily for OECD member countries but is often adopted by non-member countries as well.

With increased international trade, investment, and capital flows across different jurisdictions, many countries sought to retain tax revenues from assets and revenue generated in other jurisdictions throughout the nineteenth and twentieth centuries. Countries addressed international double taxation through either unilateral domestic legislation or bilateral tax treaties.

The Model Treaty advocates for using either the exemption or credit method to settle these double taxation conflicts. It predominantly covers direct taxes, focusing on income and capital taxes on business profits, dividends, interest, and royalties, as well as capital gains from the disposition of property. The treaty does not typically address indirect value-added or sales tax. Additionally, to prevent tax evasion and avoidance, it creates mechanisms to share taxpayer information between countries and includes specific anti-abuse provisions to counter tax evasion tactics, like **treaty shopping**, where an individual or entity attempts to leverage treaty tax advantages without genuine economic activities in either country.

Some individuals motivated by confidentiality, security, or tax optimization objectives may choose to reside in countries that lack a DTT with the country where their main income source is located to avoid reporting obligations from the residence country to the source country.

In the Model Treaty, a **resident** is defined as an individual or entity subject to tax in a specific country based on factors like domicile or physical residence. Conversely, the **source state** is the jurisdiction where the income originates, generally where the related economic activity takes place. Determining residency and source state are essential for allocating tax rights between countries. For double taxation relief, the treaty supports the use of credit and exemption methods, aligning with unilateral domestic provisions.

The Model Treaty outlines how various income types are taxed and identifies which country has the initial right to tax them. Priority is usually given to the state of residence, except for real estate income, which is taxed in the source state. Investment income, like dividends and interest, is subject to tax by the source state.

The treaty caps withholding tax rates at 15% for dividends and 10% for interest but allows for exceptions. If using the exemption method, this withholding tax fulfills the entire tax liability for that income. If using the credit or deduction method, additional taxes may be owed to the residence country. These low rates aim to share tax revenues between the source and residence states. Unlike investment income such as interest income and dividends, capital gains are taxed in the seller's residence country.

The sale of real estate is an exception. Specifically, the tax liability is typically determined by the physical location of the real estate, with the country where the real estate is located retaining the rights to tax the capital gains generated from its sale, regardless of the seller's country of residence. This diverges from the usual practice, in which the resident country has the primary right to tax global income.

To resolve residence–residence conflicts when an individual can be considered a dual-resident taxpayer "by reason of his domicile, residence, place of management or any other criterion of similar nature," the treaty outlines tie-breakers in the following order based on the location of an individual's (1) permanent home, (2) center of vital business interest, (3) habitual dwelling, and (4) citizenship. The treaty typically does not resolve conflicts involving only source countries.

In Switzerland, the exemption method is generally used in its DTTs. However, for countries without a DTT, Switzerland employs the credit method for foreign-source taxes. France offers another example; its DTT with Sweden encompasses income, gift, and estate taxes, whereas its treaty with Spain covers only income taxes. Still, double taxation on gift and estate taxes can often be mitigated through domestic foreign tax credit provisions in both countries. The focus of most DTTs is on income taxes, as many jurisdictions lack estate taxes, making an estate-specific DTT unnecessary. To avail themselves of any treaty benefits, taxpayers must meet the residency criteria specified in the treaty.

CASE STUDY

Double Taxation Credit Provisions

Boris Yanukovych is a citizen and resident of Country A with investments held in Country B and none in Country A. Country A taxes global income, whereas Country B taxes income generated locally. A DTT between the two countries addresses these conflicting tax systems. Investment income tax rates and estate tax rates in each country are as follows:

	Country A (%)	Country B (%)
Investment Income Tax	25	40
Estate Tax	50	30

1. What is Yanukovych's investment income tax rate under the DTT if it provides for the credit method? How are taxes split between Country A and Country B?

   Solution:

   Under the credit method, $T_{CreditMethod} = \text{Max}[T_{Residence}, T_{Source}] = \text{Max}[0.25, 0.40] = 40\%$. This entire amount is paid to Country B, and Country A credits Yanukovych for the tax paid. There is no additional tax liability in Country A since Country A's investment income tax rate is less than Country B's investment income tax rate.

2. What is Yanukovych's estate tax rate under the DTT if it provides for the exemption method?

   Solution:

   Under the exemption method, only Country B's tax rate of 30% applies to bequests. This amount is entirely remitted to Country B, and Country A forfeits its taxing rights.

3. What is Yanukovych's estate tax rate under the DTT if it provides for the deduction method?

   Solution:

   Under the deduction method, Yanukovych can deduct the 30% estate tax paid to Country B from his domestic tax liability in Country A.

   $$\textit{Tax rate via deduction method} = \textit{Domestic tax rate} + \textit{Foreign tax rate} - (\textit{Domestic tax rate} \times \textit{Foreign tax rate})$$
   $$= 0.50 + 0.30 - (0.50 \times 0.30) = 0.65$$

   Consequently, he pays a 35% tax, equal to 50% – (50% × 0.30), to Country A and a 30% tax to Country B for his estate.

Ending Tax Residency

Tax residency dictates an individual's obligations for income, capital gains, and other taxes within a specific country. While citizens are generally considered tax residents, each country has its own rules and procedures for establishing or terminating tax residency for citizens, residents, immigrants, and emigrants.

Key factors, such as length of stay, family ties, property ownership, and income sources, impact tax residency status and the process for ending it. Establishing permanent residency and shifting daily activities to another country or jurisdiction are critical steps for terminating tax obligations in the original jurisdiction. Short-term stays, such as vacations, temporary work assignments, and studying, are often insufficient for this purpose. For instance, spending several months per year in Spain or Florida may not necessarily establish new tax residency or terminate existing residency in the original location. Thus, changing tax residency is not merely about relocating; it involves establishing a new permanent address and, if applicable, immigration documentation, such as a legal certificate of residence issued by a competent authority.

The residency status of immediate family members can add complexity to terminating tax residency. For instance, maintaining a residence for immediate family members, such as children or other financially dependent family members in the original jurisdiction, will likely extend tax obligations and limit the ability to terminate tax residency.

Changing state residency for tax purposes is common and frequently more straightforward than changing national residency. In the United States, for example, individuals with high incomes often move their residency to Florida, a state with no state income taxes. Many retirees and those with high accumulated wealth also move there because the state does not impose estate taxes. Hence, these can significantly reduce the total tax burden.

EXAMPLE 2

Terminating Tax Residency in Norway

To terminate tax residency in Norway, an individual must fulfill the following three criteria:

1. Establish permanent residency in another country
2. Limit their stay in Norway to a maximum of 61 days within the income year
3. Ensure that neither they nor their immediate family (spouse, partner, children) have a residence in Norway

For those who have lived in Norway for less than ten years before relocating, tax residency ends in the income year when all three criteria are met.

For individuals with a decade or more of residency in Norway, tax obligations persist until the end of the third income year after securing permanent residency abroad. During each of these three years, the individual must not spend more time in Norway each year than 61 days, and neither the individual nor their immediate family should maintain a residence in Norway.

Failure to adhere to jurisdictional tax laws can lead to significant repercussions, potentially affecting future tax obligations, including the increased risk of double taxation. Long-term financial health and legal residency, including protection of assets in both jurisdictions, may become imperiled.

Renouncing Citizenship

To simplify overlapping legal, bureaucratic, and tax obligations across multiple jurisdictions, multijurisdictional families with multiple citizenships may contemplate renouncing one of their citizenships. For example, a US citizen subject to worldwide taxation may find financial relief in renouncing US citizenship, although it becomes effective only after all taxes due have been paid, including possible exit tax obligations discussed below. Conversely, individuals may forsake citizenship to avoid military conscription in their conflict-ridden home country. Renouncing citizenship involves a serious, often emotional decision-making process, fraught with intricate legalities and potential tax repercussions.

Another factor influencing this decision can be an exit tax levied by the country whose citizenship is being renounced to compensate for lost tax revenue. These regulations often change, adding another layer of complexity to the decision-making process. Moreover, compulsory military service obligations in many European and Asian countries might be an additional reason for men and women to renounce their citizenship or seek dual citizenship elsewhere.

Exit taxation is generally not applicable for capital moving between EU countries but could apply to capital moving outside the EU.

In most cases, the exit tax amounts to a tax on unrealized gains accrued on assets leaving the taxing jurisdiction. This approach is a **deemed disposition** and triggers taxation of any previously unrecognized capital gains. The tax is therefore levied not on the principal value of the transfer but rather only on the value of unrecognized gains, if any. The exit tax may also include an income tax on income earned over a fixed period after expatriation, called a "shadow period."

CASE STUDY

Exit Tax

John is a wealthy individual who has relocated to Country Y and decided to renounce his citizenship in Country X. Country X is known for its high tax rates, whereas Country Y offers more tax-friendly policies. Country X imposes a 25% exit tax on "deemed capital gains," calculated as if the assets were sold the day before leaving. John possesses a diverse asset portfolio valued at EUR5 million, which includes stocks, bonds, and real estate.

To determine the exit tax John owes, it is necessary to calculate the "deemed capital gains" on his portfolio. The original cost of acquiring these assets was EUR3 million. Therefore, the deemed capital gain would be EUR5 million minus EUR3 million, totaling EUR2 million. Applying the 25% capital gains rate to this amount, John would owe EUR500,000 as an exit tax to Country X.

This exit tax is a one-time payment, and once it is made, John would generally have no further tax obligations related to these assets in Country X. Any tax treaty between Country X and Country Y will further dictate whether this exit tax can be credited against John's future tax liabilities in Country Y.

The United States is among the few countries that tax citizens on worldwide income, prompting some individuals who permanently reside abroad to renounce their US citizenship for tax reasons. Such individuals face an exit tax, aimed at preemptively capturing taxes on future liabilities like unfiled returns or deferred capital gains. This tax assumes a deemed sale of all global assets at their fair market value one day before expatriation. The tax's scope includes a wide variety of property, from financial instruments to personal items like cars and jewelry. The exit tax is levied on those with a net worth over USD2 million. It also applies to long-term non-citizen residents, defined as those who have been lawful permanent residents for at least eight of the last fifteen years who terminate their US residency and move elsewhere.

Residency Through Investment Visas

An array of visa programs offers legal, tax, and economic benefits to those seeking an alternative to full citizenship in a country with lower regulatory, tax, and administrative burdens. Visa options include work visa, student visa, and investor visas or golden visas, each with its own unique considerations.

Work visas and student visas offer temporary residency options for individuals seeking employment opportunities or pursuing educational aspirations in foreign countries. For instance, lawful permanent residency in the United States grants individuals the right to work in, live in, and return to the United States. Permanent residency visa programs provide the advantages of legal residency without being a citizen of a country.

Investor visas generally offer temporary residency in exchange for specified investments in local businesses or industries, without guaranteeing a route to full citizenship. In contrast, **golden visas** provide initial residency, work rights, and a path

to permanent residency and potentially citizenship through significant investments in areas like real estate, government debt, or business ventures. These programs attract wealthy families for visa-free travel and financial advantages. Additionally, they may offer the opportunity to legally locate assets in a country with potentially favorable tax treatment and legal asset protection.

CASE STUDY

Singapore and its Global Investor Programme

Maria, a successful entrepreneur, aims to secure a second residency for her family in Singapore. The Global Investor Programme (GIP) accords Singapore Permanent Resident status (PR) to eligible global investors who intend to drive their businesses and investment growth from Singapore. There are three different options to invest under the program:

A. Invest SGD 10 million in a new or existing Singaporean business and employ at least 30 workers to qualify for re-entry permit renewal after the initial five years. At least 15 employees must be Singaporean citizens, and if the business pre-exists, you must hire 10 new employees.

B. Commit SGD 25 million to a Singapore Economic Development Board–approved fund that focuses on investments in Singapore-based companies.

C. Create a Singapore-based single-family office with a minimum of SGD 200 million in assets under management. Allocate and maintain at least SGD 50 million in approved investment categories for the five-year residence duration.

Upon meeting the required criteria, Maria and her family may be granted permanent residency in Singapore for a five-year initial period. After two years of permanent residence in Singapore, it is possible to apply for Singapore citizenship. Singapore, however, does not allow dual citizenship and will not be an ideal option for individuals who are interested in holding more than one citizenship and passport.

Tax laws—and residency and nationality laws—are also subject to frequent revisions, making continual adjustments in financial strategies essential. Moreover, within countries like the United States and Switzerland, state or local regulations can cause significant variations in tax regimes. Thus, awareness of these dynamic external factors is crucial for effective tax planning and decision-making.

QUESTION SET

1. Which of the following poses the most complex challenge in wealth management for private clients with an extensive global geographic presence?

   A. Travel logistics

   B. Currency risk management

   C. Tax planning and optimization

   Solution:

   C is the correct answer. Tax considerations introduce a lot of complexity to the wealth management for such clients, as each country will have its own tax code and peculiarities. The other two options certainly have to be

addressed, but by far, tax considerations will be much more complicated and require nuanced, individualized solutions.

2. Describe the advantages and disadvantages of possessing dual citizenship.

Solution:

Dual citizens may have advantages with asset diversification holding assets across different countries, increased physical mobility due to passports and advantages in visa-free travel, greater access to educational and health care opportunities, and more alternatives to secure social and political safety net entitlements, such as government-sponsored health care and pension plans. Additionally, there may be flexible taxation arrangements.

Dual citizens may entail disadvantages from legal/administrative and tax complexities that require maintenance, the risk of facing double taxation, potential cultural adaptation challenges, and exposure to additional political and economic risks.

3. Relief from double taxation is typically provided by:

A. the source country only.

B. the residence country only.

C. both the source country and the residence country.

Solution:

B is the correct response. The source country is generally viewed as having primary jurisdiction in taxing income obtained within their own boundaries.

4. What is the purpose of the Model Tax Convention?

Solution:

The OECD developed the Model Tax Convention, which seeks to harmonize the structure of international tax laws by outlining how taxes on income and capital should be imposed on cross-border economic activity.

COMPLEX FAMILIES

3

☐ discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of complex family situations

Wealth management discussions often focus on traditional family structures, overlooking the complexities that come with blended families, previous marriages, cohabitation, and varying legal statuses. Patriarchs and matriarchs may have blended families from previous marriages, with children who are either legally adopted or estranged. Additionally, family members may opt for cohabitation over legal marriage, and patriarchs as matriarchs could engage in multiple concurrent family-like relationships. Patriarchs, matriarchs, and their descendants may cohabitate rather than legally marry. Same-sex cohabitating couples may face unique legal and financial challenges, depending on their jurisdiction, many of which prohibit same-sex marriage.

The legal status of various family members is heavily influenced by a country's legal system.

- **Civil law system**, which is derived from Roman jurisprudence, is widely adopted globally. In the civil law system, elected legislatures enact laws, and the courts, through their judges, interpret and apply these laws to each particular case.
- **Common law system** traces its heritage to British legal tradition and draws abstract rules from specific cases. It is a case law system in which previously adjudicated cases influence pending and future cases. Put differently, in civil systems, law is developed primarily through legislative statutes or executive action. In common law systems, law is developed primarily through decisions of the courts.
- **Shari'a law**, which is implemented in countries where Islam is predominant, exhibits significant diversity variation through cases and statutory development. This legal system often parallels civil law systems. Its application in family law demonstrates variability across countries.

These factors can greatly influence the legal status and intentions behind wealth distribution, sometimes contradicting the wealth owner's objectives. Additionally, same-sex couples in jurisdictions that ban same-sex marriage may face unique financial and legal hurdles. These complexities demand tailored wealth management strategies to accurately reflect the relationships and intentions within diverse family units, whether extended, nuclear, or non-traditional.

The subsequent sections deal with wealth management considerations in unexpected family situations, such as divorce, cohabitation, and same-sex relationships.

Divorce and Divorce Planning

Divorce poses emotional and financial challenges that are magnified when international factors come into play due to diverse legal systems, property ownership rules, and cultural norms. Wealth planning and legal measures are vital for asset protection, fair property division, and financial stability.

In asset division during divorce, the distinction between community and separate property is crucial.

- **Community property regimes**, like some US states and France, treat marital assets as jointly owned, dividing them equally upon divorce.
- **Separate property regimes**, like the United Kingdom, view pre-marital or post-marital gifts and inheritances as individual property. The categorization of assets often sparks legal disputes and negotiations.

Agreement between the parties can change the ownership of the assets; the two most common agreements relevant to asset disposition are as follows.

- **Prenuptial agreements**, contracts signed before marriage, outline the division of assets, debts, and financial obligations in case of divorce or death. They offer predictability in asset division but may not be universally enforceable, especially in community property jurisdictions.
- **Postnuptial agreements** serve the same purpose but are established after marriage, adapting to any changes in financial circumstances.

In countries that adhere to Shari'a law, divorce procedures can vary between jurisdictions due to different interpretations and schools of thought. Specifics of divorce proceedings should be obtained from relevant legal authorities or experts in the specific jurisdiction.

When divorce is imminent or considered, a comprehensive inventory of both spouses' financial assets—including real estate, investments, retirement funds, and businesses—is an essential first step.

Divorce proceedings are not only expensive but also time-consuming, often necessitating planning for liquidity needs arising from potential alimony, child support payments, and the establishment of separate households. Strategies might include earmarking liquid assets, obtaining lines of credit, or selling non-essential assets. Both parties should ideally open individual bank accounts separately. However, the structure of these separate financial setups should align with any legal agreements between the spouses and should not seek to actively disenfranchise either party.

The distribution of assets—namely, marital residences, financial assets, and inheritances—frequently causes disputes during divorce. Their treatment hinges on the legal system under which the marriage falls, as well as any existing prenuptial or postnuptial agreements, and the jurisdiction overseeing the divorce.

- Marital residence: Countries and their legal systems may have specific rules about property rights and occupancy, often favoring the spouse responsible for custodial childcare. It is vital to know whether the property falls under community or separate property laws and whether prenuptial or postnuptial agreements dictate its distribution. In certain cases, selling the property and splitting proceeds might be the best option, especially if co-ownership is geographically impractical.
- Financial assets: Division of financial assets in divorce, including investments in family business, is normally determined by whether the local legal system by default is a common or a separate property rule.
- Pensions and retirement accounts: The treatment of pensions and retirement accounts varies across legal systems. Maintaining current beneficiary designations is important, as these normally override the terms of other documents, including wills.
- Updating beneficiary designations is crucial to avoid probate and because these normally override terms in agreements, including wills. Life insurance policies, including annuities, likewise require beneficiary updates to align with the divorce proceedings.
- Inheritances: Treatment of inheritances varies based on when they are received and local jurisdiction. Civil law countries often have forced heirship rules that can influence asset distribution. In community property regimes, pre-marital inheritances are generally considered as separate property and not subject to division between the spouses upon divorce. Other assets acquired before marriage are typically considered community property. In separate property regimes, typically all assets acquired before the marriage or through inheritance or gift are considered the sole property of the individual who received them, and they are not automatically subject to division in the event of divorce.

For example, if John inherits artwork before marrying Jane, the artwork will likely remain John's separate property in a community property jurisdiction upon divorce. If John buys the artwork before marrying Jane, the artwork will likely become community property and will be divided upon divorce. In contrast, inheritances received during marriage may be considered community property, thus subject to division. Rules may be different for real estate acquired before marriage in a community property jurisdiction.

In cases of separation, divorce, or death, the ownership of property can become unclear. It is crucial to ensure that all asset transactions are thoroughly documented. Documentation is often overlooked for items with sentimental value but is essential for more valuable assets, such as collectible art or antique furniture, to avoid future

disputes. As individuals age and their memory possibly deteriorates, questions may surface regarding their legal capacity to manage their assets. Transactions involving real estate, automobiles, yachts, boats, planes, and publicly traded financial assets are typically recorded in public registries, providing a clear ownership trail that is beneficial during asset distribution.

Consider further that in the United Kingdom, inheritances may be subject to a 50/50 division, affecting long-term family asset planning, such as keeping a business within the family. However, most community property systems, such as in the US state of California, consider inheritances as separate property if not commingled with community funds by depositing into a joint bank account.

In separate property regimes, assets obtained before marriage or received as gifts or inheritances (either before or during marriage) are usually the sole property of the recipient and aren't divided during divorce. However, some nuances require attention:

- Commingling of funds: Mixing inheritance funds with joint accounts or using them for joint expenses can turn separate property into marital assets, making them subject to division.
- Increase in value: Gains from investing an inheritance, or acquiring additional assets from the inheritance, during the marriage could be divisible, depending on jurisdiction.
- Transmutation: Separate assets may convert into marital assets if the non-owning spouse significantly contributes to their value increase.
- Legal variation: Laws differ between jurisdictions, which could affect how inheritances are treated.

For ultra-high-net-worth families, major assets and investments are frequently held indirectly and dispersed across multiple legal entities in various jurisdictions to capture tax, privacy, and legal advantages. A wealthy entrepreneur's portfolio often encompasses a diverse range of companies across various jurisdictions, each operating under different legal structures, such as partnerships, limited liability companies, and corporations. These arrangements are often designed to minimize legal risks and optimize tax liabilities, resulting in intentional opacity. That is why understanding and unraveling these complex ownership structures can be a time-intensive task and often complicate matters during separation or divorce proceedings.

Divorce can be complicated by the complexity of ownership structure that legally shields the family wealth. Additionally, effective generational transfer planning necessitates a high level of transparency between the family and its advisers.

Cohabitation

Cohabitation refers to the living arrangement in which two people, typically in a romantic or committed relationship, share a residence without being legally married. The financial and legal aspects differ by jurisdiction and any agreements made between the parties. Unlike married couples, cohabitants generally don't have automatic legal rights or obligations toward each other unless outlined in a contract, statute, or under certain common-law rules. Therefore, cohabiting individuals must be clear about how they intend to manage finances, property ownership, and other shared responsibilities to avoid complications in the event of separation.

A **cohabitation agreement** that establishes a legal and financial framework for the relationship, by defining how assets and debts will be treated during cohabitation and in the event of separation or death, is particularly useful. Even though local laws may deem both partners jointly liable for debts, an agreement can provide additional clarity. Clarity in asset titling, that is legal ownership, is essential to preserve each party's intentions over time. The same applies to incurring debts.

For cohabitating partners, estate planning tools through wills or trusts or family foundations can help dictate asset distribution, particularly in regimes where the legal system may supersede individual agreements between the cohabitants. In separate property jurisdictions, a well-crafted cohabitation agreement becomes even more crucial due to the greater flexibility it offers in asset distribution.

Should the cohabitation relationship end, asset division can echo the rules applied to marital assets. In many jurisdictions, typically community property systems, assets acquired while cohabiting may be divided similarly to those in a marriage. However, in separate property systems, each party generally retains assets acquired during the relationship. Accurately titling assets and updating a detailed cohabitation agreement can offer legal clarity and safeguard each partner's interests when the relationship ends, either because of separation or death, because cohabiting partners often do not benefit from the same legal rights and responsibilities as married couples.

Same-Sex Couples

Wealth planning for same-sex couples depends greatly on whether same-sex marriages are legally recognized in a particular jurisdiction. The Pew Research Center reports that marriage between same-sex partners is legally recognized in over 30 countries, predominantly in Europe, North America, South America, and Australia.

In these jurisdictions, wealth planning for married same-sex couples is largely similar to that of traditional couples. However, in regions where same-sex relationships lack legal recognition, coordinating financial, legal, and tax elements becomes challenging and, in doing so, requires considerable discretion and sensitivity from a wealth manager.

In the United States, for example, same-sex married couples are entitled to the same tax exemptions as heterosexual spouses and can now generally leave an unlimited amount of assets to their surviving spouse without triggering a federal estate tax, as long as both are US citizens. Importantly, community property regimes can override the terms of a will for a partner in a same-sex marriage (e.g., forced heirship) in the same way as for traditional couples.

In contrast, in jurisdictions where same-sex marriage is not recognized or same-sex couples are cohabitating without formalizing their relationship, wealth planning becomes more complex. In these scenarios, the considerations largely align with those for cohabitating couples discussed earlier, including the importance of asset titling and cohabitation agreements to secure each partner's financial interests.

Capital Transfers Within Families

Complex families, including those with multigenerational or multijurisdictional footprints, must ultimately manage the transfer of their wealth to other family members or unrelated individuals, organizations, and philanthropic causes. Transfers may be made during one's lifetime (inter vivos) or completed after death per the terms of a testamentary bequest.

As Bronson, Scanlan, and Squires (2007) point out, "The possible legal structures for a wealth transfer are necessarily country specific. Timing of wealth transfers, however, involves the more universal principles of tax avoidance, tax deferral, and maximized compound return."

Transferring wealth during one's lifetime can offer the benefit of reducing the taxable estate at death, thereby lowering estate or inheritance taxes. However, jurisdictions with estate or inheritance taxes often counter this strategy by imposing gift taxes. In some systems, the value of gifts made in the past is added back to the estate for estate or inheritance tax purposes. Also gifting during lifetime needs to be done on a balanced basis, as the individual will lose ownership control of the asset after gifting.

The Choice Between Tax-Free Gifts and Bequests

Parents often aim to transfer wealth to their children either through lifetime gifts or posthumous bequests. The efficiency of the transfer method is crucial, as is the manner in which gifts are made—whether taxed or tax free. The applicable tax rate, the amount of wealth transferable at a low tax rate, and the maximum amount of tax-free gifts are all significant factors. The question arises: Is it more efficient to make a series of smaller, non-taxed gifts over many years, or a large bequest upon death? The key metric for comparison is the future value of both the tax-free gift and the bequest, calculated to the time of the donor's death.

The future value of the tax-free gift, $FV_{TaxFreeGift}$, depends on the beneficiary's expected pre-tax returns, r, the effective tax rate on those returns, t_g, and the expected time until the donor's death, n:

$$FV_{TaxFreeGift} = [1 + r\,(1 - t_g)]^n \tag{4}$$

The future value of the bequest subject to estate tax is a function of the expected pre-tax returns to the estate, r_e, the effective tax rate on those returns, t_e, the expected time until the donor's death, and the estate tax rate, T_e:

$$FV_{Bequest} = [1 + r\,(1 - t_e)]^n\,(1 - T_e) \tag{5}$$

Hence, the relative after-tax value of a lifetime tax-free gift compared to a bequest in a taxable estate can be summarized as

$$RV_{TaxFreeGift} = \frac{FV_{TaxFreeGift}}{FV_{Bequest}} = \frac{\left[1 + r(1 - t_g)\right]^n}{\left[1 + r(1 - t_e)\right]^n (1 - T_e)} \tag{6}$$

The equation compares the after-tax value of a lifetime tax-free gift to a taxable bequest. The numerator shows the future after-tax value of the tax-free gift, $[1 + r\,(1 - t_g)]^n$, while the denominator shows the future after-tax value of a taxable bequest, $[1 + r\,(1 - t_e)]^n\,(1 - T_e)$. The ratio indicates the relative value of choosing a tax-free gift over a bequest: If the ratio is above 1.0, the gift is more beneficial; if it is below 1.0, the bequest is preferable.

If the pretax return and tax rates are the same for both the donor and recipient, the tax-free gift's relative value simplifies to $1/(1 - T_e)$. For instance, a EUR10,000 bequest subject to a 40% inheritance tax yields EUR6,000 after tax. Conversely, a tax-free gift of the same amount has a relative value 1.67 times greater [1/(1 – 0.40)], or EUR10,000 = 1.67 (EUR6,000), equating to EUR10,000 versus EUR6,000.

Annual exclusions or tax-free allowances offer yearly opportunities for tax-free wealth transfers that can accumulate significant tax savings when multiplied over multiple recipients, multiple donors (e.g., husband and wife), and multiple years. If these exclusions expire each tax year and do not roll over, failing to utilize them means lost value. Thus, families aiming for wealth transfer should consider early gifting programs to maximize these annual exclusions.

Taxable Lifetime Gifts

Even when a lifetime gift is taxable, there may still be value in making the gift instead of leaving it in the estate for taxation as a bequest. The advantage can be quantified as a ratio comparing the after-tax future value of the taxable gift to that of a bequest, or

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{\left[1 + r(1 - t_g)\right]^n (1 - T_g)}{\left[1 + r(1 - t_e)\right]^n (1 - T_e)} \tag{7}$$

Here, T_g represents the gift tax rate, and it's assumed that the recipient pays this tax, not the donor. Alternative scenarios are discussed later. When *after-tax returns for both the gift and the bequest are identical*, the value of a taxable gift simplifies to $(1 - T_g)/(1 - T_e)$. Therefore, if gift tax rates are lower than estate tax rates, gifting can be more tax efficient. For instance, in the United Kingdom for tax year 2023/24, lifetime

gifts over GBP325,000 are taxed at 20%, whereas bequests over the same amount are taxed at 40%. If the bequest is made to a spouse or registered civil partner, the applicable tax rate is zero.

Thus, each pound gifted has a relative value of 1.33 compared to a bequest (1.33 = (1 – 0.20)/(1 – 0.40)). Australia is another example in which the tax consequence of lifetime gifts can be less than the tax consequence of a testamentary bequest.

Even when *gift and estate tax rates are identical*, value creation opportunities exist. In the Netherlands, for example, both gifts and bequests follow the same progressive tax rate, ranging from 10% to 40% based on the relationship between the donor and the recipient of the gift. These taxes are applicable to the value of assets received from individuals who were residents of the Netherlands at the time of the gift or their death. The tax liability falls on the recipient. The specific tax rates for gift and inheritance taxes are found in Exhibit 3.

Exhibit 3: Gift and Inheritance Tax Rates by Recipient Category in the Netherlands in 2023

Recipient Category	Tax Rate for Gifts and Bequests up to EUR138,641	Tax Rate for Gifts and Bequests above EUR138,641
Partners and children	10%	20%
(Great)grandchildren	18%	36%
All other recipients	30%	40%

In such a progressive tax system, distributing wealth in smaller amounts over time can subject each transfer to a lower tax rate compared to a single, large bequest upon death.

The choice between a lifetime gift or a testamentary bequest can also be influenced by the relative tax rate on investment returns accruing to either the donor or the recipient. For example, a Japanese family is considering a JPY30 million gift. Of this, JPY18 million is tax free, but the remaining JPY12 million faces a steep 50% gift tax rate. This rate is the same for a bequest, so there is no tax advantage in terms of transfer rates. However, if the gift recipient has a lower marginal tax rate on investment returns—say, 20%—compared to the estate's 50% marginal tax rate, then a tax advantage still exists.

Over a ten-year horizon, the asset would generate 25.6% more wealth if gifted to the recipient than if it had stayed in the estate and been transferred via bequest taxed at 50%:

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}}$$

$$= \frac{[1 + 0.08(1 - 0.20)]^{10}(1 - 0.50)}{[1 + 0.08(1 - 0.50)]^{10}(1 - 0.50)} = \frac{0.9298}{0.7401} = 1.256$$

Location of the Gift Tax Liability

The previous discussion assumes that the gift tax is paid by the recipient, a practice in countries like Colombia, Czech Republic, and Japan, among others. Who pays the gift tax matters, particularly when it comes to cross-border gifts.

First, in cross-border gifts, both donor and recipient might face taxes in their home countries. Second, if the tax burden falls on the donor's estate rather than the recipient, the tax advantage of gifting over bequeathing increases. Paying the tax from the donor's estate reduces its size, thereby lowering the eventual estate tax, especially

if the recipient's estate faces lower or no taxes. Consequently, gifting becomes more tax efficient when the donor pays the gift tax. The relative after-tax value under this condition can be calculated with certain assumptions.

The relative after-tax value of a taxable gift, when the donor pays the gift tax and the recipient's estate is not taxable, can be expressed as follows, given the assumptions that $t = t_g = t_e$:

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{[1 + r(1 - t)]^n[1 - T_g + T_g T_e]}{[1 + r(1 - t)]^n(1 - T_e)}$$

Here, the last term $T_g T_e$, in the numerator represents the tax advantage from reducing the value of the taxable estate by the amount of the gift tax paid. This essentially acts as a partial gift tax credit that equals the size of the gift multiplied by $T_g T_e$.

CASE STUDY

Double Taxation

Boris Banko is a US citizen of Lithuanian descent whose only asset at death was a USD4,000,000 investment account. Upon this death, the account was to be transferred fully as an inheritance to his daughter, Lana, who lives in the United States. However, in his will and testament, Boris divided all his assets between Lana and his son, Eli, who lived in Lithuania. Lana is the executor of the estate.

Lithuania has a 20% gift tax it imposes on recipients but no inheritance tax. In addition, the applicable US gift tax for this sum is 40%. The United States does not have inheritance tax. If Lana accepted the full value of the bank account as an inheritance and gifted half the assets to her brother in Lithuania, she would pay a 40% gift tax in the United States, and Eli would pay an additional 20% gift tax in Lithuania. As the executor of the estate, Lana could instead initiate probate and waive her right to take all the assets in the investment account, giving half of the asset to her brother as an inheritance. Such a transaction would not trigger any inheritance or gift tax consequence in either the United States or Lithuania.

1. How much value did Lana create by not accepting the full inheritance?

   Solution:

   Lana avoided receiving half of the USD4,000,000, or USD2,000,000, which escaped 40% tax in the United States (payable by Lana) and 20% tax in Lithuania (payable by Eli), for a total gift tax rate of 60%. Had Lana structured the transfer to Eli as a gift rather than a direct inheritance, the after-tax value of the transfer would have been 40% of the amount had it been structured as an inheritance.

   $$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{(1 - 0.20 - 0.40)}{1 - 0} = 40\%$$

   Lana therefore created USD2,000,000 × (1 – 40%), or USD1,2000,000 of value.

CASE STUDY

Reducing the Value of Estate Through Gifts

Akio and Haruko Tochigi, a married couple, have an estate that is worth JPY500 million and subject to an estate tax of 45%. As Akio is terminally ill and expects to live just one year, the couple is considering the transfer of JPY100 million to their child as either an inter vivos gift or a testamentary bequest. The gift tax and estate tax are both 45%, both of which are paid by the estate. The assets would earn 3% over the year regardless of owner and be subject to a uniform 40% tax rate on investment returns.

The after-tax value of the gift would be JPY75.25 million, consisting of a JPY55 million after-tax amount and a JPY20.25 million partial gift credit, thanks to reducing the taxable estate size. In contrast, the bequest would amount to JPY55 million, offering no partial gift credit.

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{[1 + r(1 - t)]^n [1 - T_g + T_g T_e]}{[1 + r(1 - t)]^n (1 - T_e)}$$

$$= \frac{JPY100\ [1 + 0.03\ \times\ (1 - 0.40)]^1\ [1 - 0.45 + (0.45 \times 0.45)]}{JPY100\ [1 + 0.03 \times (1 - 0.40)]^1 \times (1 - 0.45)}$$

$$= \frac{JPY100\ [1.018]^1\ [0.7525]}{JPY100\ [1.018]^1 \times (0.55)} = 1.3682$$

The ratio of JPY75.25 million to JPY55 million is approximately 1.37, emphasizing the gift is 37% more valuable than then bequest. Had the tax rates on investment returns been lower for the child, the relative value of the gift would be even greater, and the economic impact of the difference would grow as the time between the gift and bequest grows due to compounding.

Exhibit 4 illustrates the after-tax outcomes of the JPY100 million gift in the context of the Tochigis' larger estate of JPY500 million estate, most of which is taxable.

Exhibit 4: Illustration of Gift versus Bequest When Donor Pays Transfer Tax

	Gift	Bequest
Gift	100	0
Gift Tax	45	0
Total Disbursement	145	0
Taxable Estate	*355*	*500*
Estate Tax	160	225
Net After-Tax Amount	195	275
After-Tax Estate plus Gift	*295*	*275*

Note: Figures are in millions of JPY and rounded to the nearest million.

The gifting strategy reduces the taxable estate to JPY355 million and yields an after-tax sum of approximately JPY295 million, compared to JPY275 million for the bequest route. The strategy saves around JPY20.25 million in taxes, calculated

as JPY100 million × 0.45 × 0.45. Although the tax rates on gifts and bequests are equal in this example, there is still a tax benefit to the gift by reducing the size of the taxable estate.

In certain cases, both the donor and recipient could be liable for transfer tax: The primary liability for the transfer tax may lie with the donor, but a secondary liability may rest on the recipient if the donor is unable to pay. For instance, the United Kingdom assigns gift tax liability to anyone with a vested interest in the gift. This dual liability can impact the recipient, particularly if the gifted asset is illiquid. If the recipient lacks other liquid assets to pay the tax, they may encounter liquidity issues and, in severe cases, risk asset seizure by tax authorities. In other instances, the tax liability may revert back to the donor.

CASE STUDY

Gift and Estate Taxes

Philippe Zachary, a 50-year-old French resident, is working with his wealth manager, Pierre Robé, to create a wealth transfer plan and to transfer wealth to his second cousin, Etienne. Phillippe has never been married and has no children.

The applicable tax code permits Zachary to make annual tax-free gifts up to EUR20,000 until he turns 70. Gifts exceeding this amount are subject to a 30% tax, payable by the recipient. Once Zachary reaches age 70, the tax rate on gifts increases to 60%. Bequests from his estate are also likely to be taxed at a 60% rate. Gifts that exceed the EUR20,000 annual exclusion and are made before Zachary turns 70 qualify for a 50% tax relief, effectively reducing the tax rate to 30%, payable by the recipient.

Etienne benefits from a 20% tax rate on investment income due to his low income, while Zachary is taxed at 48% on his investment income. Zachary is contemplating gifting assets anticipated to yield a 6% return annually for the next 20 years.

1. Zachary makes a EUR20,000 gift to Etienne today. Considering the first tax-free gift associated with the annual EUR20,000 exclusion, how much of his estate will Zachary have transferred on an inflation-adjusted basis in 20 years without paying estate tax?

   Solution:

   In 20 years, the future value of an EUR20,000 gift made in the first year equals EUR20,000 × $[1 + 0.06(1 - 0.20)]^{20}$ = EUR51,080.56.

   Note that, although the gift was not subject to a wealth transfer tax, its subsequent investment returns are nonetheless taxable at 20%.

2. What is the relative value of an EUR20,000 gift today to a bequest in 20 years? How does the value of this immediate EUR20,000 annual tax-free gift compare to the value of a bequest of the same amount after 20 years?

   Solution:

   The relative value of the tax-free gift compared to the bequest is:

$$V_{TaxFreeGift} = \frac{FV_{TaxFreeGift}}{FV_{Bequest}} = \frac{[1 + 0.06 \times (1 - 0.20)]^{20}}{[1 + 0.06 \times (1 - 0.48)]^{20}(1 - 0.60)} = \frac{2.5540}{0.7395} = 3.45$$

   In this case, the gift is substantially more tax efficient for three reasons. First, the gift incurs no tax, but the bequest is taxed heavily. Second, investment returns on the gifted amount will be taxed at a lower tax rate for Etienne than if the assets remain in Zachary's estate. Third, given the 20-

year time horizon, these differences have a long time to compound, further highlighting the tax efficiency of the gift.

3. If Zachary decides to give a gift larger than the EUR20,000 exclusion, thus incurring gift tax, how does the value of this taxable gift compare to the after-tax value of a similar sized bequest if it were made 20 years later?

   Solution:

   Here, the gift tax liability of 30% falls on the recipient and stands at 30%, which is half of the estate's 60% estate tax rate. The comparative value of the tax-free gift vis-à-vis a bequest subject to inheritance tax is:

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{[1 + r(1 - t)]^n [1 - T_g + T_g T_e]}{[1 + r(1 - t)]^n (1 - T_e)}$$

$$= \frac{[1 + 0.06 \times (1 - 0.20)]^{20} \times [1 - 0.30]}{[1 + 0.06 \times (1 - 0.48)]^{20} \times (1 - 0.60)} = \frac{1.7878}{0.7395} = 2.42$$

   Despite being taxed, the gift retains a significant after-tax value compared to the bequest. This is due to the lower gift tax rate and the asset's placement in a tax-advantageous location (i.e., with Etienne) over an extended time period.

   As a result of these transactions, the overall value of Zachary's estate is also reduced.

Spousal Exemptions and Deemed Dispositions

In countries that have estate or inheritance taxes, such as South Africa, the United Kingdom, and the United States, assets can be transferred to a surviving spouse at death without triggering transfer taxes. Additionally, these countries often provide tax exclusions for smaller estates.

For instance, for tax year 2023/24, the United Kingdom permits tax-free transfers for estates valued below GBP325,000. Typically, couples have the opportunity to use two such exclusions: one upon the death of each spouse. It is generally advisable to leverage the first spouse's exclusion to transfer assets to beneficiaries other than the surviving spouse.

Take the case of Will and Samantha Quackenbush, who have a GBP700,000 estate. If Will dies first and bequeaths the entire estate to Samantha tax free, they miss the chance to transfer GBP325,000 out of the taxable estate to the next generation. By transferring this amount to the next generation upon Will's death, there is no additional inheritance tax obligation, and Samantha's taxable estate drops to GBP375,000. Utilizing the first spouse's tax exclusion can preserve the opportunity for tax-efficient wealth transfer.

Rather than impose an estate or inheritance tax on the amount of capital bequeathed at death, some countries treat bequests as deemed dispositions, that is, as if the property were sold. Australia and Canada are examples of jurisdictions with deemed disposition regimes. Neither of these countries impose gift taxes, making it potentially advantageous to gift highly appreciated assets that are not likely to be liquidated during one's lifetime.

QUESTION SET

1. Discuss how to address issues of asset rights and separation for cohabitating partners.

   Solution:

   The legal rights afforded to cohabitating partners vary widely across jurisdictions. Absent legislation, generally there are no automatic rights conferred to partners unless provided in common-law rules or specific contracts and arrangements between the cohabiting partners. A cohabitation agreement can help define the financial arrangements for separation, alimony, support after separation, and the disposition of assets at death. Proper estate planning and wills are important for cohabiting partners particularly when there are no laws or legislation delineating the rights and obligations of partners.

2. Would an across-the-board 10% reduction in tax rates affect the relative value of a tax-free gift compared to a bequest?

   A. No.

   B. Yes, the relative value of the gift would decrease.

   C. Yes, the relative value of the gift would increase.

   Solution:

   B is the correct response. Recall the equation for the relative value tradeoff:

   $$RV_{TaxFreeGift} = \frac{FV_{TaxFreeGift}}{FV_{Bequest}} = \frac{\left[1 + r\left(1 - t_g\right)\right]^n}{\left[1 + r(1 - t_e)\right]^n (1 - T_e)}$$

   Tax rates appear twice in the denominator. Therefore, a universal tax cut would have a compounded effect, making it more impactful compared to its influence on the tax-free gift.

3. Jane and John, parents residing in Country A, intend to transfer USD100,000 to their son Tim, who lives in Country B. Country A has a gift tax rate of 15%, and Country B has a rate of 20%. A double-taxation treaty exists between Country A and Country B, allowing for the option to pay taxes either in the country of the giver or the recipient. Calculate the net amount Tim would receive under each taxation option and choose the most favorable option for Tim:

   A. Paying taxes in Country A: USD85,000

   B. Paying taxes in Country B: USD80,000

   C. Neither A nor B offers a more favorable outcome.

   Solution:

   The best alternative is A. Tim would receive a larger net amount of USD85,000 if the taxes are paid in Country A.

   Paying taxes in Country A:

   - Tax amount in Country A: 100,000 × 0.15 = USD15,000

- Net amount Tim receives: 100,000 – 15,000 = USD85,000

Paying taxes in Country B:

- Tax amount in Country B: 100,000 × 0.20 = USD20,000
- Net amount Tim receives: 100,000 – 20,000 = USD80,000

4. Juliet and Isaac reside in Country A and intend to gift their son Patrick (also a citizen of Country A) USD1,000,000 next year. Patrick has a choice of living in either Country B or Country C.

   Country A taxes citizens on their worldwide income, and its gift tax rate is 25%. Country B taxes gifts at 40%. The tax treaty between Country A and Country B calls for the credit method, whereas the treaty between Country A and Country C calls for the deduction method.

   What would the gift tax rate need to be in Country C to be indifferent between Patrick's residency choice with respect to receiving this gift?

   Solution:

   We want to solve for the gift tax rate in Country C, c, such that $Max(0.25, 0.4) = 0.25 + c - 0.25 \times c$, which reduces to $0.40 = 0.25 + c - 0.25 \times c$. The answer is 20%. For Patrick to be indifferent in his choice, the gift tax rate in Country C has to be 20%.

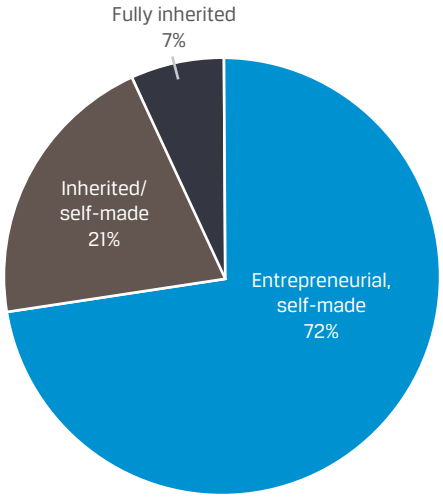
ENTREPRENEURS AND BUSINESS OWNERS

4

☐ discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of entrepreneurs and business owners

Entrepreneurship is a prime driver of wealth creation: Approximately 73% of the ultra-high-net-worth population have entirely self-made wealth, whereas 21% possess wealth that is partially self-made and partially inherited according to research by Altrata and shown in Exhibit 5. Roughly 7% count inheritance as their primary source of wealth. Similar trends exist among high-net-worth families, although less pronounced. Consequently, the unique human capital characteristics outlined below are widespread.

Exhibit 5: Source of Wealth for the Global Ultra-High-Net-Worth Population



Source: World Ultra Wealth Report, 2023, Altrata.

Furthermore, according to Altrata, there is a distinction in wealth levels between entirely self-made entrepreneurs and inheritors of wealth among those with an ultra-high net worth: Entrepreneurs have the highest median wealth, amounting to approximately USD78 million, whereas the mean inherited wealth is USD52 million.

This is also reflected in the extended family balance sheet for entrepreneurs and private business owners that differs substantially from that of the typical wage earner. An entrepreneur's human capital, an implicit asset, is a function of the success of their business. While the value of the business is initially low during the startup phase, both business and human capital values can rise rapidly if the business grows. This increase in human capital mimics equity, and given its close linkage to business value, is in contrast with wage earners whose human capital is more bond-like due to their stable earnings. Entrepreneurs also face greater non-systematic, idiosyncratic risk in their human capital driven by heavy investments and often undiversified investment in their specialized human capital.

Some successful private businesses have a long history and multigenerational ownership, whereas others, particularly in sectors like technology and social media, may achieve success rapidly under a single entrepreneur.

The wealth of entrepreneurs and their families is often concentrated in key assets that have been instrumental in generating their wealth. These concentrated positions typically fall into three categories: (1) wholly owned or closely held private businesses, (2) publicly traded stocks, and (3) commercial or investment real estate. For private businesses, the concentration can result from pre-IPO holdings or long-term family-owned operations, often involving shares held by multiple family members or generations. Real estate positions usually show similar concentration patterns. Often, real estate holdings are linked directly to closely held private businesses. Public equity concentration can arise from IPOs, from sales of private businesses to public firms, or as stock-based compensation from long-term employment at publicly traded companies.

Concentrated Positions

The definition of a concentrated position varies and often depends on the specific nature of the asset in question. A 10% ownership position in a small-cap stock might be considered a concentrated position, whereas a similar position in a liquid large-cap

stock might be considered risky but is not treated as a concentrated position for our purposes. Certainly, owning 10% of the shares in a public company often triggers reporting obligations, but for the purposes of the discussion, such legal, reporting, and compliance matters are not addressed here.

In this reading, a **concentrated position** describes a holding that, due to its low tax basis and implicit large potential capital gains or personal association with the client, inhibits the development of an efficient, diversified portfolio. In the wealth-management industry, most advisers consider 25% of a client's net worth tied up in a position, such as a privately held business, as very concentrated, although this proportion can vary.

When advising clients on concentrated positions, wealth managers evaluate both associated risks and tax implications, focusing on three key aspects. First, there is wealth concentration: For instance, a Swedish entrepreneur with a net worth of SEK60 million may have SEK50 million tied up in her business. Second, the low cost basis and high unrealized capital gains make diversification expensive. If the business value has risen to SEK50 million from nearly zero, selling could incur up to 25% in capital gains tax, decreasing her net worth by approximately 20%. Third, risk management complexities make it crucial to strategize carefully to maintain both wealth and tax efficiency.

Risks of Concentrated Positions

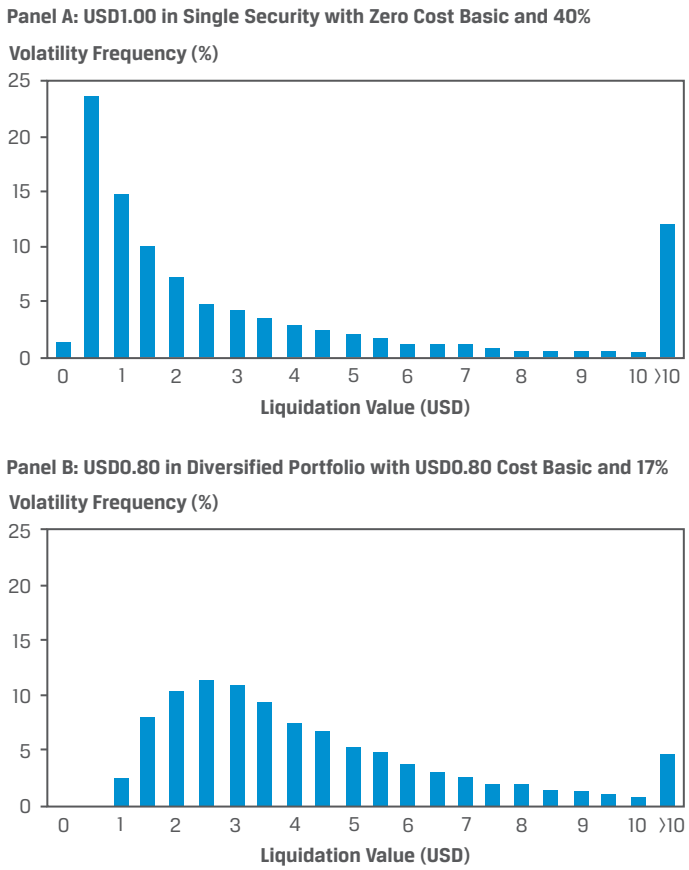
Owners of concentrated positions face systematic risk and non-systematic risk, which can be company-specific or property-specific risk. Private companies tend to be smaller and less liquid than public companies, may have a more limited operating history, may have an undiversified business mix, may have more constrained access to financing, and may have difficulty attracting high-quality management personnel due to family ownership. Consequently, their access to financing may be more constrained. These risks, alone or in combination, typically make a concentrated position in a family-owned company much riskier than a similar-sized position in a publicly traded company.

While systematic risks are unavoidable, even in a diversified portfolio, concentrated holdings introduce non-systematic risk specific to a company's operations and business environment. This risk compromises portfolio efficiency by limiting diversification, and when coupled with systematic risk, contributes to the total risk of the portfolio. Concentrated positions are inherently more volatile than otherwise equivalent diversified positions with similar betas, reducing median ending wealth over time. Recall that systematic risk and non-systematic risk jointly determine total risk. Similarly, total risk consists of market risk and idiosyncratic risk.

Exhibit 6 compares the distribution of potential outcomes using Monte Carlo analysis of two alternatives.

1. Hold a concentrated position with an expected return of 10%, 40% volatility, and zero cost basis and pay capital gains tax at the end of 20 years.
2. Sell the concentrated position today, pay 20% capital gains tax today, reinvest the after-tax proceeds in a diversified portfolio with the same 10% expected return by lower 17% volatility, and pay capital gains tax at the end of 20 years.

Exhibit 6: Monte Carlo Analysis of Holding a Security versus Outright Sale of a Security: Probability Distribution of After-Tax Liquidation Value



Measure	A	B
Expected final value	USD5.3	USD4.2
Median value	USD1.6	USD3.3
Probability of USD1 or less	39%	2%
Probability of USD2 or less	57%	21%

Note: Annual expected return = 10%; dividends on stock = 0; dividends on diversified portfolio = 1.2%; horizon = 20 years; terminal liquidation.

Source: Stein (2001).

Exhibit 6 demonstrates the diversification strategy has a 2% chance of losing money after taxes, whereas holding the concentrated asset has a 39% chance. Although a tax minimization strategy may seem appealing, it is not necessarily optimal: Higher volatility can lead to larger losses. Moreover, although the higher positive skew creates a higher expected value for the single stock, the median outcome is much higher for the diversified portfolio. As we shall see below, this analysis is influenced by a variety of other factors, such as psychology and legacy.

Property-specific risk is a form of non-systematic risk unique to a particular real estate investment. While it is narrower in scope than company-specific risk, it is still related to the potential for the asset's value to decline due to events that are property specific and don't impact the broader real estate market. For example, the discovery of an environmental liability could significantly diminish the value of a specific property, even while the general real estate market and similar assets appreciate.

Concentrated positions in privately owned businesses and investment real estate are generally illiquid. Unlike publicly traded stocks, private business equity does not have an easily accessible market. Owners must find potential buyers, who may assess the company's value differently. The sale price largely depends on how the position is exited, the selling strategy, and identity of the buyer. Consequently, quickly liquidating private company shares to pay unforeseen expenses is challenging. Similarly, direct ownership in investment real estate is illiquid. Finding a buyer may take some effort, and various classes of potential buyers may assign divergent values to a given property.

To effectively manage the risks associated with concentrated positions in private businesses, public stocks, or real estate, wealth managers assist clients in developing targeted risk management objectives that aim to avoid, mitigate, transfer, or accept these risks. Objectives associated with managing their risks typically fall into five categories:

- Reduce total risk: Concentrated positions in private businesses often constitute a large portion of a family's extended balance sheet. The usual aim is to mitigate both systematic and non-systematic risks that influence the total risk to the portfolio.
- Address idiosyncratic risk: While the intent may be to reduce total risk, psychological factors may discourage clients from reducing idiosyncratic and investment-specific risk, such as divesting a poorly performing family business. Wealth managers should identify and communicate the implications of retaining idiosyncratic risk.
- Generate liquidity: Wealth owners often face spending requirements that surpass their liquid cash income. Generating supplemental income becomes crucial when holding illiquid assets like private company shares that are difficult to convert into cash for unplanned expenses.
- Manage tax obligations: Tax considerations, often arising from low-cost cost-basis assets with large unrealized gains, can be so significant that managing them can become an investment objective. Various structures, transactions, and strategies can manage these tax liabilities.
- Transfer wealth: For privately owned businesses that define a family's identity, the goal is often to transfer ownership within the family or create a legacy for future generations. In more detached ownership scenarios, the focus may shift to fulfilling philanthropic objectives.

Goals-Based Planning with Concentrated Positions

Goals-based planning, encountered earlier, integrates psychological elements into asset allocation by helping advisers highlight to their clients the consequences of overly risky portfolios, especially those with concentrated asset positions. Chhabra (2015) advocates for this approach, as it matches investment objectives and corresponding assets into distinct "risk buckets."

- The *personal risk bucket* focuses on maintaining essential lifestyle spending and protecting against the risk of lifestyle degradation. It primarily invests in low-risk assets, such as bank deposits or government bonds, yielding below equity market returns. The primary residence belongs in this personal risk bucket because it belongs to lifestyle preservation.
- The *market risk bucket* aims for a high probability of maintaining the client's current lifestyle. It allocates to stocks and bonds, targeting average risk-adjusted market returns.
- The *aspirational risk bucket* targets significant wealth growth but comes with a higher risk of capital loss. It includes investments in privately owned businesses, concentrated stock positions, real estate, and alternative assets.

This framework allows wealth managers to discuss investment risks with clients, specifically with those with concentrated assets, and serves as a reference for decisions on selling or monetizing positions. One metric to consider in the goal-based framework is whether the after-tax proceeds from monetization, combined with other personal risk bucket assets, will cover lifetime spending needs. This amount is the owner's primary capital and comprises allocations to his or her personal and market risk buckets.

To determine the optimal timing for selling or monetizing a concentrated asset position, such as a privately held business, wealth managers should discuss five crucial questions with the owner:

1. What are the projected lifetime expenditures and aspirations after selling or monetizing post-sale or monetization of the concentrated asset?
2. How much immediate capital is needed to confidently fund these lifetime expenditures without risk of financial shortfall?
3. What is the current market value of the concentrated position? Various valuation approaches may yield significantly different values.
4. Does the value of the concentrated asset, under any available monetization strategies, sufficiently bridge the gap between the owner's existing capital and the required primary capital?
5. What is the current market value of all liquid and other assets that the client holds outside of the concentrated position?

For owners of concentrated assets, a sale or monetization should at least meet their primary capital requirements. Goals-based planning is equally effective for clients with businesses, real estate, or concentrated stock holdings. This strategy allows wealth managers to first identify each client's concentration risk and then develop a framework to evaluate if a sale or monetization will achieve financial objectives. Successfully doing so may incentivize the owner to confront the emotional hurdles of selling or monetizing the asset.

CASE STUDY

A Business Owner and the Concentrated-Position Decision-Making Process

Fred Garcia, a 60-year-old CEO of an aircraft parts business company he founded 30 years ago, consults his wealth manager, Bill Wharton, for advice on his assets, valued at USD50 million. This consultation comes after Garcia's son, initially expected to inherit the business, chose a different career path, prompting Garcia to consider selling or monetizing his business. Garcia's assets include:

- a business worth USD40 million,
- investments in commercial real estate worth USD5 million,
- an equity and bond portfolio worth USD3 million,
- cash and short-term Treasuries held in different accounts worth USD1 million, and
- an unmortgaged primary residence worth USD1 million.

Wharton suggests categorizing Garcia's assets into three risk buckets and aligning them with corresponding investment objectives for a comprehensive financial assessment, as shown in Exhibit 7.

On an aggregate basis, these risk buckets are distributed across:

- personal risk, USD2 million, 4%;

- market risk, USD3 million, 6%; and
- aspirational risk, USD45 million, 90%.

Exhibit 7: Wealth Distribution Shown in Risk Buckets, All Values in Millions of USD

"Personal" Risk 4% Protective Assets		"Market" Risk 6% Market Assets		"Aspirational" Risk 90% Aspirational Assets	
Primary residence (unmortgaged)	1	Equities	1.5	Family business	40
Cash/short-term treasury bonds and notes	1	Intermediate- and long-term fixed income	1.5	Commercial real estate	5
Total	**2**	**Total**	**3**	**Total**	**45**

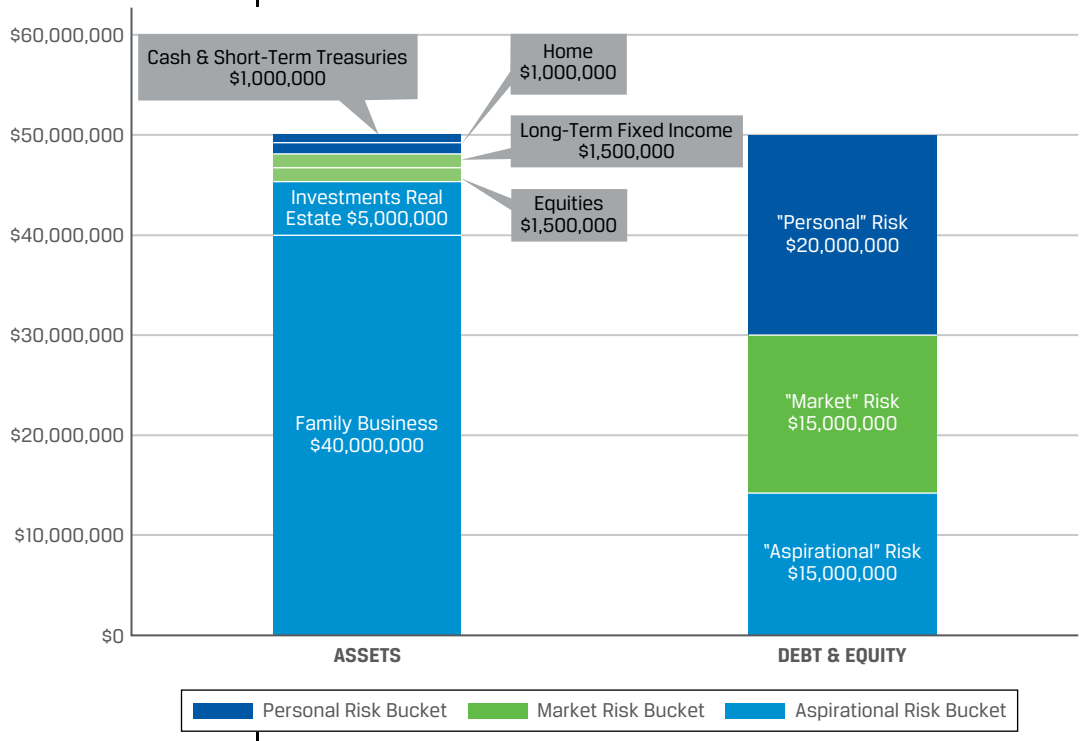
After evaluating Garcia's projected lifetime expenses and accounting for possible market shocks, tax hikes, inflation, and unexpected longevity, Garcia and Wharton conclude that a primary capital requirement of USD35 million would sufficiently maintain Garcia's lifestyle with minimal risk of depleting funds. Of this, USD20 million can be allocated to the "personal" risk bucket and USD15 million to the "market" risk bucket. Subsequently, Garcia then discusses with Wharton potential strategies to monetize his business.

1. How would Garcia assess the potential of monetizing his business in a goals-based planning framework?

   Solution:

   After assessing Garcia's lifetime spending needs, including the projected lifetime expenditures and aspirations after monetizing the business, they calculate the capital required to sustain his lifestyle with minimal risk of depleting funds. Wharton allocates assets to Garcia's personal and market risk buckets, computing his primary capital requirement. Exhibit 8 shows an extended balance sheet categorized by risk buckets: personal risk assets in green, market risk assets in orange, and aspirational risk assets in blue. Notably, Garcia's need for primary capital of USD35 million, or spending needs for both personal and market risk buckets, significantly exceed the assets currently allocated to these respective risk buckets of USD5 million.

Exhibit 8: Garcia's Extended Balance Sheet



2. Utilizing the goals-based planning framework, what goals-based risk mismatch does Garcia currently face?

   Solution:

   Currently, Garcia has 90% of his total wealth, or USD45 million, invested in his family business and commercial real estate, both of which are categorized in the aspirational risk bucket. For someone over 60 years of age, this constitutes significant risk, particularly now that his son has opted out of taking over the business. Garcia's extended balance sheet reveals a risk mismatch: USD30 million of Garcia's USD35 million primary capital (represented in green and orange) are assets in the aspirational risk bucket (in blue). This misalignment signifies a concentrated business and real estate investment strategy that is too aggressive relative to Garcia's primary capital goals.

3. Explain how calculating Garcia's primary capital requirement should assist him Garcia in deciding whether to sell his business.

   Solution:

   Understanding this risk mismatch clarifies for Garcia that selling or monetizing his business needs to yield a minimum of USD30 million in after-tax proceeds. These funds would be allocated to his personal and market risk buckets, adequately covering his lifetime spending needs. In simpler terms, calculating Garcia's primary capital requirement should help Garcia realize that such a transaction could secure his financial independence.

Investment Constraints Related to Concentrated Positions

Owners of concentrated positions, including small and medium size privately held business, may face numerous constraints. These constraints include the following.

- Lack of liquidity: Early-stage businesses with unrealized growth potential may make it premature for entrepreneurs to relinquish control or sell as the business is expected to grow.
- Time horizon: Both the company's life cycle stage and personal factors, such as the age of the entrepreneur and other family members, as well as legacy goals, influence the investment time frame. A longer horizon can facilitate better tax management.
- Control: Owners may want to keep voting control personally or within the family. Alternatively, they may want to transfer control to key employees in recognition of service. This factor is especially relevant if the concentrated position is in real estate crucial to a business or for family enjoyment.
- Regulatory: Executives paid in shares may be contractually obligated to hold these shares for a defined period, aligning their incentives with the company's.
- Psychology: Emotional attachment to the original wealth source may deter risk reduction as an investment goal. Emotional ties to a privately owned business can also temper the desire to reduce risk.

These constraints can be so significant that they become primary or secondary objectives themselves, such as elevating tax management to an investment objective. More commonly, however, they are conditions that must be met while pursuing previously defined objectives.

Strategies for Managing Private Company Concentrated Positions

Most privately managed businesses fall into the "middle-market" category, generally valued between USD10 million and USD500 million, or generally equivalent values. These businesses often represent the majority of the owner's net worth. For example, a business owner might have a USD3 million investment portfolio but a USD30 million business. He is said to be "asset rich, but cash poor," as the more liquid assets in the investment portfolio amount to approximately 9% of his wealth. In some cases, real estate holdings may be a significant part of the business assets, or they could be separate and leased to the business.

The business often intertwines with the owner's personal identity and pride and is not just the owner's main income source. It is also a vehicle for achieving legacy and philanthropic goals. For many business owners, their personal and business lives are usually closely linked due to business demands. Their family and partners often play roles in the business. The business and its fortunes can change rapidly, and owners often underestimate their business's risks and overvalue their enterprises.

Many family-owned businesses have been inherited from previous generations. These businesses often get buyout offers that do not reflect the owners' valuation, making it hard to consider selling the company.

Although many owners lack an exit strategy or knowledge about selling or transferring the business, the valuation of the business remains a concern. Triggers pushing an owner to action can vary and include unsolicited offers, personal or family illness, or a family member's disinterest in joining the business.

Risk Avoidance by Selling the Business

Many business owners are asset rich but cash poor, with most of their net worth tied to their companies. This often leads them to seek liquidity for various needs, such as meeting cash flow demands or diversifying their investment portfolios. However, the existing shareholders, partners and other co-owners, usually offer little to no liquidity, and there may even be restrictions against selling shares to outside parties.

The most straightforward way to mitigate the risk of a concentrated holding in a private company is to sell that holding. The proceeds can be used to meet cash flow needs, be reinvested in a diversified portfolio, or serve a combination of both, depending on wealth management goals.

Selling a business involves considerations beyond just risk management. These may include the effort required to manage the business, heirs' willingness to take over, and various emotional and family factors. Wealth managers should be aware of these non-financial aspects before advising business owners on the risks of their concentrated positions.

Major tools for achieving full or partial liquidity in a private business are detailed in Exhibit 9.

Exhibit 9: The Financial Tool Set to Generate Full or Partial Liquidity from a Private Business

Category	Strategy	Type/Details
Equity Sale	Sale to third-party investor	▪ Strategic buyer
		▪ Financial buyer
		▪ Other investor
	Sale to insider	▪ Management, MBO
		▪ Employees, Employee Stock Ownership Plan
		▪ Sale or transfer to next generation of family
	Recapitalization	▪ Issuing or selling new shares
		▪ Increasing dividends (reduce internally generated capital)
	Divestiture of non-core assets	▪ Real estate holdings in the business
		▪ Exit investments and partnerships
	IPO	▪ Enter public markets for larger companies
Monetize without Equity Sale	Personal line of credit against company shares	▪ Puttable debt
		▪ Non-recourse loan
Debt	Senior debt	
	Mezzanine debt	▪ Subordinate to other debt including senior debt

Tax Consequences of Selling the Business

Selling a highly appreciated concentrated asset position often triggers a substantial capital gains tax, as these assets—family businesses—often have a low tax cost basis relative to their current market value. Despite this tax burden, Exhibit 6 shows that business owners are still likely to accrue more after-tax wealth from an outright sale due to reduced volatility drag on wealth accumulation.

The prospect of capital gains tax can be a psychological barrier for families who have built their wealth through years of calculated business risks. The tax impact can also be an economic barrier holding back the owner from selling the business until

some of the tax implications of selling the business are addressed. Therefore, deferring or even eliminating this tax is often a primary goal. Various strategies exist to achieve this objective. In certain jurisdictions like the United States, holding the asset until death allows heirs to benefit from a step-up in basis, which effectively resets the tax cost basis to the asset's market value at the time date of death, potentially avoiding capital gains tax. This can have an impact of intergenerational transfer of business with a low basis.

Timing risk can also be an issue. Selling an asset in multiple tranches can mitigate this risk, as can tax-loss harvesting strategies, which allow for the offset of capital gains with capital losses. In jurisdictions with progressive tax rates on capital gains, spreading out the recognition of capital gains can further reduce tax liabilities. Effectively, divesting a concentrated ownership structure incrementally over a period can mitigate tax impact and distribute the tax obligation more evenly over time.

PROGRESSIVE CAPITAL GAINS TAX SYSTEM

Consider a concentrated position with an unrealized capital gain of EUR500,000. The appliable capital gains tax rates are 5% for gains up to EUR25,000, 10% for gains between EUR25,001 and EUR50,000, and 30% for gains over EUR50,000.

Alternative 1, Immediate Outright Sale:

The tax liability totals EUR138,750 under a scenario of an immediate outright sale. The tax breakdown is as follows:

- The first EUR25,000 is taxed at 5%, resulting in EUR1,250.
- The next EUR25,000 is taxed at 10%, adding EUR2,500.
- The remaining EUR450,000 is taxed at 30%, contributing EUR135,000.

Alternative 2, Staged Sale Over 10 Years:

In this scenario, the total gain of EUR500,000 is spread out evenly over 10 years, or with an annual capital gain of EUR50,000 per year. The yearly tax amounts to EUR3,750, calculated as follows:

- The initial first EUR25,000 is taxed at 5%, or EUR1,250 annually.
- The remaining EUR25,000 is taxed at 10%, adding EUR2,500 annually.

Multiplied over 10 years, the total tax liability would be EUR37,500, far less than the EUR138,750 under the immediate outright sale scenario.

Staged diversification retains some level of concentrated risk until the asset is sufficiently liquidated. The seller retains a degree of control over the business. The remaining level of exposure varies with the rate at which the asset is sold. Wealth managers commonly use this approach to address the psychological resistance clients often have to selling all at once. However, the tax implications can be sizeable.

Sale Strategies

Many business owners and advisers mistakenly view equity monetization as a binary "sell or hold" choice and often as a one-off decision. However, staged or phased exit plans can be designed to create multiple liquidity events. Market conditions will

influence the viability of these strategies, which can fluctuate over time. Sale strategies typically satisfy two common objectives—mitigate risk and generate liquidity. Various sales strategies are discussed below.

- Strategic buyers, usually industry competitors, often offer the highest purchase price due to long-term investment perspectives and anticipated synergies.
- Financial buyers, like private equity firms, target stable, middle-market companies that have strong potential for value creation. By consolidating multiple such companies within the same industry or sector, they can form a lucrative conglomerate, which can command a premium when sold or taken public. Private equity firms often have shorter investment horizons than strategic buyers and have considerable incentive to increase sales and reduce costs. Sellers are often asked to retain an ownership and managerial interest in the firm that may add substantial pressure on them and existing staff to make those changes.
- MBOs involve selling the business to senior managers or key employees who are familiar with the business, just as the owner is familiar with the manager's skills. However, these employees may lack the entrepreneurial acumen needed to successfully run the business, which makes it difficult for them to secure financial backing from private equity firms or banks. As a result, the owner often has to finance a significant part of the sale through a promissory note, deferring a large portion of the purchase price to a later date and sometimes making the transaction contingent on the company's future performance. Late or missed payments and extended repayment terms can further complicate matters. Additionally, if the MBO fails and the owner has provided credit secured by the equity held by the management team, the company may revert to the original owner, thereby negating the transaction.

The risk of an MBO transactions can be significant.

- A *leveraged recapitalization* is a compelling strategy for middle-market business owners seeking to diversify their assets and reduce wealth concentration without fully exiting their business. In this arrangement, a private equity firm usually invests in equity and coordinates debt financing with senior and mezzanine lenders. The business owner, in turn, cashes out a portion of their stock, retains a minority ownership, and cedes overall control while often maintaining operational duties. This minority stake encourages the owner to continue business growth. Partnering with a well-resourced private equity firm allows the owner to concentrate on growth without the burden of personally guaranteeing any debt. This recapitalization serves as a "staged" exit strategy, enabling the owner to experience two liquidity events: an initial one and another typically within three to five years, as the private equity firm looks to liquidate its investment through various options such as an IPO, a strategic sale, or another recapitalization.
- In certain jurisdictions, laws incentivize business owners to sell shares to employees, effectively enabling employee ownership. For example, in the United States, a company can establish an *Employee Stock Ownership Plan* (ESOP), a qualified retirement plan that can purchase some or all of the owner's company shares. ESOPs offer a phased exit strategy, allowing owners to sell only a portion of their shares, diversify their holdings tax-efficiently, and retain company control. While ESOPs do have setup and maintenance costs, they can be an appealing option when feasible.

If the business generates robust cash flows and possesses unlevered assets available for leverage, one strategy is to redirect these cash flows to increase dividends or related capital distributions. To finance the business, it can rely on external private debt, mainly bank loans, assuming the business has borrowing capacity. Yet, this might bring about tax implications. Dividends and similar payouts often undergo double taxation in many areas, but methods are available to reduce this impact.

While these transactions effectively monetize assets, they may not initially reduce risk. After the initial liquidity event, the business owner holds a reduced equity stake and lowers asset concentration to some extent. If the owner finances the sale with debt or holds more highly levered equity, however, the added leverage from the recapitalization increases the risk linked to this smaller equity position.

An IPO is a possible option for companies in investor-favored industries with strong growth trajectories. While going public incurs substantial costs, the potential pricing valuation often outweighs them. However, the IPO process eliminates the privacy and the autonomy many successful entrepreneurs and business owners value. As the CEO of a public company, the owner faces intense scrutiny and must adhere to investors' short-term financial expectations. An IPO is generally not suitable for owners looking for a quick exit; instead, it serves as a growth financing mechanism for those planning to stay actively involved in the business for an extended period. Additionally, the size of the company needs to meet certain minimum requirements to make it attractive to investors and to make the IPO cost effective.

Sale or Gift to Family Member or Next generation

Owners of privately held businesses can transfer ownership to family members through tax-advantaged gifting strategies. These family members often lack the funds for a full cash offer and struggle to secure external financing, similar to senior managers in an MBO scenario. If a sale occurs, the owner frequently finances a large portion or even all of the purchase via a promissory note, effectively increasing leverage on their remaining equity. While gifting is a common method for generational ownership transition, it is usually not viable unless the owner has accumulated other significant assets outside of the business to maintain their lifestyle independent of the business.

The structuring of such ownership transfers among family members varies by jurisdiction and considers the business's legal and tax location; the family members' legal and tax residency; the business's size, valuation, and growth trajectory; and the existing ownership structure. These factors collectively influence the legal and tax implications of the transfer. Apart from financial advice, legal and tax advice is essential to ensure that the ownership transfer meets all legal requirements and taxation rules.

Considerations in Evaluating Different Sales Strategies

The value of a privately held company can vary based on the chosen exit or monetization strategy. Unlike public companies with established markets, private firms require a market to be created and potential buyers identified, driven by the potential buyers' valuation perspectives.

In evaluating different strategies, the objective should be to maximize the after-tax proceeds that are available to the business owner to reinvest as opposed to simply maximizing the sales price. Astute transactional tax planning and structuring is extremely important and can result in significant tax savings for the owner.

Typically, a majority of the sale price is paid upfront, but it is not uncommon for a portion to be deferred or conditional on future milestones, like an "earn-out" based on revenue or earnings targets. Thus, the final "sale price" should account for upfront, deferred, and contingent payments and their likelihood of being received. Consideration of after-tax proceeds is crucial in the decision-making process.

CASE STUDY

A Business Owner and the Concentrated-Position Decision-Making Process

Continuing with the example above, Fred Garcia, advised by his wealth manager Bill Wharton, determined that either selling the business to a strategic buyer or conducting a recapitalization would meet his USD35 million capital need. The firm engaged to evaluate the various exit options finds that:

- an impending capital gains tax hike is expected in Garcia's country next year,
- Garcia aims to allocate more time to his family,
- Garcia highly values his role as the CEO of an aircraft parts business, and
- Garcia's cost basis in the company is zero.

With additional capital, Garcia believes his company could triple earnings within a few years. The private equity firm shares Garcia's optimism about the potential growth of the company and is ready to extend debt financing to it on favorable terms.

Garcia decides on a recapitalization, receiving 80% of the USD45 million value of the company (including the real estate), or USD36 million, in cash from a private equity firm. Capital gains are taxed at the current 15% capital gains tax rate.

Garcia invests USD10 million of after-tax proceeds in personal risk bucket assets (such as cash, short-term fixed income, and treasury inflation-protected securities (TIPS)), and the remaining USD20.3 of after-tax proceeds is added to his market risk bucket assets (such as long-term fixed assets, equity, and alternative assets).

1. Discuss factors that favor a sale to a strategic buyer and which factors favor a recapitalization.

   Solution:

   Selling to a strategic buyer benefits Garcia by freeing him from daily operational stress, enabling more family time, and likely yielding him the highest immediate proceeds while avoiding upcoming tax hikes. Conversely, a recapitalization allows Garcia to keep his cherished CEO role and raises the capital needed for swift earnings and company value growth.

2. Calculate the (after-tax) amount monetized by the recapitalization and the value of Garcia's retained stake in the business immediately after recapitalization.

   Solution:

   The (after-tax) amount monetized by the recapitalization is calculated as follows:

   Firm valuation × Percent of equity sold × (1 − Tax rate) = USD45 million × 0.80 × (1 − 0.15) = USD30.6 million, which is the amount monetized. The value of Garcia's remaining 20% stake is USD45 million × 20% = USD9 million before any possible valuation discounts for the lack of control or limited marketability of the shares.

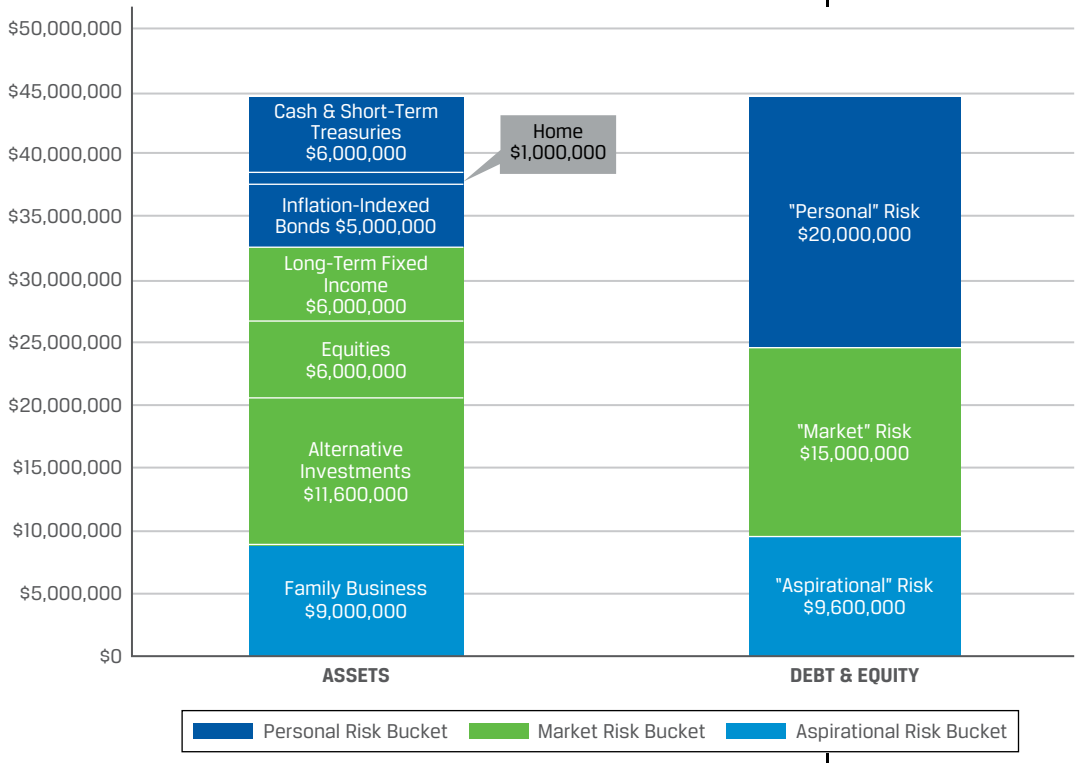
3. Explain the meaning of primary capital in this context. Evaluate whether the amount monetized, combined with his existing portfolio, meets Garcia's requirement for USD35 million in core capital. Justify your answer.

Solution:

The recapitalization will fulfill Garcia's primary capital requirements of USD35 million. After the transaction, his personal risk bucket will increase to USD12 million, consisting of the original USD2 million plus an additional USD10 million from the sale, totaling USD12 million. The market risk bucket will increase to USD23.6 million, consisting of the USD3 million stock and bond portfolio plus the remaining USD20.6 million from the sale, totaling USD23.6 million. Thus, Garcia's primary capital, the sum of the personal and market risk buckets, will be USD35.6 million, which is slightly more than his primary capital requirements.

Exhibit 10 shows the allocation of Garcia's wealth after the recapitalization with some assumed asset allocations of the invested proceeds.

Exhibit 10: Post-Leveraged Recap Extended Balance Sheet



This new allocation more than adequately covers Garcia's spending needs in both the personal and market risk buckets. Additional asset reallocation could move assets from the market risk to the personal risk bucket to further secure his personal spending needs, but considering the sales proceeds, this may not be needed in this specific situation.

Garcia's net worth on paper has declined 10.8%, from USD50.0 million to USD44.6 million, as a result of capital gains realization and portfolio realignment decisions. Moreover, Garcia's risk allocations based on the new after-tax portfolio value of USD44.6 million have changed: 27% to personal risk, 53% to market risk, and only 20% to aspirational risk.

4. Describe one possible management objective of the recapitalized company.

   Solution:

   With the capital the private equity firm may add through a debt infusion, if growth expectations are realized, the private equity firm may seek to exit from its investment by either going public or selling out to a strategic buyer several years down the road. This second exit could be very profitable for Garcia if growth expectations are indeed realized, and he continues to retain an ownership stake.

Mitigating and Transferring Risk

A primary objective in managing concentrated asset risk is reducing total risk, systematic risk, and/or unsystematic risk. Although sales strategies both avoid risk and generate liquidity, other strategies only focus on risk mitigation, and many do not generate liquidity. If the business owner has few cash flow needs, strategies that focus on risk mitigation only may be appropriate.

Completion Portfolio

To diversify a concentrated asset position, a wealth manager can create a completion portfolio, which is an asset allocation strategy. This index-based portfolio, designed using a quantitative optimization process, balances the concentrated asset with individual stocks or sector funds to mimic the investor's benchmark. The optimization process should:

1. account for both explicit and implicit assets on the family's extended balance sheet;
2. treat the family business as a distinct asset, considering its volatility and correlations with other assets
3. limit the portfolio weight of the illiquid family business to the equity retained; and
4. adjust the remaining liquid assets to form a portfolio that resides on an efficient frontier.

As a result, the desired outcome will offset high equity exposure from the illiquid family business by adopting a more conservative stance for the liquid portfolio. The allocation will favor risky assets that are either uncorrelated or negatively correlated with the family business over those highly correlated. Although asset allocation weights in the completion portfolio are usually constrained to be greater than zero, certain financial products enable long positions with short exposure.

For instance, the owner of a privately held IT company can achieve short exposure to the IT sector by taking a long position in an inverse exchange-traded fund (ETF) that tracks this sector. This strategy enables the owner to indirectly obtain short risk exposure through long positions.

CASE STUDY

Completion Portfolio

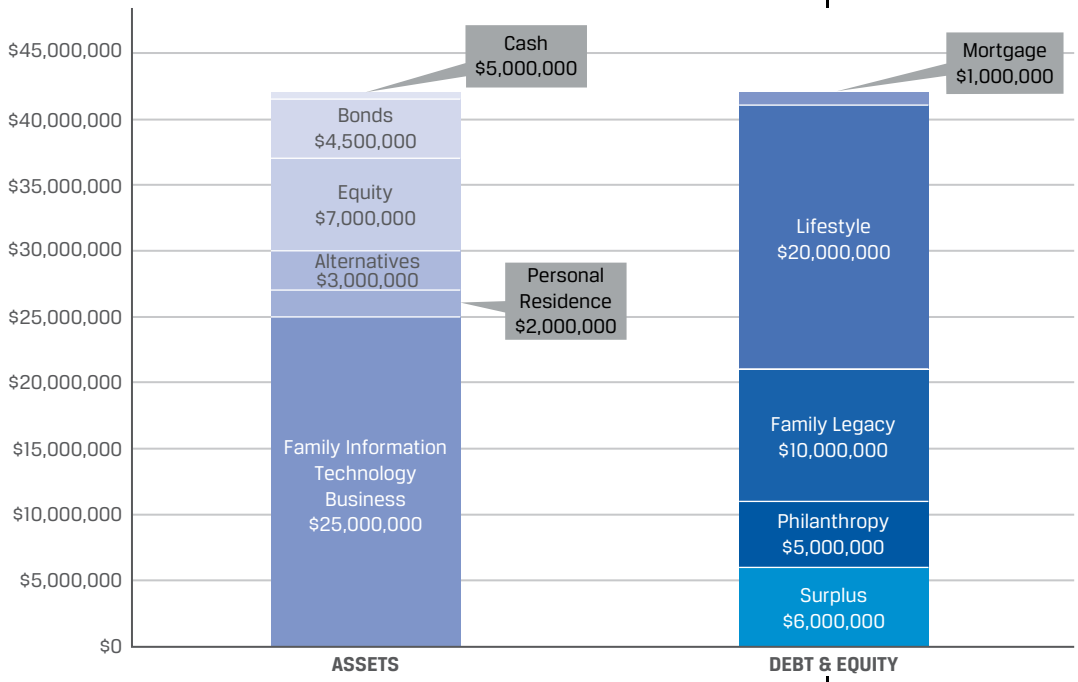
Joseph and Penelope Mancuso, based in San Francisco, operate an IT family business specializing in key inputs for silicon chip manufacturing, safeguarded by patented technology.

The business is valued at USD40 million with a cost basis of zero, and their equity stake's after-tax value is USD25 million. They own a personal residence valued at USD2 million. Through salary, dividends, and deferred compensation, they've also accumulated a liquid asset portfolio of USD15 million, as shown in Exhibit 11.

After consulting their wealth manager, they've calculated estimated amounts needed to meet their financial goals:

- USD20 million for lifestyle needs,
- USD10 million as inheritance for their four children, and
- USD5 million for charitable contributions.

Exhibit 11: The Mancuso Family Extended Balance Sheet



1. Describe the process of creating a completion portfolio for the Mancusos.

   Solution:

   The completion portfolio for the Mancusos will distribute the Mancusos' USD15 million in liquid assets in relation to their USD40 million extended balance sheet (home residence excluded). It will treat their USD25 million stake in the illiquid family IT business as a separate, fixed asset.

2. What is the Mancusos' current equity allocation?

   Solution:

   The Mancusos currently allocate 83.3% to equities when counting alternative assets in their portfolio as equity-like. The calculation is (USD25 million + USD7 million + USD3 million)/USD42 million.

3. Describe the stylistic allocations the optimizer might make within the completion portfolio.

Solution:

The completion portfolio will generally reduce the Mancusos' allocation to liquid equities and increase their investment in less risky liquid assets. It should purposely exclude investments in the IT sector given its likely high correlation with their family business. If permitted, the optimizer may significantly allocate to assets that are negatively correlated with the IT sector, such as inverse exchange-traded funds.

The completion portfolio can also be tax optimized on an ongoing basis. Initially, it is funded by partially selling off the concentrated position and then is rebalanced systematically using a quantitative model. This approach aims to minimize active risk against a benchmark while maximizing aggregate after-tax returns, mainly by realizing more capital losses than gains. These losses can then offset gains from the sale of the concentrated stock. Hence, the portfolio is managed on an aggregate basis. The strategy aims to match a broad-based index on a pre-tax basis and to outperform it after taxes.

Pairing a completion portfolio with a staged diversification strategy can gradually mitigate concentrated risk. While this approach does reduce firm-specific and total risk, it's less effective against systematic risk due to the portfolio's maintained beta exposure.

Strategies for Managing Concentrated Real Estate Positions

When a family's wealth predominantly stems from real estate—either through property development or ownership of undeveloped lands—various unique risks arise. These include concentration risk in the real estate sector, specific property risks, and the overarching issue of illiquidity given that real estate transactions can be involved, lengthy, and complex negotiations among private parties.

The real estate assets may either constitute the family's business itself, such as apartment buildings, hotels, or shopping malls, or serve as critical assets within the enterprise. These assets may be directly owned by the family, held in a separate corporate structure in which the family controls both the real estate and the operating business, or even encompass additional non-core assets like machinery, airplanes, boats, and secondary residences.

For short-term liquidity needs, owners might consider divesting these non-core assets as an alternative to selling equity in a privately owned business.

Like holdings in public or private equity, concentrated real estate positions often come with a low tax basis, making a sale potentially costly due to capital gains tax. Additionally, owners may not fully appreciate the unique risks tied to their properties, making an outright sale less appealing. To monetize these assets without selling, owners frequently opt for various debt and equity financing strategies. Common methods include mortgage financing: recourse or non-recourse, fixed or floating rate.

Different tax jurisdictions also offer unique real estate monetization techniques. For instance, many US public real estate investment trusts originated from developers who consolidated multiple properties into a portfolio and then went public by selling shares in that portfolio.

To diversify asset portfolios and generate liquidity without incurring a tax liability, investors frequently use real estate financing, mortgages, or similar private credit instruments as a technique to monetize a specific property. Here, the idea is to use the cash flow from the loan to monetize the built-up equity value in the property: the price appreciation.

For instance, a Norwegian investor with a high-quality, income-generating property held in a Norwegian company, valued at NOK 100 million and with a near-zero tax cost basis, would incur at outright sale a 22% tax if they sold the property. Corporate owners in Norway are taxed at a rate of 22% on both operating income generated from real estate and capital gains realized upon selling the property. This tax would leave the investor with NOK 78 million in after-tax proceeds but no share in future price appreciation.

An alternative is to secure a fixed-rate real estate loan against the property, setting the loan-to-value (LTV) ratio at a conservative 60%. This allows the investor to monetize NOK 60 million tax free. The loan repayments are offset by the net rental income.

The investor retains potential asset appreciation, and the leverage increases to 1.60:1 (NOK 160,000,000/NOK 100,000,000). The added leverage increases systematic risk, essentially trading off one type of risk for another.

Additionally, an interest-only loan with balloon payments can serve as another financing option, with the loan and rental income funding other investments. If structured as non-recourse borrowing against appreciated, income-generating real estate, it is a viable strategy for monetizing unrealized gains, retaining the upside potential, and potentially avoiding an immediate capital gain tax liability.

The attractiveness of these strategies depends on the level, volatility, and trend of interest rates as well as whether the debt is fixed or floating rate. They are most effective in stable financial environments, characterized by consistent interest rates and markets that show a long-term upward trend. Being in volatile periods underscores the necessity for investors to either amplify the assets they pledge as collateral against loans or to liquidate assets at a potential loss to maintain their liquidity. There is an element of added risk in volatile environments and with floating rate borrowings when evaluating these strategies.

STRATEGIES FOR MANAGING CONCENTRATED POSITIONS IN PRIVATELY HELD BUSINESS AND REAL ESTATE

Emma Gustafsson, the majority owner of a thriving grocery store chain, has a net worth of SEK250,000,000, 90% of which is invested in her company's shares and in unleveraged real estate leased to the stores. At 50 years old, she has accumulated some retirement assets and is vested in the Swedish pension schemes. Although focused on expanding her business, Emma is aware that her future retirement relies heavily on the sustained success of her company. She also recognizes the need for capital to fuel further growth.

1. Recommend two strategies that Emma might use to address this problem. Justify your response.

   Solution:

   Gustafsson can diversify her asset portfolio and fund growth initiatives through a personal line of credit against some of her company shares as collateral. She might also consider a real estate loan on the real estate she leases to her stores. She should preferably use non-recourse loans for downside protection. The cash generated through either of these transactions could lead to the creation of a more diversified asset portfolio while retaining ownership in the grocery business.

   By unlocking significant capital, she can invest to strengthen her existing business or to diversify her income sources. For reinvesting in her grocery chain, she could use the capital to expand to new locations, upgrade technology infrastructure, or broaden her product range, enhancing her market share and revenue potential. Alternatively, Emma could acquire a business

that either complements her grocery stores or diversifies her risk exposure to the consumer discretionary and non-discretionary sectors. Initiating a logistics or food distribution arm could offer vertical integration benefits but less diversification. Entering a different industry like renewable energy could serve as a hedge against grocery sector risks.

Psychological Considerations

Clients face a variety of psychological considerations related to their concentrated positions whether the client is a business owner or employee of a business (discussed more fully below). These considerations are often constraints or obstacles to dealing with concentrated positions. Some common rationalizations that business owners have for not reducing their concentrated risk include:

- "This business made my family wealthy. Why would I diversify it or sell it?"
- "This business is part of our family identity."
- "My family members work for or depend on the business."

Some common rationalizations that business owners have for not reducing their concentrated risk include:

- "It would be terribly disloyal for me to sell the stock after having worked at the company for so many years and the company treated me so well. What would my former colleagues think of me?"
- "My peers will look down on me if I sell the stock."
- "My husband picked and owned this stock for many years, and he made me promise before he died that I wouldn't sell it."
- "I have a duty to pass on ownership of the business to subsequent generations."

Advisers need to identify the cognitive and emotional biases that are affecting their clients and then communicate effectively with their clients to overcome the sometimes-irrational decisions caused by these biases.

Emotional Biases

A number of emotional biases can combine to negatively affect the decision-making of holders of concentrated positions, including the following:

- Overconfidence and familiarity (illusion of knowledge)
- Status quo bias (preference for no change)
- Naïve extrapolation of past returns (extrapolation or recency bias)
- Endowment effect (a tendency to ask for much more money to sell something than one would be willing to pay to buy it)
- Loyalty effects

When biases are emotional, simply drawing them to the attention of the investor is unlikely to lead to a positive outcome. The investor may become defensive rather than receptive to considering alternatives.

To overcome emotional biases, it can be helpful to ask how the client would invest an equivalent sum if they received it in cash today. Often, their answer is to invest in a portfolio very different from the concentrated position. If the asset was inherited, it may help to explore the deceased donor's intent in owning the concentrated position and bequeathing it. Was the primary intent to leave the specific concentrated position because it was perceived as a suitable investment based on fundamental analysis, or

was it to leave financial resources to benefit the heirs? Heirs who affirm the latter conclusion are more responsive to considering strategies to reduce the concentration risk. It may also prove useful to review the historical performance and risk of the concentrated position.

Cognitive Biases

Cognitive biases can combine to negatively affect the decision-making of holders of concentrated positions, including the following:

- Conservatism (in the sense of reluctance to update beliefs)
- Confirmation (looking for what confirms one's beliefs)
- Illusion of control (the tendency to overestimate one's control over events)
- Anchoring and adjustment (the tendency to reach a decision by making adjustments from an initial position, or "anchor")
- Availability heuristic (the probability of events is influenced by the ease with which examples of the event can be recalled)

If cognitive errors are brought to the attention of the investor, he or she is likely to be more receptive to correcting the errors.

CONSTRAINTS AND THE CONCENTRATED POSITION DECISION-MAKING PROCESS

Zachary Sloan, CFA, serves as the wealth manager for the Bailer family. Pierce Bailer was formerly the CEO of Casper Concrete Corp. (CCC), a large public company, for over 20 years. During his tenure as CEO, Bailer accumulated a significant position of 3 million shares of CCC stock. Bailer retired as CEO effective 1 January 20X0 and continued to serve as a member of the board of directors until his term expired 31 December 20X1. Bailer is currently 55 years old and healthy and has a life expectancy of 87 years. He is married to Brooke, who is also 55 and healthy.

Bailer currently owns a 3 million shares position in CCC. At the current market price, the Bailer's share position is worth USD60 million and represents 80% of the Bailer family's total investment portfolio, which is worth USD75 million. The other 20% of their portfolio is invested evenly in high-quality fixed-income securities and a diversified portfolio of equities. Bailer has owned the CCC shares for many years, and the shares have increased significantly in value over that time. In addition, the stock has always paid, and continues to pay, a fairly attractive dividend, currently yielding approximately 2%. The dividend satisfies most of the Bailer family's day-to-day living expenses. The tax cost basis of the CCC shares is close to zero, and the sale of the entire position would trigger a tax liability of approximately USD9 million at a capital gains tax rate of 15%.

While Bailer was CEO, he was required by his employment contract and company policy to maintain a large position in CCC shares, and although occasional sales were permitted, sales and hedging transactions by executives and other employees were frowned upon and discouraged by the board of directors. In fact, it was company policy to encourage retirees to not sell their shares to protect the company against a hostile takeover because, collectively, the shareholder votes of the former employees might help stave off a takeover. In addition, until Bailer left the board of directors, he was deemed an "insider," and the securities laws and regulations limited the timing and amount of any sales or hedging activity. His remaining equity stake is insufficient to qualify him as an "insider" without his board position.

The country in which the Bailer family resides currently has a long-term capital gains tax rate of 15%. However, because of the political situation in that jurisdiction and pending legislation, the capital gains tax rate is generally expected to increase significantly, very likely to 23%, effective 1 January of the next year. Also, in this jurisdiction, the shares would qualify for a "step-up" in tax cost basis upon the death of the owner. That is, upon inheritance of the shares, the recipient/beneficiary would receive a new tax cost basis equal to the value of the investment asset on the date of death. This new tax cost basis would then be used to compute any future gain or loss on the sale of the investment asset by the recipient/beneficiary.

Even though he no longer has any formal affiliation with CCC, Bailer remains extremely loyal to CCC, is a big fan of CCC stock, and follows the stock regularly. Although he has no better access to information about the company than any other investor, Bailer feels that he knows the company much better than other investors. Mrs. Bailer remembers that she and Pierce started their married life with a negative net worth, and the family's net worth grew over time as Pierce's CCC position skyrocketed in value. Mrs. Bailer also realizes that, for many years, the dividends paid on their CCC stock paid for a good portion of their living expenses.

Immediately following the expiration of Bailer's term as a member of the board of directors, Sloan suggested a meeting to discuss an alternative asset allocation framework.

1. Recommend primary investment objectives for the Bailer family's concentrated single-asset position.

   Solution:

   The family owns a concentrated position in CCC shares that constitutes 80% of their investment portfolio. The first objective should be to significantly reduce the concentration risk. The second objective should be to monetize to satisfying spending needs. The third objective should be to achieve the first two objectives in the most tax-efficient manner.

2. Identify primary constraints that might impede the Bailer family's ability to achieve their primary objectives.

   Solution:

   The capital gains tax consequences of an outright sale are a primary constraint to fulfilling the primary investment need. If the entire position were sold this year, a capital gains tax of approximately USD9 million would be incurred. However, if the position is sold on or after 1 January of the next year, a capital gains tax of approximately USD13,800,000 would likely be incurred because of the anticipated increase in the capital gains tax rate—an increase of USD4,800,000. Because the capital gains tax rate will likely be considerably higher soon, Bailer may wish to sell the CCC position this year and lock in the current capital gains tax before it increases. The step-up in tax cost basis the shares would receive if Bailer held them until his death should also be considered. However, Bailer's fairly long life expectancy of approximately 32 more years implies that the present value of the step-up is fairly low and should be greatly outweighed by the benefits of diversification over that long-term period.

3. On the basis of the information given, discuss what emotional and cognitive biases may affect the decision-making of Mr. and Mrs. Bailer.

   Solution:

   The facts indicate that loyalty effects, overconfidence/familiarity (illusion of knowledge), and confirmation bias could be affecting Mr. Bailer, while status quo bias, naïve extrapolation of past returns, and anchoring and adjustment bias could be affecting Mrs. Bailer. For many years and until recently, Mr. Bailer was deemed an "insider" for securities law purposes, and the timing and amount of any sales and hedging activity was restricted by applicable securities laws and regulations. Additionally, for many years, he was bound by his employment contract and company policies to limit the sale and hedging of his CCC shares. However, these restrictions were eliminated when his term as a member of the board of directors ended, so liquidity is no longer an issue.

Family Governance

Modern wealthy families are often very large and may include numerous siblings, children with their families, grandchildren, etc. Families may face behavioral and emotional challenges, such as generational conflict, disability, sibling rivalry, the inability of children to take over the business, or other tensions, which may adversely impact decision-making regarding the family business and transfer of wealth.

When many stakeholders are involved, families may establish a system of family governance to ensure the effective generation, transition, preservation, and growth of wealth through time. According to Stalk and Foley (2012), the family-owned enterprise tends to decline by the third generation. The founder *creates wealth*, the second generation *maintains wealth*, and the third generation *depletes wealth*. This is such a common phenomenon that many countries have a saying to capture the reality:

- The English say, "Shirtsleeves-to-shirtsleeves in three generations."
- The Japanese say, "Rice paddies to rice paddies in three generations."
- The Scottish say, "The father buys, the son builds, the grandchild sells, and his son begs."
- The Chinese say, "Wealth never survives three generations."
- The Italians say, "From stables to stars to stables."

While 70% of family businesses fail or are sold before the second generation can take over their management, and only 10% of those businesses ever reach a third generation, the decline in wealth across generations can generally be attributed to:

- the dilution of wealth among a larger number of descendants,
- a lack of interest in the family business by younger generations,
- a lack of education and planning by family members, and/or
- a different set of values, work ethic, and perspectives of subsequent generations.

A strong family governance framework can mitigate some of these issues and behavioral biases that impede effective decision-making. If established at an early stage and with all family members recognizing the importance of regular communication and collective decision-making, it can be an effective value-added tool.

Having a family business as the core of the family's wealth adds an additional layer of complexity. At some point, the founder must face the question of business succession planning: Will the management and ownership of the business be transitioned to a new generation within the family, or will the business be sold?

Founders may allocate shares in the business to the new generation during their lifetime or after the founder's death. The shares may be transferred directly or via trust. Control is an important issue for founders to address. Who will control the business after transition? A founder may choose to keep voting shares to retain power and operating control—transferring only non-voting shares to children in trust by gift or other methods. Alternatively, a founder may decide to pass voting shares to family members who are actively involved in the business and non-voting shares to family members who are not actively involved in the business.

Family businesses frequently have an emotional value to the founder(s) and family. Thus, when selling the business, the founder(s) may exhibit an *endowment bias*, overestimating the value of the business and refusing to accept the fact that it has weaknesses. This is likely to complicate sale negotiations. Private wealth advisers must manage the expectations of the founder to ensure smooth execution of the business sale.

Exiting a family business involves far more than determining a fair value of the business. Other business, personal, family, and charitable goals are likely impacted by this significant transition. Capital gains and income taxes will be due upon sale. Cash flow needs post-sale may be affected, as will estate and charitable gifting strategies.

The timing of the sale is also a consideration. Many business owners will transfer actual ownership of the business to a trust or other vehicle well in advance of a potential business sale to remove any future appreciation from the estate of the business owner. A discount may be applied to the transfer value due to lack of control or lack of marketability, which may reduce the gift and estate tax liability.

The sale of the family business creates liquidity that can be used to establish a new business or a philanthropic entity. However, without advance planning, it may also result in the assets being dispersed among numerous family members, causing the business activity that brought family members together to disappear. With suitable structures put in place in advance (such as a family foundation or similar structure), the family may be united following the business exit by pursuing philanthropic goals. In this way, the family can increase its social capital, train the younger generations, and promote the family's values. Founders who prefer to maintain control over distribution of the funds may specify the charitable causes that should be funded by the foundation or even provide a list of specific charities and funding amounts.

CASE STUDY

Selling the Family Business

Blaine Cameron founded a specialty middle-market tool and dye company in the 1990s that today bears the family name and has gained significant market share. Over the years, he and his wife, Sonia, have raised their son and daughter, Drake and Sophia, respectively. Sophia grew up doing odd jobs around the plant and working on the line during the summer between university semesters. Sophia is now on Blaine's executive team as chief operating officer and has been groomed for leadership. Drake, on the other hand, has little involvement in the family business, although he and the rest of the family identify closely with it. Both Sophia and Drake are married and raising children of their own.

Blaine, now 70 years old, aims to monetize some of the value in the business, step away from some of the more intense day-to-day responsibilities, and spend more time with his grandchildren. He still believes Sophia has the talent and

ambition to build the business well beyond its current level of profitability and has asked Wendel Petro, CFA, Blaine's wealth adviser, to provide some monetization alternatives that would allow Sophia to manage the company.

1. Is an IPO or sale to a financial buyer an appropriate exit strategy for Cameron?

   Solution:

   Both an IPO and a sale to a financial buyer would necessitate the Cameron family relinquishing a substantial degree of control over the company. This presents a notable drawback for both exit strategies since the family's identity is closely intertwined with the company, and Cameron's daughter plays an active and proficient managerial role within it. Furthermore, as a middle-market company operating in a non-growth industry, pursuing an IPO is likely premature. Therefore, Petro should explore alternative exit strategies.

2. What are the advantages and disadvantages of some possible alternatives?

   Solution:

   An MBO represents a viable alternative. While there is limited information available regarding the capabilities and appetite of the broader executive team to exploit the remaining business potential, Cameron believes his daughter, Sophia, possesses the potential for this task. If other members of the executive team share similar skills and ambitions, an MBO could unlock the business's potential while allowing the Cameron family to retain control. It is probable that neither Sophia nor the other members of the management team possess the financial resources to finance the purchase. Consequently, Cameron may need to provide debt financing himself, resulting in limited initial cash but a steady cash flow through debt repayments.

   Alternatively, a leveraged recapitalization offers greater initial monetization possibilities and could be structured to enable Sophia to acquire an equity stake that incentivizes her ongoing efforts to grow the business. While an ESOP can provide initial liquidity, it is unlikely to offer the control features that Cameron desires.

   Another, albeit less ideal, option is for Cameron to borrow against his shares, using them as collateral. The lender may require the loan to be structured as puttable debt to safeguard against declines in equity value. However, this approach would not provide monetization if the equity subsequently decreases in value. Alternatively, the loan could be structured as a non-recourse loan, in which Cameron would tender his shares if their value falls below the amount owed. While this provision offers price protection, it would also necessitate Cameron ceding control of the firm in that scenario.

3. What post-sale issues should Petro raise to Blaine to prepare for potential monetization of his tool and dye business?

   Solution:

   Family conflicts can emerge when wealth is allocated among family members. Additional tensions may arise because Sophia is actively involved in the business, whereas Drake is not. Implementing a family governance system, such as a family constitution, can assist in managing expectations and providing some predictability regarding succession matters.

   Petro should also offer guidance on the appropriate allocation of funds resulting from a potential sale. Possible uses include establishing a diversified investment portfolio to achieve some level of diversification, creating a trust

or similar structure to align with family legacy goals outlined in the family constitution, or forming a family foundation or donor-advised fund to support charitable endeavors. Trust structures should consider the increasing number of descendants, their potential lack of interest or knowledge in business participation, and the possible complacency that extreme wealth can bring about. Petro must also plan for potential capital gains tax liability and ensure the availability of adequate liquidity to meet these obligations.

QUESTION SET

1. How is selling a family business to a set of heirs/relatives often similar to an MBO?

   Solution:

   In both selling a family business to heirs or relatives and executing an MBO, buyers often face financial constraints that inhibit their ability to meet the agreed purchase price or secure external financing. As a result, the existing owner usually provides financial assistance to facilitate the transaction. However, when selling to family members, additional factors like estate planning and gifting may also come into play.

2. Which of the following is a unique concern with concentrated portfolios?

   A. Non-systematic risk impacting the financial assets

   B. Systematic risk impacting the financial assets

   C. Total risk to all wealth

   Solution:

   A is the correct response. Systematic risks are part of any equity-based investment strategy, but non-systemic risk—that is to say, risks associated with a specific company—are of much higher magnitude in a non-diversified portfolio. Total risk to all wealth is a concern of concentrated portfolios but is not unique to them. It is a concern with all investments.

3. Discuss some of the reasons why family enterprises often decline within a few generations.

   Solution:

   Family enterprises frequently decline by the third generation, with only 10% making it that far. Key factors contributing to this decline include asset dilution among heirs, diminishing interest in the business, insufficient education, and divergent values and life goals. Implementing a robust family governance framework can mitigate some of these challenges.

MANAGING CONCENTRATED POSITION FOR PROFESSIONALS, EXECUTIVES, AND OTHERS

5

☐ discuss and recommend appropriate private wealth management approaches that maximize the human capital, financial capital, and economic net worth of professionals, executives, and others

Wealth and income sources for public company executives can differ significantly compared to traditional wage earners and even owners of private companies, including the following.

- Salary: Public company executives receive a base salary as part of their compensation package, which is typically higher than the salaries of most traditional wage earners. As a result, the magnitude of human capital for a public company executive is usually much larger than that for traditional wage earners. Although the magnitude of wealth for public company executives and private company executives can be comparable, salary tends to be a larger component of human capital for public company executives than private company owners who derive a greater proportion of their wealth through their equity stakes.
- Bonus: Executives often receive annual performance-based bonuses tied to the company's financial results or individual performance metrics. These bonuses can be substantial and vary substantially from year to year and typically represent a larger proportion of the source of wealth for public company executives than owners of private companies who again tend to derive their wealth from their equity stake. The wealth manager should take into account the variability of this uncertain income in cash flow planning.
- Stock options and equity awards: A significant portion of executive compensation may come in the form of stock options and equity awards, which are designed to align their interests with shareholders. These can become valuable if the company's stock price rises and adds an additional layer of risk exposure to their concentrated position.
- Deferred compensation: Executives may have access to deferred compensation plans, allowing them to defer a portion of their income for tax planning purposes or to receive it in later years, often at a favorable tax rate. If the form of this compensation is equity, it again adds an additional layer of risk.
- Retirement plans: Public company executives typically have access to generous retirement plans, pension plans, and other executive retirement benefits.
- Perquisites (perks): Executives may receive various perks, such as company cars, club memberships, travel allowances, and other non-monetary benefits.

The nature of their source of wealth has implications for spending patterns of executives of publicly traded companies.

- Variable income: Executives may experience significant variations in their income due to the reliance on bonuses and stock options. This can lead to more cautious spending in years when bonuses are lower.

- Wealth accumulation: Executives may prioritize wealth accumulation through stock options and equity awards, with a focus on long-term financial goals and retirement planning.
- High fixed costs: Executives may have high fixed costs associated with maintaining a certain lifestyle, including housing, education, and other expenses, which can make them more susceptible to economic downturns.

Managing Concentrated Positions for Professionals and Executives

Many of the sales strategies, psychological considerations, and post-sale considerations for owners of a private business are available to executives and professionals holding concentrated positions in publicly traded equity. The set of options expands for public company executives, however, because the underlying equity has liquidity unavailable to owners of private companies. The liquidity provision of a public market may increase a potential sale price and avoid the need to find a potential buyer but may also eliminate discounts associated with lack of marketability.

Moreover, the equity of public companies may have liquid derivative contracts that use the public equity as an underlying instrument. This provides additional pricing transparency for the hedging strategies and avoids the additional costs typically associated with executing economically similar transactions OTC through a dealer. Even if an executive chooses to use an OTC hedging instrument over a hedge constructed with publicly traded options, for instance, the availability of similar publicly traded derivatives allows dealers to hedge their positions much more easily, improves transparency, and generally improves pricing as a result.

Public Market Considerations

Owners of publicly traded concentrated assets, however, may be subject to additional constraints that owners of private companies are not. They may, for example, be restricted from selling stock due to a deferred compensation contract or regulatory provision. Alternatively, they may be required to disclose their intended trades publicly before or after the sale.

The institutional and capital market environments act as constraints on the choice of methods that may be effective in dealing with concentrated positions. Execution of any strategy is dependent on the governing law. The legal relationship that exists among the owners of a business depends on the type of entity that is being used (e.g., sole trader, partnership, limited partnership, or limited company, among other forms, in the United Kingdom), the laws governing that type of entity, and any documentation or agreements those laws require.

Company insiders and executives must often comply with myriads of rules and regulations promulgated by governmental authorities. In most countries, such individuals, like any investor, cannot trade on material, non-public information. However, they typically must also comply with certain notice and disclosure/reporting requirements, and there may be specific limitations with respect to the timing and volume of sales or hedging transactions.

Beyond restrictions imposed by securities laws and regulations, contractual restrictions, such as initial public offering requiring "lockups," and employer mandates and policies, such as a prohibition of trading during certain "blackout periods" (i.e., periods when insiders cannot sell their shares), can greatly restrict the flexibility of insiders and employees to either sell or hedge their shares. Private companies may require the equity holder to provide a right of first refusal to either the entity or to other equity investors (i.e., the right to buy the interest at the same price and under the same conditions that the third party is offering).

Certain characteristics of the underlying stock ultimately determine the feasibility of hedging different concentrated positions and in what degree they can be hedged. The ability to borrow shares is critical because the dealer needs to manage the risk inherent in being a counterparty to the investor's hedge. Managing this risk is achieved by first locating and borrowing the shares and then selling those shares in the marketplace. Although the investor executing the hedging transaction with the dealer could make its long shares available for the dealer to borrow if the shares were not restricted in any manner, the tax authorities could potentially view the transaction effectively as a sale, resulting in a tax liability.

Additionally, the *liquidity* of the stock is vital because the dealer will periodically adjust its hedge, either borrowing and shorting additional shares or buying back shares and covering some of its outstanding short position. The dealer will assess liquidity and observe whether the shares have had a propensity to "spike" either up or down. Most dealers will therefore not execute collars or use other hedging techniques on recent IPOs until an established trading history is verified.

The Role of OTC Derivatives

With respect to an OTC derivative, the investor incurs the credit risk of the single counterparty that he or she contracts with. Because a clearinghouse (that is typically owned and jointly and severally backed by all its members) is the counterparty on exchange-traded instruments and guarantees the instrument, the investor incurs significantly less counterparty credit risk than OTC derivatives.

The investor can close out exchange-traded instruments prior to their stated maturity by acquiring exactly offsetting positions with any market participant. With respect to OTC derivatives, the investor can attempt to negotiate an early termination of a particular contract, but the counterparty can and usually does extract an often-meaningful concession in return for early termination. This cost can be counterbalanced by the cost of establishing an offsetting position with a third party, effectively creating an economically neutral position.

By their very nature, exchange-traded instruments should provide robust price discovery. In contrast, an OTC derivative is priced through negotiation with a single dealer. Fiduciaries and advisers should solicit, receive, and evaluate competing bids from at least several dealers to ensure that reasonable price discovery has occurred. Standard derivative pricing models can independently provide a reasonableness benchmark for transaction prices, but liquid market pricing is always a valuable benchmark for transparency.

Fees and expenses are more transparent in exchange-traded transactions. All commissions and fees must be identified on trade tickets, trade confirmations, and monthly statements. It is much easier for dealers to build their fees into OTC derivative transactions, especially in such instruments as prepaid variable forwards, where the collar and loan are combined into a single instrument.

A **prepaid variable forward** offers the asset owner an immediate cash payment without immediate tax consequences from a sale. It provides the owner with liquidity and a hedge against price fluctuations. For investors aiming to cash in on a significant equity holding without immediate tax implications, this approach is beneficial. The contract outlines varied future delivery options, granting flexibility in deciding the number or value of shares to be delivered later.

OTC derivatives give the investor maximum flexibility with respect to negotiating the custom terms and conditions of any transaction. Exchange-traded instruments are standardized contracts that do not give investors the same degree of flexibility.

Exchange-traded instruments typically have a smaller minimum size than OTC derivatives. OTC derivatives have a minimum size that is typically around USD3 million.

CASE STUDY

Hedging a Concentrated Position in a Public Company

Rachel LeMesurier recently retired from Denton Corp., where she experienced a long and successful tenure as a senior executive. During her 30-year career with Denton Corp., LeMesurier received a considerable portion of her compensation in the form of Denton Corp. shares. She currently owns 100,000 shares of Denton Corp. stock, which are currently trading for USD40 per share.

LeMesurier has decided that she would like to hedge the risk of her USD4 million position (100,000 shares × USD40) in Denton stock. LeMesurier has been exploring various hedging alternatives with her wealth manager and feels that a zero-cost collar will give her the downside protection that she needs while still allowing her to participate to a certain extent should the price of Denton Corp. shares increase.

LeMesurier likes the transparency and lower counterparty risk of exchange-traded options given the fact that her counterparty will be a clearinghouse that is owned and guaranteed by all the exchange members as opposed to a single dealer.

Currently, Denton Corp. exchange-traded puts with one year to expiration and a strike price of USD36 are trading at a premium of USD3 per share, and Denton Corp. exchange-traded calls with one year to expiration and a strike price of USD48 are trading at a premium of USD3 per share. Through her wealth manager, LeMesurier submits a spread order to simultaneously sell the calls and buy the puts, covering her entire USD4 million Denton Corp. stock position, with the USD300,000 premium received for selling the calls fully financing the USD300,000 premium required to purchase the puts.

The price of Denton Corp. shares traded in a range during most of the one-year period the collar was in place. One year later, Denton Corp. shares closed closes at USD42, and both the puts and calls expired worthless on that date.

The tax code where LeMesurier is domiciled treats the call premium received on short calls as a current short-term capital gain, whereas the premium paid to acquire puts increases the tax cost basis of the shares that were hedged.

In the jurisdiction where LeMesurier is domiciled, a forward contract or a swap could be used to achieve the same collar-like economics. The embedded call and put premiums are netted, and the economics of a long put/short call structure are built into a single contract.

OTC options could also be used to implement a collar. Because the terms of such a collar are negotiated with a single dealer, the transaction could be structured and documented as a single contract, with the premiums effectively netted out. Most option exchanges do not yet allow collars to be structured as a single contract.

1. Can this treatment result in a less-than-optimal tax result?

   Solution:

   Yes. Because LeMesurier used exchange-traded options, she faces an immediate taxable gain on the expired calls. More specifically, the USD300,000 premium LeMesurier received on the sale of the calls will be taxable in the year the options expired as a short-term capital gain.

   However, the tax code does *not* permit LeMesurier to deduct the USD300,000 premium paid to acquire the puts in the year the options expired. The put premium increases her tax cost basis in her Denton Corp.

shares, which reduces the capital gain tax liability only when the shares are ultimately sold.

2. Could OTC derivatives deliver a potentially more tax-efficient result than using exchange-traded options?

   Solution:

   Yes. If LeMesurier had used a collar based on OTC derivatives documented as a single instrument in lieu of exchange-traded options, she could have achieved a more tax-efficient result. Instead of being currently taxed on USD300,000 of short-term capital gains and having deferred long-term capital losses of USD300,000, which was added to her tax cost basis, LeMesurier could have had no taxable event had she used an OTC derivative and documented the collar properly.

3. Would there have been a cost to LeMesurier if she decided to implement her collar with OTC derivatives in lieu of exchange-traded options?

   Solution:

   The cost to LeMesurier of using an OTC-derivatives–based collar in lieu of exchange-traded options is that the non-tax advantages (e.g., lower counterparty risk, transparency in pricing) of exchange-traded options are forfeited. However, many investors in LeMesurier's situation are likely to feel this is a fair price to pay for the enhanced tax efficiency that an OTC derivative–based collar documented as a single instrument can deliver in certain jurisdictions.

Hedging Concentrated Exposures in Publicly Traded Companies

The stocks of public companies may have liquid derivative contracts that use the public equity as an underlying instrument, which provides more liquid hedging strategies and additional pricing transparency for the hedging strategies and avoids the additional costs typically associated with executing economically similar transactions OTC through a dealer. The set of hedging and monetization options include:

- short against the box,
- protective put,
- zero-cost collar, and
- covered call.

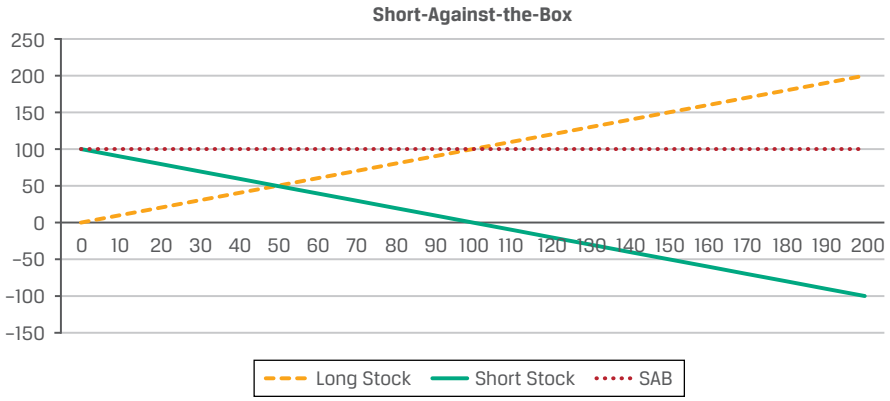
Short Against the Box

A **short sale against the box position**is a hedging strategy that shorts a security that is held long. For example, owning one million shares of ABC Corp. at USD100 per share establishes a USD100 million long position. By borrowing and selling an equal number of ABC Corp. shares, the investor creates a corresponding USD100 million short position.

Because the investor is simultaneously long and short the same number of shares of the same stock, any future stock price change has no effect on the investor's economic position (except for transaction costs). Likewise, any dividends or other distributions that are received on the long shares are passed through to the lender of the shares that were sold to open the short position. Because the long and short positions together

constitute a riskless position, the investor will earn a money market rate of return on the USD100 million position, effectively transformed the risky stock position into a riskless asset, as shown in Exhibit 12.

Exhibit 12: Short Against The Box



By itself, a short against the box is a risk-avoidance or risk-mitigation strategy. However, because the short sale against the box creates a riskless (i.e., devoid of price risk) position, margin rules typically allow the investor to borrow with a high LTV ratio, commonly up to 99% of the stock's value. The proceeds from the transaction often go into a diversified portfolio. The strategy's net borrowing cost can remain low as long as there is an interest income offsetting the margin loan interest expenses.

However, executing a short against the box typically triggers a taxable event, realizing any unrealized capital gains. This strategy is generally used when the cost basis is high and selling the position would lead to significant tax exposure that needs to be managed. Similarly, this transaction can be used when there is an unrealized loss in the concentrated position and it cannot serve any tax management objectives, such as selling the position to offset gains or other types of income that for tax reasons can be offset by a taxable loss.

Protective Put

A protective put strategy involves buying a put option while holding the underlying stock. This approach is more straightforward if the stock and its associated options are publicly traded. It is possible, however, to negotiate similar put options privately in the OTC market.

The protective put establishes a minimum selling price for the stock (over the term of the option), allows unlimited profit potential if the stock rises, and defers capital gains tax. Investors still retain dividend benefits and voting rights. Investors typically select put options with strike prices at or just below the stock's current market price, similar to how insurance premiums work. Note that there may be tax implications here, and profits on the long put options are often taxed as capital gains. The strategy effectively transfers risk, as opposed to mitigating it, by guarding against losses from stock price declines below the put's strike price, although counterparty credit risk remains when such transactions are off-market or OTC.

The cost of the put option depends on factors, such as stock volatility, strike price, the risk-free rate, and the option's time to maturity.

Practically, however, one may need to consider whether the market may negatively view such a put strategy by the principal owner on his/her own stock in any jurisdiction where such a strategy will require legal disclosure of the owner. If the strategy is not carefully executed, it could backfire and be seen as if the owner is not optimistic on the stock's prospects, and this could damage the stock performance or reputation. For instance, if a CEO protects a large stock investment in their company, people might think the CEO is not optimistic about the company's future. However, the real reason for this move could be to safely pass on wealth to the next generation.

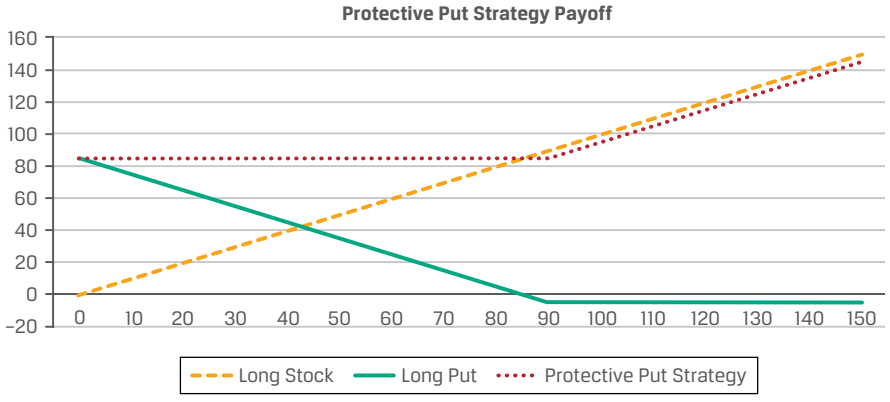
CASE STUDY

Protective Put

Bill owns shares of ABC Corp. that are currently trading at USD100. European put options on ABC shares with one year to expiration and a strike price of USD90 currently trade at USD5 per share. Bill decides to buy these puts to protect his stock position.

If ABC's stock price drops below the USD90 strike price at maturity, the puts will be exercised, and Bill will deliver his long shares to the option seller for USD90. His net proceeds will be USD85, accounting for the USD5 put option premium he paid for the option. If the stock price ends up above USD90 or higher at expiration, the put option will expire worthless, and his payoff will be the ending stock price less the USD5 put option premium, as shown in Exhibit 13. Another alternative is to sell the options before expiration if the trade is for protection only and not for sale purposes.

Exhibit 13: Protective Put Strategy



Bill's total initial investment is USD105 per share: USD100 per share in stock and USD5 per share for the worth of puts. If the stock closes at or above USD90, the USD5 spent on the put acts like term insurance that expires worthless.

Put option–based strategies must be rolled over at the expiration of the previous option for as long as the investor wants to hedge his or her exposure, which creates rollover risk that exposes an investor to losses far beyond the initial protection that they purportedly buy. Investors will potentially absorb losses down to the strike prices on each option in the series they purchase (e.g., 12 options over a 12-month period).

Combining a long stock position with a long put position is intuitively appealing. The out-of-pocket expense necessary to acquire purchase puts can be significant, however. Therefore, investors may mitigate out-of-pocket expenses by various strategies:

- Lowering the strike price: Out-of-the-money puts cost less than at-the-money puts. However, this increases the investor's downside risk.
- Shortening maturity: Cheaper short-term puts come with shorter "term insurance" but need to be rolled over.
- Put spreads: Partially offset the purchase of higher-strike puts by selling lower-strike puts with the same maturity. The investor will be protected from stock price declines from the strike price of the long put down to the strike price of the short put. Below the strike price of the short put, however, the investor is fully exposed to further declines in the underlying stock price. Therefore, the strategy caps downside protection.
- Knockout options: These cheaper OTC "exotic" puts cease to offer protection if the stock price rises past a certain point.

Zero-Cost (Cashless) Collar

The most common method to achieve downside protection with minimal costs is a zero-premium collar. An example was provided earlier in the curriculum. It offers investors a hedge against a stock price decline, potential for upside, and deferment of capital gains tax without an out-of-pocket expense. Dividend income and voting rights also remain intact.

CASE STUDY

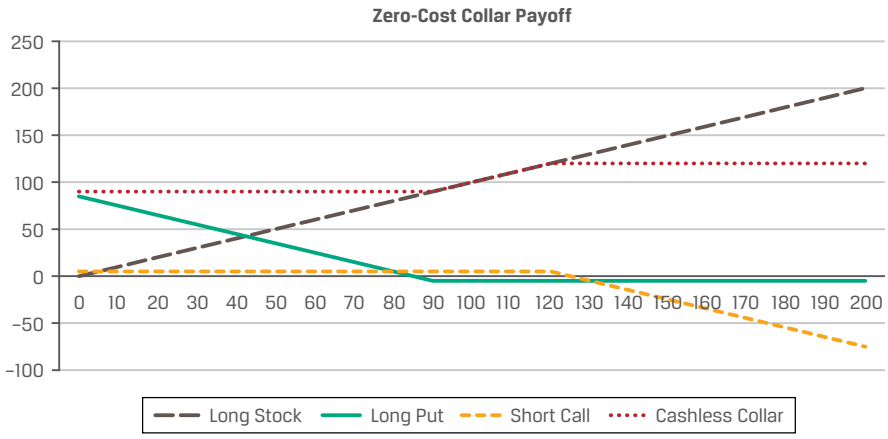
Zero-Cost Collar

Bill holds ABC Corp. shares worth USD100 per share; he:

- buys one-year puts with one year to expiration and a USD90 strike for a premium at USD5 per share, and
- sells one-year calls with one year to expiration and a USD120 strike, also for a premium priced at USD5 per share.

The sale of the call offsets the premiums paid for from the puts, requiring no out-of-pocket cost, except for transaction costs. Exhibit 14 illustrates that Bill's maximum upside is USD120 per share. If the stock price rises above USD120, the calls will be exercised against him, yielding USD120 in exchange for his shares. If ABC's stock price falls below USD90, the total proceeds would be USD90 per share because Bill would exercise the puts and receive USD90 per share, as Exhibit 14 shows.

Exhibit 14: Zero-Cost (Cashless) Collar



If the ABC's stock price closes between USD90 and USD120 at expiration, both the puts and calls expire worthless. Bill effectively breaks even on the options, having paid a USD5 per share put premium and having received a USD5 per share call premium. He retains his price exposure to the stock within this range. If the stock drops below the USD90, Bill can exercise the puts, sell his shares for USD90 each, and break even on premiums, ultimately netting USD90 per share.

If the tax authorities of a country respect the legal form over economic substance, similar equity monetization strategies should not trigger an immediate taxable event. Importantly, however, tax authorities may view collars with narrow bands of retained price exposure to the investors as a *constructive sale* or *deemed disposition* that could be a taxable event (i.e., trigger a capital gains tax liability). Other tax considerations include the tax treatment of the following.

- Option premiums paid on long positions: The cash paid for long option positions will vary by jurisdiction and often depends on whether the option:
  - *Expires worthless.* The option premium may be treated as a taxable short-term or long-term capital.
  - *Is exercised.* The option premium paid often increases the cost basis (i.e., decreases the gain) ultimately realized on the underlying stock.
  - *Closed prior to expiration.* The option premium paid is often netted against the proceeds from closing the position, and the net difference is treated as taxable ordinary income or a short-term capital gain.
- Option premiums received on short positions: The cash received as an option premium short option positions will vary by jurisdiction and often depends on whether the option:
  - *Expires worthless.* Often the option premium is treated as taxable ordinary income or a short-term capital gain.
  - *Is exercised against the short party.* The option premium received often decreases the cost basis (i.e., increases the realized gain) on the underlying stock.
  - *Closed prior to expiration.* The option premium received is often netted against the cost of closing the position, and the net difference is treated as taxable ordinary income or a short-term capital gain.

- Dividend taxation: In some areas, such as the United States, in-the-money or short-term (less than 30 days) call options can affect how dividends are taxed. In such cases, dividends may be taxed at the standard income rate, rather than the more favorable qualified dividend rate.

Jurisdictional variation makes generalization of the rules impossible. However, structures are relatively more tax efficient when they:

1. recognize taxable income and capital gains at relatively low tax rates;
2. recognize tax-deductible expenses and capital losses at relatively high tax rates;
3. defer tax-associated income or capital gains, holding the timing of pretax cash flow constant; and
4. accelerate deductions or capital losses as preferred, holding the timing of pretax cash flow constant.

The tax profile of a hedging strategy can be compared to the long-term capital gain tax rate, which is lower than the tax rate on short-term gains or ordinary income in many jurisdictions. Some examples of possible scenarios that are tax inefficient are the following:

1. When premiums collected on a covered call position are taxed more heavily (e.g., ordinary income) when they expire worthless
2. When the option premium paid for a protective put increases the cost basis of the underlying stock, it reduces the taxable capital gain when the stock is ultimately sold. The tax benefit is deferred, however, to when the stock is ultimately sold and does not necessarily match with the initial payment of the premium. Sometimes the premiums received and paid on collar can be netted for tax purposes, making the transaction tax neutral.
3. When capital gains from closing positions are taxed more heavily than the long-term tax rate on the underlying stock

While zero-cost collars are generally attractive to investors and advisers, some strategies enhance the retained upside potential.

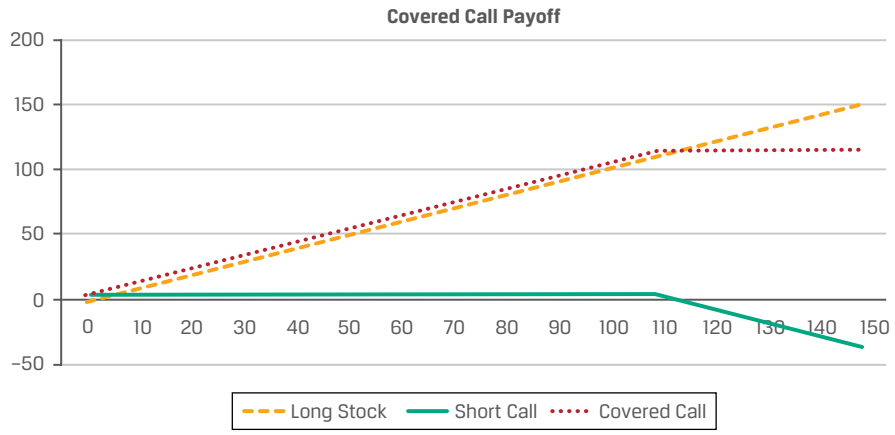
- Wider collar: Lower the put strike price to reduce its premium, enabling the sale of a higher-strike call to fund the put. This increases upside potential but also expands downside risk.
- Put spread: Replace a standard long put with a put spread, which lowers the net cost of the long put cost by selling another put. This enables the sale of a higher-strike call to offset the net cost of the put spread. While this exposes the investor to declines below the short put strike price, it also offers greater upside by allowing the investor to increase the strike price on the short call.
- Debit collar: Pay part of the put premium out of pocket to supplement a lower premium received from the sale of a higher-strike call for financing the net put cost. This strategy is known as a "debit" collar.

Covered Call

In some cases, a client may want to implement only the call selling program without any hedging or monetization. *Covered call writing* is often viewed as attractive if the owner believes the stock will trade in a range for the foreseeable future.

For instance, if ABC is trading at USD100 per share, and the client, Bill, is not willing to sell below USD110 per share, he could sell call options with a USD110 strike price. If the stock rises to this level, the call gets exercised, and Bill would have to deliver the shares at USD110 per share, as illustrated in Exhibit 15.

Exhibit 15: Covered Call



If the ABC share price doesn't reach the strike price of USD110, Bill simply profits from collecting the call premiums. While often labeled a hedging strategy, it minimally guards against downside risk, only offsetting losses by the amount of the premium collected, at the cost of capping upside potential. A more accurate description of the covered call strategy would be a "yield enhancement" strategy. Using covered call writing can also serve as an alternative to structured selling for staged diversification. A key advantage is that it can mentally prepare the owner for eventually selling the shares.

CASE STUDY

Hedging a Concentrated Equity Position

James Banner is the former CEO of Camier Company. He sold a large portion of his shares to a private equity firm in a leveraged recapitalization, but still holds 300,000 shares, which is currently trading at EUR76 per share. James is unwilling to sell any portion of his position at less than EUR80 per share but also wants to protect his shares from sharp share price declines over the next year should the stock price crash. Capital gains on stock held for more than a year are taxed at 25%. With the help of his adviser, James looks at three strategies to protect his entire position: a protective put, a zero-cost collar, and a covered call.

- Protective put: Buy a one-year put option with one year to expiration and a strike price of EUR70 for a EUR5 per share premium.
- Zero-cost collar: Buy the same one-year put option with a EUR70 strike price using proceeds from the sale of a call with one year to expiration and a strike price of EUR80.
- Covered call: Sell one-year call options with one year to expiration and a strike price of EUR80 for a EUR5 per share premium.

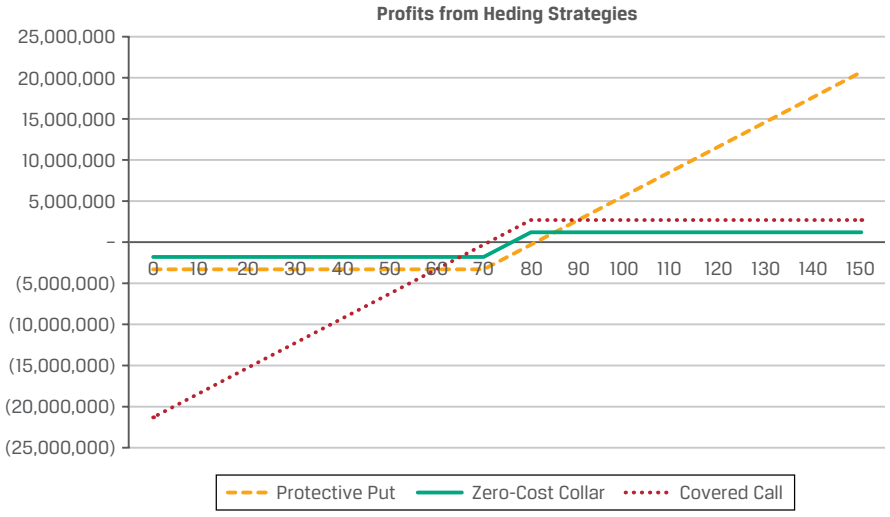
The tax code where Banner is domiciled taxes the premium received on calls that expire worthless at 50%. Premiums paid on long puts that expire worthless increase the tax cost basis of the shares that were hedged. Premiums received and paid on collar position can be netted against each other, however. On exercised options, premiums paid or received increase or decrease, respectively, the basis of the underlying stock. Gains on closed positions are taxed at 50%. Losses are deducted at 25%.

1. What is the maximum possible profit for the protective put strategy? How much can James's maximum possible loss be over the next year?

   Solution:

   Exhibit 16 displays the profit and loss metrics for protective put, zero-cost collar, and covered call strategies.

Exhibit 16: Payoff Diagram for a Protective Put, Zero-Cost Collar, and a Covered Call



   In a protective put, James has unlimited upside potential. His maximum loss occurs at any share price below EUR70 per share. In this case, James would exercise the put and sell his 300,000 shares at the strike of EUR70 per share, yielding EUR21,000,000 for his shares that are currently worth EUR22,800,000 (i.e., 300,000 × EUR76). James paid a premium of EUR5 per share for the put, or EUR1,500,000 (i.e., EUR5 × 300,000 shares). So, James's maximum possible loss at a share price of EUR70 or lower equals the EUR1,500,000 loss on the shares plus the cost of the put, or USD3,300,000 (i.e., EUR21,000,000 – EUR22,800,000 + EUR1,500,000).

2. What is the maximum profit for the zero-cost collar strategy? How much can James lose over the next year?

   Solution:

   For James, the maximum profit from a zero-cost collar is capped at EUR1,200,000, while maximum loss is EUR1,800,000. If the stock price rises to EUR80 or higher at expiration, James would be obligated to sell at EUR80, realizing a profit of only EUR4 per share for a total of EUR1,200,000 (i.e., EUR80 – current share price of EUR76) × 300,000).

   Conversely, James is protected from any decline in share price from the current share price of EUR70 with the purchase of the put. Specifically, at any share price below EUR70, James would simply exercise the put and sell shares at the strike price of EUR70 for a loss of EUR6 per share, or a total loss of EUR1,200,000.

3. What is the maximum profit for the covered call strategy? What is James's maximum possible loss over the next year?

   Solution:

   The covered call strategy yields a maximum possible profit of EUR2,700,000 for James. At share prices of EUR80 or higher, he would be obligated to sell at the call strike price of EUR80, realizing a EUR1,200,000 profit on his shares (i.e., (EUR80 – EUR76) × 300,000 shares). Adding the call premium collected of EUR5 per share adds an additional EUR1,500,000 to James's gain from the call premium, for a total of EUR2,700,000. However, he faces a substantial downside risk, with a maximum loss potential of EUR21,300,000. Specifically, if the share price falls to zero, James's loss on the shares is EUR76 per share, but the loss is minimally offset by the EUR5 per share premium collected from the sale of the call, which would expire worthless. So, the maximum possible loss is (EUR76 – EUR5) × 300,000 shares = EUR21,300,000.

4. What are the pros and cons of a the zero-cost collar versus a covered call?

   Solution:

   Both the zero-cost collar and the covered call strategies forfeit profits above EUR80. The collar protects against downside risk and allows for monetization of the position through borrowing. The covered call has a maximum profit of EUR2,700,000, whereas the maximum profit on the collar is only EUR1,200,000. The collar offers downside protection below EUR70. If James sells only a covered call, however, he would continue to be exposed to significant downside risk.

5. What are the tax consequences of opening the option positions?

   Solution:

   The protective put strategy offers moderate tax efficiency, as the put premium is not immediately tax deductible. It will increase the basis of the underlying stock and decrease the taxable gain at the same 25% tax rate already applied to the underlying stock. It creates a timing mismatch, however, between the payment of the premium and the eventual tax benefit. The premiums received and paid on the zero-cost collar can be netted against each other for tax purposes, creating a tax-neutral impact. However, hedging that eliminates investment risk can trigger a taxable event unless there's still some risk of loss. Short call premiums received from selling calls are heavily taxed at 50%, which is inefficient compared to the 25% long-term tax rate on outright stock sales.

6. What are the tax consequences at expiration of the three strategies, assuming one of the options is exercised?

   Solution:

   The major tax consideration is capital gains from the sale of Camier stock, including shares called away. Such capital gains would qualify for James's 25% long-term capital gain rate if the shares were held for over a year. Moreover, if Banner exercises the size of the taxable gain, the put premium paid will decrease the size of his taxable gain. If the short call is exercised against Banner, the premium he originally received will increase the size of his taxable gain.

Equity Monetization Strategies without a Sale

Equity monetization provides investors cash from their stock holdings without a direct sale, circumventing capital gains tax. This can be especially appealing for investors with substantial capital gains who face selling restrictions, who want to retain their (controlling or significant) voting rights, or who need short-term liquidity. Various monetization strategies exist, including:

- a personal line of credit secured by the underlying equity as collateral,
- total return swap,
- equity forward,
- synthetic equity forward, and
- tax-free exchange.

Personal Line of Credit

The first example of a monetization strategy is to secure a *personal line of credit* using the company shares as collateral. Instead of liquidating equity, the owner with the concentrated position can secure a personal loan using shares of their private company as collateral. Proper structuring of the loan avoids immediate tax implications for both the company and the owner and sidesteps taxable events like stock sales or dividends. For a privately held business, this approach assumes that there is a lender willing to use such equity as collateral.

The lender often has a "put" option that allows them to sell the debt back to the company, which can be supported by the company's existing credit facilities or a standby letter of credit. However, exercising this put option is likely a taxable event for the owner.

The loan can also be structured as a *non-recourse loan* (often known as a Lombard loan in private banking), where the equity itself serves as the collateral. Due to equity volatility, the collateral value usually exceeds the loan amount to ensure a safety margin. If the equity value dips below the loan amount at maturity, the owner can offer the shares instead of repaying the loan. Essentially, the owner has a put option on the equity, setting the loan value as the strike price and creating a synthetic protective put.

Although the loan must eventually be repaid, the owner retains full control of the company and gains cash liquidity without incurring tax. Moreover, the interest on the loan is generally tax deductible. If the loan proceeds are invested in a diversified equity portfolio, this strategy reduces (perhaps even eliminates) non-systematic risk and reduces total risk before considering leverage. The remaining systematic risk is leveraged, however, reintroducing risk and creating a trade-off. It is therefore best considered a monetization tactic rather than a risk-reduction strategy. Moreover, unlike hedged positions, the underlying collateral is risky, leading to lower LTVs, perhaps in the 30% to 60% range.

The monetization process for the total return swap, equity forward, and synthetic equity forward consists of two steps:

1. Investors hedge a majority of their position's risk. Hedging is straightforward for large, publicly traded companies with a robust derivatives market. It can be more challenging or costly for smaller or private companies, often requiring an OTC approach.
2. Investors secure a loan against the hedged position. For a successful loan transaction, a well-developed loan market is essential. Given the hedged position's reduced risk, lenders often offer high LTV ratios. This assumes that the concentrated equity position—be it in a publicly held business or in financial instruments that may confer ownership in such a business—serves as viable collateral. Because the position is nearly risk free, the interest rate

can be very close to the risk-free rate. If the loan proceeds are diversified into different investments, stock-specific risk is mitigated without incurring capital gains tax.

Total Return Swap

Another alternative is the *total return equity swap*, in which an investor holding the concentrated position and a counterparty, typically a bank or other financial institution, exchange cash flows based on a predetermined notional amount of a specific asset, such as USD100 million in ABC Corp. shares. Here:

1. The investor pays the counterparty for any share appreciation and receives payment for any depreciation, in addition to any dividends or distributions.
2. The counterparty pays a fixed return linked to the reference rate plus any loss in share value.

The investor's position is fully hedged because any loss on the underlying stock is offset dollar-for-dollar with a gain on the swap. The reverse is true for losses. This position bears resemblance to a short sale against the box, but with a likely slightly lower return due to the dealer's larger spread. Given the full hedge on the ABC Corp. shares, a high LTV ratio monetization is feasible.

Equity Forward Contract

In an *equity forward contract*, Bill (who holds the concentrated position in ABC Corp. in our continuing example) commits to selling the ABC shares to an institution at a predetermined forward price at some future date, such as in three years. When the contract matures, the investor receives this fixed forward price, thereby locking in a guaranteed sale price for the shares. If the market price exceeds the forward price upon contract expiration, the investor still receives only the agreed forward price and foregoes any potential gains above it.

Since the combined position of stock and the forward contract is risk free, the position yields a money market rate of return factored into the forward price. Given that the ABC Corp. stock position would be fully hedged, a high LTV ratio is achievable.

Synthetic Equity Forward

For publicly traded companies, a *synthetic equity forward* can be structured through options as an alternative to a privately negotiated OTC short forward contract. The payoff from a synthetic forward—comprising a long put and a short call on the same asset—is identical to that of a short forward.

Bill can create a synthetic forward by buying ABC Corp. puts and selling ABC Corp. calls with a strike price of USD100 and the same expiration date, covering 1 million shares. When combined with the underlying stock, the synthetic forward locks in a sale price of USD100 per share for the investor. Since the synthetic forward creates a risk-free position, it should yield a money market rate of return. Given that the position in ABC Corp. shares is fully hedged, a high LTV ratio monetization is attainable.

These four strategies achieve several objectives:

- A risk-free position is formed by initiating either a direct or synthetic short position that matches the number of shares owned long.
- A money market rate of return is earned on the entire value of the long position.
- A high LTV borrowing ratio is feasible against the hedged position, akin to borrowing against a government bond.
- The cost of borrowing is substantially mitigated by the income generated from the hedged position.

- The borrowed funds can be allocated to a diversified investment portfolio.

Tax-Free Exchange

Under certain tax systems, an *exchange fund* is a mechanism that allows for a tax-free exchange of a concentrated stock position for a diversified asset pool. An *exchange fund* offers a tax-free mechanism for diversifying a concentrated stock position. In an exchange fund, investors contribute low-cost basis stock to a partnership and acquire a proportional interest in a diversified pool of low-basis assets. This is a non-taxable event, and each partner's tax basis in the fund remains unchanged. After a minimum holding period (e.g., seven years in the United States), distributions are made in the form of shares in the diversified portfolio. Gains are not taxed until the diversified shares are sold. Distributions before the minimum holding period generally return the original shares and incur substantial fees.

However, exchange funds come with limitations. Portfolio managers hold discretion over share acceptance and the composition of the share basket for withdrawals. At least 20% of the fund must comprise "qualified assets," typically real estate investment trusts. The fund may be less diversified and could charge redemption fees for early exits.

Assuming identical returns between an exchange fund and a sell-and-diversify strategy, which is a significantly limiting assumption, Exhibit 17 shows that the final liquidation value is higher for the exchange fund due to the benefits of tax deferral. Management fees, however, will offset some of these advantages.

Exhibit 17: Exchange Fund Example

	Sell/Diversify	Exchange Fund
Market value	USD1,000,000	USD1,000,000
Tax basis	USD100,000	USD100,000
Capital gain	USD900,000	
Tax on sale (at 25% rate)	USD225,000	
Amount to invest	USD775,000	USD1,000,000
Market value in 7 years (10% return)	USD1,510,256	USD1,948,717
Tax basis	USD775,000	USD100,000
Capital gain	USD735,256	USD1,848,717
Tax on sale (at 25% rate)	USD183,814	USD462,179
Final value	**USD1,326,442**	**USD1,486,538**

Note: Assumes a 25% tax rate and a 10% annual return for the exchange fund and the reinvestment portfolio of the diversification strategy.

Choosing the Best Hedging Strategy

The tax characteristics of the shares can help determine which strategy will deliver the optimal result for the client. It is not unusual for employees to receive compensation in the form of either restricted company shares or various forms of employee options to acquire common shares of their employer in the future.

Because these types of instruments are received as compensation for services rendered, tax regimes often tax these types of instruments differently from common shares that have been held as an investment asset for a long-term period by an investor.

For instance, restricted shares and employee stock options are often taxed as salary and bonus or other forms of compensation and are often taxed at different rates than long-term capital gains.

The key point is that the tax attributes and characteristics of the shares or other instrument, such as employee options, that is being hedged can influence the decisions as to what hedging tool should be used and how the transaction should be legally structured and documented.

CASE STUDY

Hedging Strategy for Publicly Traded and Privately Held Positions

Ian Lopes is a young, single serial entrepreneur. One of his prior ventures, T-Moto, is a manufacturer of electric motor bikes and recently went public through an IPO. As part of the agreement, Lopes no longer actively manages the firm but has retained USD200 million of restricted stock with essentially no cost basis subject to a one-year lock up period. The shares nonetheless trade in a liquid market in which associated publicly listed options also trade.

Another of Lopes's ventures is MotoElétrica. It is profitable, like T-Moto, but younger and pre-IPO. He wishes to retain complete control and continue to actively manage the firm. Nonetheless, Lopes is interested in monetizing both stakes so he can either diversify his holdings or perhaps purchase another venture, Chirpia, a lifestyle app that helps users manage alarms and notifications.

1. Compare and contrast the likely tax implications associated with selling Lopes's equity interest T-Moto and MotoElétrica.

   Solution:

   The potential sale of Lopes's interests in T-Moto and MotoElétrica would likely have similar tax treatment. In both cases, they would be subject to capital gains tax, calculated as the sale price minus the cost basis, which is nearly zero. It is worth noting that if some or all of Lopes's T-Moto shares were originally granted through stock options or another form of executive compensation, the entire proceeds from the sale, not just the capital gain, might be subject to ordinary income tax. Additionally, the timing of the tax obligation would typically be triggered by events like the vesting of restricted stock, the granting of stock options, or the exercising of stock options rather than the actual sale of the shares. However, based on the provided description, this does not seem to be the case.

2. Compare and contrast the likely sale and hedging alternatives for Lopes's interest in T-Moto relative to Lopes's interest in MotoElétrica.

   Solution:

   Lopes's ability to sell his publicly traded shares in T-Moto is more straightforward compared to his private company shares in MotoElétrica, which would require him to find a financial or strategic buyer. However, he must wait for the expiration of his lock-up period before selling his T-Moto shares.

   Furthermore, Lopes has a broader range of hedging options available for his interest in T-Moto due to the fact that the equity shares are publicly traded. These options include short against the box, protective put, zero-cost collar, covered call, or synthetic equity forward. It is important to note that the ability to observe the market price of the underlying asset is crucial for ac-

curately valuing derivative contracts or hedging instruments. This makes it unlikely that OTC dealer would competitively price either of these options.

Additionally, Lopes benefits from more hedging alternatives associated with his interest in T-Moto because options on those shares also trade publicly. Even if Lopes were to create a T-Moto hedge in the OTC markets, the presence of a liquid public market for the underlying asset provides valuable pricing transparency for evaluating the prices of OTC hedging alternatives. Moreover, it offers valuable hedging opportunities for a dealer to effectively manage any assumed risk associated with an OTC hedging structure.

3. Compare and contrast the likely monetization opportunities available for T-Moto with those available for MotoElétrica.

Solution:

Lopes could potentially explore the creation of puttable or non-recourse loans using his shares in either T-Moto or MotoElétrica. However, it is worth noting that T-Moto's higher liquidity is likely to result in a higher LTV ratio for those shares.

Due to Lopes no longer actively managing T-Moto, he is unlikely to utilize options like an MBO, ESOP, or leveraged recapitalization, as they typically require more control than he currently has over the company. These options may be available for monetizing his holdings in MotoElétrica, depending on the interest of management or external financial buyers.

Additionally, since T-Moto shares are publicly traded, Lopes has the opportunity to explore tax-efficient strategies like a tax-free exchange (e.g., exchange fund) or total return swap with his T-Moto shares. Such options are not feasible with his holdings in MotoElétrica. Furthermore, given that many monetization strategies rely on the ability to hedge the underlying shares, T-Moto offers a wider array of monetization strategies based on the possible hedges discussed in the solution to Question 2.

Considerations for Athletes and Actors

Wealth management for athletes and actors presents unique challenges stemming directly from the unique human capital and financial dynamics associated with their careers. Short earning periods combined with early retirement result in an extended retirement phase compared to the typical executive, professional, or entrepreneur.

Athletes experience relatively short but highly lucrative careers, necessitating early planning for retirement and long-term financial stability. Research by Rey et al. (2022) on La Liga football players reveals that these athletes typically retire between ages 31 and 35, with an average career span of 8 to 11 years. Witnauer et al. (2007) studied Major League Baseball careers from 1902 to 1993, reporting an average player's career length of 5.6 years, with a substantial exit probability at any career stage.

In contrast, actors often spend initial years establishing their careers with low-paying and competitive roles. For women, the window to establish themselves can be as short as 5 to 7 years, and they typically find it challenging to secure roles beyond their 30s and 40s. For male actors, this window is often longer, in some cases decades, before they can establish themselves, and they are often able to continue a long-term career into their 60s and 70s. Stage performers may attain success, but the stability of long-running shows and stardom in entertainment can be fleeting.

A common challenge to both athletes and entertainers is to recognize that their high incomes are finite and that they will need to make it last throughout their retirement.

The typical recommended retirement savings rate for professionals ranges from 10% to 15% of their annual income into either pensions or other types of retirement savings alternatives. For professional athletes with short career spans, it is advisable to allocate a much more substantial proportion, 50% to 75%, of their annual earnings towards their long-term financial security. Such high savings rate serves dual purposes.

- First, it accumulates a sizeable financial cushion to address unexpected emergencies or disruptions, a common occurrence in the sports and entertainment industries. Athletes can sustain injuries that can rapidly put their career on hold and lead to loss of income. Contracts may not be renewed, which would eliminate both a source of direct income from the sports team and from potential sponsorship deals.
- Second, it establishes a strong financial footing for their retirement period that is considerably longer than that of professionals and executives.

Moreover, young and successful athletes that experience "sudden wealth" and adopt an extravagant lifestyle associated with celebrity status often find the cost of their lifestyle financially demanding, and after their incomes disappear, they swiftly deplete most if not all their earnings. Consequently, only a minority of those who fully embrace this lifestyle may find it feasible to commit a large part of their annual income to savings.

Wealth managers can use Monte Carlo simulations or actuarial retirement spending models, covered elsewhere in the curriculum, either to calculate how much an athlete or entertainer can spend during a relatively compressed career and still retain funds or to determine how much money needs to be accumulated to support a specific lifestyle over a given time. Common adjustments to the inputs include extending the actuarial time horizon over which spending must be maintained. It's also important to recognize that the distribution of inputs and outcomes for actors and athletes tends to be less continuous (i.e., more discontinuous) than wage earners whose earnings are more predictably spread out through time.

Wealth managers often encounter challenges when advising athletes and actors, who may lack financial literacy and understanding of concepts such as finance, law, and taxes or who are influenced by associates with limited financial literacy. This knowledge gap can lead to poor financial decisions, including excessive credit use, lack of budgeting, uninformed investing, and neglecting emergency funds. Athletes may also be susceptible to exploitation by friends and family seeking loans or investments, necessitating awareness, planning, and difficult conversations to protect their newfound wealth.

QUESTION SET

1. For an ultra-high-net-worth family with a substantial stake in a liquid publicly traded company, both synthetic futures and forward contracts present viable options for selling equity in one year.

   Discuss some of the advantages/disadvantages of trading a synthetic future versus entering into a forward contract with a bank.

   Solution:

   The synthetic future is exchange traded, providing enhanced liquidity and reduced liquidity risk compared to transacting with a bank. However, it necessitates margin maintenance, potentially requiring a dedicated liquidity line depending on the position size. On the other hand, the negotiated forward offers greater customization to meet specific needs and eliminates

the need for margin funding due to stock price volatility. Both strategies aim to mitigate risk and achieve liquidity within a one-year timeframe.

2. Discuss some of the reasons why family enterprises often decline within a few generations.

   Solution:

   Family enterprises frequently decline by the third generation, with only 10% making it that far. Key factors contributing to this decline include asset dilution among heirs, diminishing interest in the business, insufficient education, and divergent values and life goals. Implementing a robust family governance framework can mitigate some of these challenges.

3. Discuss some of the challenges an equity portfolio manager at a major mutual fund company might face in managing their own financial assets. The job pays a standard salary plus bonus based upon personal performance as well as the performance of the funds managed.

   Solution:

   An equity portfolio manager at a major mutual fund company faces unique challenges in managing their personal financial assets. Given that their cash compensation is closely tied to market performance, particularly the equity market, they may aim to diversify by investing in assets with low correlation to equities, such as fixed-income instruments. Moreover, they are likely subject to trading restrictions due to compliance regulations, limiting their flexibility in personal stock investments.

4. Discuss how managing a concentrated ownership stake differs when the underlying company is public versus private.

   Solution:

   Managing a concentrated ownership stake varies significantly between public and private companies. In both cases, the core objective of mitigating equity exposure remains constant. However, a public company typically offers more diversification options, especially if it is large enough to have publicly traded stock derivatives. Additionally, the stake's liquidity is generally higher in a public company, reducing the need for offering discounts to potential buyers. On the other hand, selling a significant stake in a public company may come with restrictions or conditions, particularly if the stakeholder holds a business relationship with the firm, such as being an employee or director.

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PRACTICE PROBLEMS

The following information relates to questions 1-4

Luis Gonzalez was born in the United States to Spanish parents and lived and worked in the United States his entire life. Now, as he approaches retirement, he is considering moving to Spain to enjoy a lower cost of living and reconnect with his roots. After moving there, he plans to buy a large house and obtain dual citizenship. Spain and the United States have a tax treaty under which relief is provided using the credit method. Upon changing tax residency, current assets would be treated as a deemed disposition.

Gonzalez has an investment portfolio consisting primarily of US stocks and bonds with a current value of USD3 million and a cost basis of USD1 million. He also owns a home valued at USD1.5 million with a cost basis of USD750,000.

During retirement, Gonzalez's investment returns on US assets will be taxed at 10% by the United States, and his Social Security payments will be taxed at 24%. All sources of income will be taxed by Spain, and relief from double taxation will be provided using the credit method. The relevant tax rates are presented in Exhibit 1.

Exhibit 1

	US Tax Rate	Spanish Tax Rate
Investment income (prior to relocation)	20%	N/A
Investment income (after relocation)	10%	19%
Social Security income	24%	35%

1. Gonzalez's path to Spanish citizenship is *most likely* through:

   A. birth.

   B. investment.

   C. naturalization.

2. Which of the following is *most likely* an advantage of Gonzalez's planned citizenship status?

   A. Avoidance of double taxation

   B. Reduced administrative burdens

   C. Access to superior health care options

3. Upon establishing tax residency in Spain, Gonzalez will be subject to a US exit tax *closest* to:

   A. USD225,000.

B. USD400,000.

C. USD550,000.

4. The effective tax rate on Gonzalez's Social Security income will be *closest* to:

A. 24%.

B. 35%.

C. 50%.

The following information relates to questions 5-8

Fernando and Ivette Montalban have been married for 30 years and are now getting divorced. Among their assets are two inheritances that Fernando received: an art collection inherited from his grandfather before his marriage to Ivette and a vacation property inherited from his parents during the marriage. The Montalbans live in a community property regime, and no prenuptial or postnuptial agreements govern the disposition of assets.

As part of the divorce proceedings, the Montalbans are considering gifting USD120,000 of assets to their son today rather than leaving them as a bequest upon death. In their jurisdiction, USD20,000 can be gifted tax free, and any additional amounts are subject to a 20% gift tax that would be paid by the recipient. The Montalbans have a remaining life expectancy of 30 years, and at death, their assets would be subject to a 25% estate tax. The assets are expected to return 8% per year and be subject to a 15% tax on returns regardless of owner.

The family's attorney informs them that there is a proposed law change that would result in the tax on lifetime gifts being paid by the donor rather than the recipient. He observes that this potential change could affect the relative value of the planned taxable gift.

5. It is *most likely* that Ivette is entitled to half the value of:

A. the art collection only.

B. the vacation property only.

C. both the art collection and the vacation property.

6. For the first USD20,000 of gifts to their son, the relative value of the gift compared to a bequest upon death is *closest* to:

A. 1.25.

B. 1.33.

C. 4.00.

7. For the additional USD100,000 gift, the relative value compared to a bequest is *closest* to:

A. 1.07.

B. 1.25.

C. 7.39.

8. Will the proposed change in the law affect the relative value of the taxable gift?

A. No.

B. Yes, it would reduce its value if enacted.

C. Yes, it would increase its value if enacted.

The following information relates to questions 9-11

George and Kelly Pineda are 65 years old, and both expect to live to 85. Their assets are currently valued at USD25 million. In their jurisdictions, estate taxes are 40%, with a USD10 million exclusion per individual. Spousal bequeaths are not taxed, regardless of size. Lifetime gifts are taxed at 20%, with the taxes paid by the donor. The Pinedas are consulting with a tax adviser to maximize the amount they can leave to their two children Michael and Sara.

Their adviser determines the present value of the Pineda's lifetime spending needs to be USD15 million. He suggests retaining an additional surplus of USD5 million to cover any unexpected emergencies and gifting the remainder to the children now.

The Pinedas are subject to a 20% tax on investment returns. Michael is in a lower tax bracket and would be subject only to a 10% tax on investment returns. The assets are expected to return 8% annually.

Sara lives abroad with her husband. The Pinedas want to ensure that each child receives the same after-tax present value for any gift. They also want to ensure that the gift to Sara not be available to her husband in the event of a divorce.

9. If one of the Pinedas were to die today, what would be the optimal amount for the surviving spouse to inherit?

A. USD5 million

B. USD15 million

C. USD25 million

10. Compared to a bequeath upon death, the relative value of a lifetime gift to Michael is *closest* to:

A. 1.33.

B. 1.55.

C. 1.70.

11. Describe two additional considerations regarding the gift to Sara necessary to satisfy the Pineda's concerns.

The following information relates to questions 12-15

Sam Given is 65 years old and owns a trucking company valued at USD30 million. Although he is able and willing to continue running the business, he consults with Alex Sanders on how he might be able to transition the business to his heirs or new owners. Given is married with two children. His daughter is a middle manager at his company, and his son is a recent medical school graduate with no interest in the business.

Sanders begins estimating whether the Givens' primary capital is sufficient to cover their outstanding debts and lifetime spending needs. To do so, he prepares the extended family balance sheet in Exhibit 1.

Exhibit 1

Home	USD1,500,000	Mortgage	USD500,000
Cash and short-term bonds	USD1,000,000	Lifetime spending needs	USD6,000,000
Tax-deferred investment portfolio	USD2,000,000	Philanthropic goals	USD10,000,000
Human capital	USD2,000,000	Generational goals	USD15,000,000
Trucking business	USD30,000,000	Total liabilities	USD31,500,000
Total assets	USD36,500,000	Surplus	USD5,000,000

When evaluating possible paths to monetization, Sanders observes that there are several potential strategic or financial buyers who would be willing to pay full value for the company. Given would like to keep the company independent, particularly considering his daughter's role in the firm. He would also like to reward other loyal long-term employees.

Although Given paid himself a salary, historically, much of the company's profits were reinvested in the business. As an initial step toward transitioning ownership, he has the company take out a loan to repurchase 10% of his shares. He also begins paying out 20% of earnings as dividends.

At Given's income level, capital gains are taxed at 15% unless they exceed USD1,000,000 in a single year, in which case additional gains are taxed at 20%. His cost basis for his remaining company shares is USD1,000,000. Considering all of Given's goals, Sanders suggests instituting an ESOP under which he sells USD1,000,000 of shares per year to existing employees.

12. Is the Givens' primary capital sufficient to cover their mortgage and lifetime spending needs?

A. Yes.

B. No, they require an additional USD1,500,000.

C. No, they require an additional USD2,000,000.

13. Which of the following constraints *best* supports a potential sale to a strategic or financial buyer?

A. Control

B. Liquidity

C. Time horizon

14. Given's initial step toward transitioning ownership is *best* described as a:

A. sale to insiders.

B. recapitalization.

C. sale to a financial buyer.

15. Compared to an immediate sale, the tax savings offered by the ESOP are *closest* to:

A. USD1.25 million.

B. USD1.30 million.

C. USD1.35 million.

The following information relates to questions 16-19

Hernan Restrepo is a 55-year-old executive at a technology company that recently had an IPO. He began working at the company prior to its IPO, and over his tenure, he has amassed more than USD100 million of the company's shares through stock option exercise, executive grants, deferred compensation, and other benefit plans. Half of the shares either have not fully vested or are subject to other restrictions on their sale. The remaining half could be sold at any time, but he is reluctant to sell more than USD1 million in any given year due to social pressures from his coworkers. Restrepo plans to retire in five years, at which time he would liquidate most of the shares.

Restrepo consults with Darian Williams for advice on ways to monetize his holdings and gain diversification without selling the shares outright. Restrepo's cost basis on the shares is under USD10 million. Despite their relatively short trading history, the shares are quite liquid. As is typical of such companies, they are also subject to high volatility. Exchange-traded derivatives are available, and Williams considers these as well as OTC derivatives among potential options.

Restrepo's goals for any transaction include:

- locking in a significant portion of his gains,
- not triggering excessive tax liabilities,
- achieving broader diversification, and
- avoiding large contractual cash outflows prior to liquidation.

After considering a short sale against the box and a protective put option, Williams suggests a two-part strategy involving 1) borrowing against a portion of the shares to invest in a diversified portfolio and 2) implementing a zero-cost collar on the entire position. After considering the terms of the collar, Restrepo asks if there is a way to increase the potential upside without increasing the downside risk.

16. Which characteristic of Restrepo's shares is most supportive of trading through a

dealer rather than an exchange?

A. Liquidity

B. Volatility

C. Trading history

17. A disadvantage of using a short sale against the box is that it would not meet Restrepo's objective related to:

A. taxes.

B. diversification.

C. contractual cash outflows.

18. A protective put strategy is most likely to satisfy Restrepo's objective related to:

A. gains.

B. taxes.

C. diversification.

19. The objective in Restrepo's question regarding the collar would best be achieved using a:

A. put spread.

B. debit collar.

C. wider collar.

SOLUTIONS

1. A is correct. All jurisdictions grant citizenship to children born to citizens of that country, sometimes called jus sanguinis, "right of blood," or citizenship by descent. Because Gonzalez was born to Spanish parents, he is entitled to citizenship by birth.

2. C is correct. By having dual citizenship, Gonzalez would be able to access the health care systems of both Spain and the United States, giving him greater options for care. This results in greater administrative burdens and the potential for double taxation.

3. C is correct. Gonzalez's US assets will be treated as a deemed disposition, and he will have to pay unrealized capital gains taxes of 20%. His unrealized capital gains amount to USD2 million in investments and USD750,000 in his home, for a total of USD2,750,000. These will be taxed at the US investment income tax rate prior to relocation of 20%.

4. B is correct. The Social Security income will be subject to US taxes at 24% and Spanish taxes at 35%. However, he will receive a credit in Spain for the US taxes paid, resulting in a total tax rate equal to the Spanish rate.

5. B is correct. Even in community property regimes, pre-marital inheritances are generally separate property and not subject to division upon divorce.

6. B is correct. If the pretax return and tax rates are the same for both the donor and recipient, the tax-free gift's relative value simplifies to $1/(1 - T_e)$. In this case, $1/(1 - 0.25) = 1.333$.

7. A is correct. When after-tax returns for both the gift and the bequest are identical, the value of a taxable gift simplifies to $(1 - T_g)/(1 - T_e)$. In this case, $(1 - 0.2)/(1 - 0.25) = 1.067$.

8. C is correct. When the donor pays the gift tax, the taxes paid reduce the ultimate value of the estate and thereby the estate taxes. This essentially acts as a partial gift tax credit that equals the size of the gift multiplied by $T_g T_e$.

9. B is correct. It is generally advisable to leverage the first spouse's exclusion to transfer assets to beneficiaries other than the surviving spouse. That would mean bequeathing USD10 million to the children and the remainder to the surviving spouse. This would preserve the surviving spouse's exemption and leave only USD5 million subject to estate taxes.

10. C is correct. The relative value of the gift can be expressed as follows.

$$RV_{TaxableGift} = \frac{FV_{TaxableGift}}{FV_{Bequest}} = \frac{[1 + r(1 - t)]^n[1 - T_g + T_g T_e]}{[1 + r(1 - t)]^n(1 - T_e)}$$

$$= \frac{[1 + 0.08(1 - 0.1)]^{20}[1 - 0.2 + 0.2*0.4]}{[1 + 0.08(1 - 0.2)]^{20}(1 - 0.4)}$$

$$= 1.704$$

11. For the gift to Sara, additional considerations include:

    A. How the foreign jurisdiction treats the gift and its subsequent returns. This could increase or decrease its relative value compared to a gift to Michael.

    B. Whether the foreign jurisdiction is a separate property or community property

regime. This would impact whether her husband would have access to the gift in the event of divorce and may necessitate additional legal arrangements such as a postnuptial agreement.

12. C is correct. Primary capital is that held in the personal and market risk buckets. In the case of the Givens, that includes their house, cash and short-term bonds, and tax-deferred investment portfolio, for a total of USD4,500,000. This is USD2,000,000 less than is needed to cover the mortgage and lifetime spending needs.

13. B is correct. The sale to a strategic or financial buyer would provide immediate liquidity. However, Given's long time horizon suggests there may be more tax-efficient means of transfer, and his desire for control of the company to remain within the family and current employees argue against such a sale.

14. B is correct. Recapitalizations include issuing or selling new shares and increasing dividends (reduce internally generated capital).

15. A is correct. After the recapitalization, Given owns USD27 million in shares with a cost basis of USD1 million. The first USD1 million per year in gains would be taxed at 15%, with the remainder taxed at 20%. Selling USD1 million per year keeps all taxes at 15%. Selling the entire firm immediately subjects USD25 million to the additional 5% rate (USD27 – USD1 cost basis – USD1 at lower rate). As a result, the phased sale saves a total of USD1.25 million in taxes (USD25 million times 5%) over time.

16. A is correct. The liquidity of the stock is vital for the dealer to adjust its hedge. Volatility makes it more difficult to hedge, and most dealers will therefore not execute collars or use other hedging techniques on recent IPOs until an established trading history is verified.

17. A is correct. A short sale against the box typically triggers a taxable event. The proceeds often go into a diversified portfolio, and the net borrowing cost can remain low.

18. A is correct. A protective put strategy would ensure a minimum price for the shares. However, should the shares increase and the put expire worthless, it would create a taxable event. Furthermore, it would require an initial cash payment and do nothing to contribute to a more diversified portfolio.

19. B is correct. In a debit collar, Restrepo could pay a portion of the put premium out of pocket to offset the lower premium received from selling a higher-strike call option and thus increase the potential upside without being exposed to further downside risk. Both a wider collar and a put spread would subject Restrepo to greater downside risk should the price of his shares fall prior to the collar's expiration.

LEARNING MODULE

7

Transferring the Wealth

LEARNING OUTCOMES

Mastery	*The candidate should be able to:*
☐	discuss and recommend appropriate wealth management planning approaches for transferring wealth during the lifetime of the giver through gifts
☐	discuss and recommend appropriate wealth management planning approaches for transferring wealth at death through bequests and inheritance
☐	discuss and recommend appropriate wealth management planning approaches for the preservation of wealth across multiple generations through charitable giving and philanthropy

INTRODUCTION

1

Estate planning is a critical component of wealth management for private clients. Translating the goals of an individual or family into effective legal and tax-efficient solutions can be a challenging task, which requires an intimate knowledge of, among other things, the tax and inheritance laws in a particular jurisdiction. The challenge is often magnified when a client has family members, assets, or income in multiple jurisdictions. Increasingly, high-net-worth individuals and families have these types of international interests that require careful consideration by the private wealth advisor in deriving effective and tax-efficient wealth management solutions.

LEARNING MODULE OVERVIEW

- Lifetime gifts are typically used to minimize taxes on the transfer of wealth by reducing the value of a wealthy person's estate.
- Several strategies are available to maximize the transfer tax savings of lifetime gifts including the use of valuation discounts, trust structures, and charities.
- The goals of planning for wealth transfer at death are to maximize the benefits to the beneficiaries, minimize taxes, and minimize conflict among family members.

- The legal framework of a person's domicile may dictate the wealth transfer strategies that are available for the disposition of their estate upon death.
- The positive impact of the giving, tax advantages for both donors and charities, and wealth transfer/estate planning are key factors for deciding on a charitable giving program.
- Many vehicles exist in the United States for philanthropic giving, like donor-advised funds, charitable remainder trusts, and charitable lead trusts, all with specific features. Other countries and regions have their own structures for philanthropic giving, like stiftung, fondations, and fideicomisos, among others.

2 TRANSFERRING WEALTH: GIFTS

☐ discuss and recommend appropriate wealth management planning approaches for transferring wealth during the lifetime of the giver through gifts

Introduction

Transferring wealth may be accomplished in a variety of ways, including during one's lifetime through gifting as well as transferring wealth at one's death. This section explores transferring wealth through gifting—how to determine when gifting is appropriate given both tax and family considerations, how to determine the specific assets to gift, and how to determine the structure and recipient of the gift.

Gifting for Families and Others

Background

In an estate planning context, **lifetime gifts** are sometimes referred to as lifetime gratuitous transfers, or inter vivos transfers, and are made during the lifetime of the **donor**, who is the person making the gift. The term "gratuitous" refers to a transfer made with purely **donative intent**, that is, without expectation of anything in exchange. Gifts may or may not be taxed depending on the jurisdiction of the donor or **donee**, who is the person receiving the gift. Taxation may also depend on other factors such as the relationship between the donor and the donee, the tax status of the donor or donee (e.g., non-taxable, nonprofit entities), the time period between when the gift is made and when the donor dies, the type of asset (moveable versus immovable), and the location of the asset (domestic or foreign).

In order to understand whether, when, and how to make a gift, one must have an understanding of how (or whether) assets are taxed when their ownership is transferred at or before death. While taxes may be levied on income, spending, or wealth, it is the tax on wealth transfers (**transfer tax**) that is the purview of estate planning. The two primary forms of taxes on wealth transfers correspond to the primary ways of transferring assets: gifting assets during one's lifetime and bequeathing assets upon one's death through a **will** or via a different structure.

Taxes on a wealth transfer may be applied to the transferor (donor) or the recipient (donee). For example, in the case of gratuitous lifetime transfers (or gifts), some jurisdictions impose a **gift tax** that is generally the liability of the donor. Other jurisdictions impose the liability for such wealth transfer taxes on the donee. Note that a primary reason for imposing gift taxes is to restrain excessive gifting as a way of avoiding taxes due on bequests made at the time of one's death.

Gift taxes may be applied at a flat rate or based on a progressive tax rate schedule, where the tax rate increases as the amount of wealth transferred increases. Often the tax is applied after the deduction of a statutory allowance. The tax rate may also depend on the relationship between donor and donee. Transfers to spouses, for instance, are often tax exempt. Examples of jurisdictions where gift taxes are payable by the donor include the United States and the United Kingdom, while jurisdictions where gift taxes are payable by the donee (beneficiary) include, among others, Germany, the Netherlands, India, Japan, and South Korea.

KNOWLEDGE CHECK

1. Is the following statement true or false?

   Lifetime gratuitous transfers are made during the lifetime of the donor with the expectation of receiving something in exchange.

   Solution:

   False. Lifetime gratuitous transfers (gifts) are made during the lifetime of the donor and with purely donative intent, that is, without expectation of anything in exchange.

2. Knowledge of which of the following taxes is most relevant to understanding how, when, and whether to make a lifetime gift?

   A. Taxes on wealth

   B. Taxes on income

   C. Taxes on wealth transfer

   Solution:

   C is correct. While it is important to understand taxes on wealth and on income, a knowledge of taxes on wealth transfer is critical in this context because estate planning often seeks to minimize the wealth transfer taxes on gifts that may be imposed on either the donor or donee.

   A is incorrect because taxes on wealth do not directly relate to taxation of lifetime gifts.

   B is incorrect because taxes on income do not directly relate to taxation of lifetime gifts.

Determine Estate Planning Goals

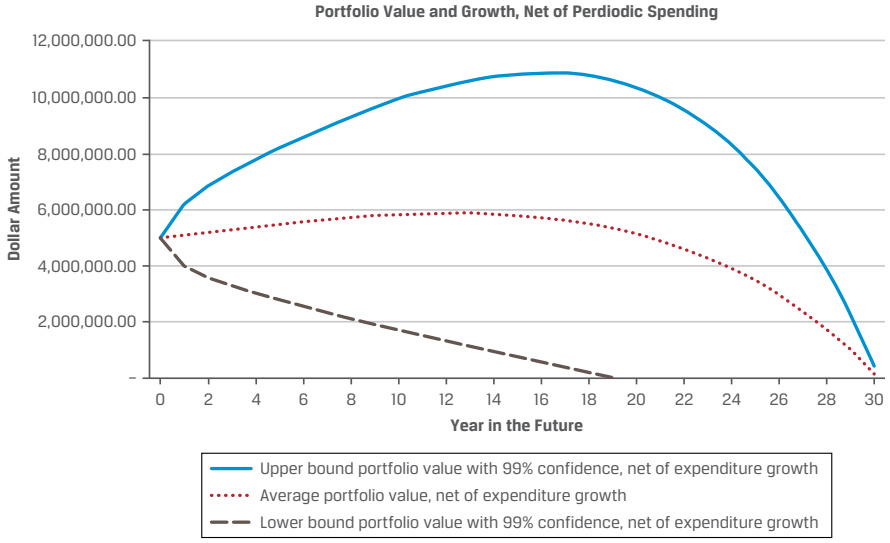
Developing an estate plan that will sustain a family and their descendants over multiple generations is a challenging task. A mathematical reality is that the sheer number of family members has a tendency to grow exponentially from one generation to the next as members of subsequent generations propagate, often doubling from one generation to the next.

To put the problem into perspective, consider the case of a 60-year-old couple with two adult children and a USD 10 million portfolio. They would like to leave USD 2 million to each child and donate USD 1 million to their favorite charity. These

dispositions would leave the couple with USD 5 million. Likely a key concern is how much they can spend from their USD 5 million portfolio without depleting their resources before the end of their lifetimes, which probably means sustaining wealth for at least another 30 years. Estimates vary, but researchers place the sustainable spending rate at between 3.5% and 6% of the initial portfolio value, if the remaining portfolio value and spending increases by the inflation rate in subsequent years.

Such a scenario is depicted graphically in Exhibit 1. In the case, with spending at just 4.3% of the initial portfolio, portfolio value growing at 6.5% annually (with the standard deviation of returns at 10%), and an inflation rate of 5.0% annually, there is a 99% chance that couple's portfolio will be nearly exhausted at the end of the 30-year horizon.

Exhibit 1: Spend-Down of Principal in a Portfolio



Source: Aspequity, Inc.

To many, these sustainable spending rates are surprisingly modest and illustrate how easily a family can adopt a spending rate that is unsustainable and that will exhaust the entire portfolio value, especially over a time horizon that extends beyond one generation. Exacerbating the problem further is the potential erosion of portfolio value caused by taxes each time assets are transferred.

Difficulties also arise when managing the conflicting interests within and across generations. The first generation's wealth transfer goals are often informed by the character, maturity, and life circumstances of the individuals involved. In any case, the starting point in developing an estate plan is deciding how much wealth to transfer and whether to transfer wealth to future generations, philanthropic causes, or elsewhere. The answers to these questions begin with an understanding of the spending needs of the first generation, a topic that has been addressed in earlier private wealth readings.

Strategies for Making Lifetime and Charitable Gifts

Transfer Tax Savings

In the estate planning context, gifts are often made to reduce overall transfer taxes for bequests made at the time of one's death. In jurisdictions having an **estate tax**, where the tax is paid by the transferor (i.e., the estate), or an **inheritance tax**, where the tax is paid by the recipient, gifting during one's lifetime has the advantage of lowering the value of the taxable transfer, thereby lowering estate or inheritance taxes. The exception is where under applicable law the value of the gift is added back to the estate for estate or inheritance tax purposes. For example, Italy and Spain include gifts in the donor's estate that are made within five years of their death. To mitigate this tax minimization strategy, jurisdictions that impose estate or inheritance taxes typically also impose gift or donation taxes.

Some gifts can escape transfer tax by falling below periodic or lifetime allowances. South Africa, for example, allows taxpayers to make tax-free gifts of up to ZAR 100,000 per tax year. UK taxpayers may make annual gifts of GBP 3,000 that escape gift tax. Germany has allowances for gifts to close family members, and the size of the allowance depends on the relationship between the donor and the donee. Each parent may make a EUR 400,000 gift to a child (including stepchild, adopted child, or child born out of wedlock) every 10 years. This exemption applies to each parent, so a couple may gift EUR 800,000 total without gift tax, allowing a substantial amount of wealth to be transferred over time.

Other types of exclusions or relief may apply, as well. In France, for instance, a 50% tax relief applies to gifts from donors less than 70 years old, and a 30% tax relief applies if the donor is between 70 and 80 years old. It is therefore common to be able to transfer some assets by gift in a tax-efficient manner. Exhibit 2 shows gift and estate tax rates, allowances, and who bears the taxes in several different countries as of 2023.

Exhibit 2: Gift and Estate Tax Rates for Selected Jurisdictions

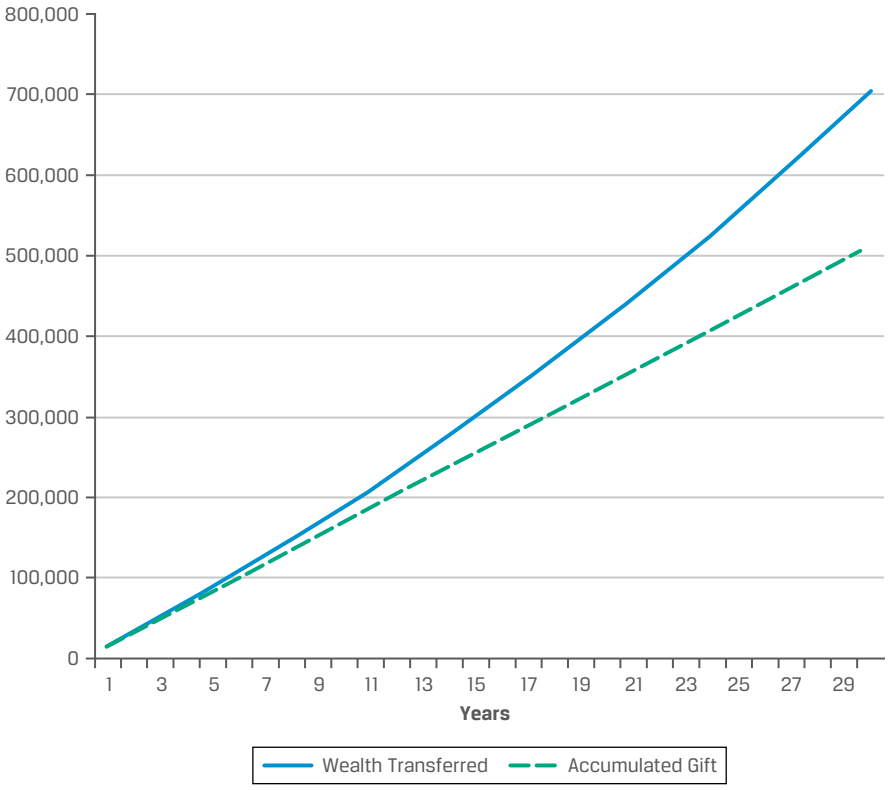
Jurisdiction	Maximum Gift and Estate Tax Rate (%)	Allowances	Taxes Paid by:
Japan	55.0	Spousal exemption and up to ¥10 million per statutory heir	Donee
Belgium	40.0[a]	Minor exemptions	Donee
Netherlands	20.0[b]	Partner exemption of up to EUR 723,526	Donee
United Kingdom	40.0	Unlimited spousal or partner exemption	Donor
South Korea	50.0	Spousal exemption of up to ₩600 million; ₩50 million for a child of the deceased	Donee
United States	40.0	First USD 12.92 million is exempt from taxation for citizens and domiciliaries. Unlimited spousal exemption for surviving spouses who are citizens.	Donor

Note: Tax rates are as of January 2023.
[a]*Lower rates for spouses and direct descendants and depends on property type.*
[b]*For partner and children. Up to 40% for other persons.*
Data Source: EY 2023 Worldwide Estate and Inheritance Tax Guide

Even in jurisdictions with relatively small annual exclusions, a gifting program that is started early and implemented over long periods of time can transfer substantial wealth in a tax-efficient manner.

In the United States, for example, a donor's annual gift exclusions are limited to USD 17,000 per year (as of 2023), per donee (e.g., a parent may annually transfer USD 17,000 to each child or USD 34,000 from both parents). Exhibit 3 shows that an annual gifting program of transferring USD 17,000 per year gift-tax free at the beginning of each year over a 30-year period transfers over USD 703,000 inflation-adjusted dollars at a 6% nominal return that is taxed at 25% annually with a 2.5% inflation rate.

Exhibit 3: Inflation-Adjusted Wealth Transferred



Source: CFA Institute

The dashed line in Exhibit 3 represents the accumulated nominal value of the gifts themselves, excluding investment returns. After 30 years, the gifts total USD 510,000 (= USD 17,000 × 30). If the donor had kept this amount, it would have increased the value in their estate and their estate tax liability. With gifting, any appreciation of the gifted amounts also escapes estate tax. Given the assumptions noted above, there would be approximately USD 193,000 of real appreciation (after adjusting for inflation), for a total value of USD 703,000.

KNOWLEDGE CHECK: VALUE OF GIFTING USD 17,000 ANNUALLY OVER 30 YEARS

Assume the following:

- Annual tax-free gifts of USD 17,000 are made at the beginning of each year for 30 years.
- Nominal return is 6% annually.
- Capital gains tax rate is 25%, assessed annually at year end.
- Annual inflation rate is 2.5%.

1. Determine the real after-tax value of the gifts at the end of the 30-year horizon.

   Solution:

   Using the assumptions given, the real after-tax investment return over the period is approximately 2.0% annually.

   $$(6.0\% \times (1 - 0.25)) - 2.5\% = 2.0\%$$

   The real after-tax value of the gifts in 30 years using the future value of an annuity due formula is

   $$A \times (1 + r)\left(\frac{(1 + r)^n - 1}{r}\right),$$

   where

   $$A = \text{USD } 17,000,\ r = 2\%,\ \text{and } n = 30.$$

   Therefore, the real after-tax value of the gifts is USD 703,450, as follows:

   $$\text{USD } 17,000 \times (1 + 0.020)\left(\frac{(1 + 0.020)^{30} - 1}{0.020}\right) = USD\ 703,450$$

As an alternative to the above scenario, if a tax-efficient investment strategy is used, one that, for example, defers the 25% tax on investment returns until the end of the investment horizon, then the accumulated sum of the gifts increases to almost USD 809,000. Because we are assuming real inflation-adjusted returns, the USD 809,000 sum represents the amount of capital that can be transferred in today's dollars and can therefore be a sizable proportion of many estates.

The benefit of such a tax-efficient strategy is that appreciation on gifted assets is effectively transferred to the donee without gift or estate taxes. Importantly, appreciation on the gifted assets is likely still subject to tax on investment returns (e.g., dividends and capital gains) whether they are transferred to a donee (as in this alternative scenario) or whether the assets remain in the donor's estate. But if the tax-free gift had not been made and had remained in the estate, the appreciation on it would have been subject to estate or inheritance tax.

KNOWLEDGE CHECK: VALUE OF TAX EFFICIENTLY GIFTING USD 17,000 ANNUALLY OVER 30 YEARS

Assume the following:

- Annual tax-free gifts of USD 17,000 are made at the beginning of each year for 30 years.

- Nominal return is 6% annually.
- Capital gains tax rate is 25%, deferred and payable once at the end of the 30-year horizon.
- Annual inflation rate is 2.5%.

1. Determine the real after-tax value of the tax-efficient gifts at the end of the 30-year horizon.

   Solution:

   Using the assumptions given, the real pre-tax investment return over the period is 3.5% annually.

   $$6.0\% - 2.5\% = 3.5\%$$

   The value of the accumulated gifts, excluding investment returns, is USD 510,000.

   $$A \times n = \text{USD } 17{,}000 \times 30 = \text{USD } 510{,}000$$

   The real pre-tax value of the gifts in 30 years using the future value of an annuity due formula, and 3.5% for *r*, is USD 908,301.

   $$A \times (1 + r)\left(\frac{(1 + r)^n - 1}{r}\right) =$$

   $$\text{USD } 17{,}000 \times (1 + 0.035)\left(\frac{(1 + 0.035)^{30} - 1}{0.035}\right) = \text{USD } 908{,}301$$

   The taxable capital gain is USD 398,301:

   $$USD\ 908{,}301 - USD\ 510{,}000 = USD\ 398{,}301.$$

   The real after-tax capital gain, at the 25% capital gains tax rate, is USD 298,726:

   $$\text{USD } 398{,}301 \times (1 - 0.25) = USD\ 298{,}726$$

   Therefore, the real after-tax value of the tax-efficient gifts at the end of the 30-year horizon is USD 808,726, as follows:

   $$\text{USD } 510{,}000 + \text{USD } 298{,}726 = \textbf{USD } 808{,}726$$

Using Valuation Discounts

Recall that our earlier private wealth readings covered several methodologies for estimating a private wealth client's required core capital, based on their lifetime spending and liquidity needs, and their available surplus capital. These methods include the life balance sheet approach and Monte Carlo simulation analysis, among others. The key point here is that these methods can facilitate an informed determination about the size of gifts that are possible during the client's lifetime, without jeopardizing their lifestyle.

Once the decision to make a gift is made, and the amount of capital that can be transferred is determined, then appropriately selecting the assets to gift can maximize the value of the gift. Transfer taxes may also be mitigated by transferring assets that qualify for valuation discounts (or, in appropriate cases, structuring assets to qualify for such discounts). Typically, tax is levied on the fair market value of the asset being transferred, which is a straightforward determination in the case of cash or marketable securities.

However, if shares in a privately held family business are being transferred, for example, then establishing fair market value is not straightforward and requires a valuation according to some pricing model or models, which, in turn, requires assumptions. In addition to the inputs that must be estimated or forecasted to determine the intrinsic value of an otherwise similar publicly traded company, the valuation of privately held companies often involves discounting estimated future cash flows at a higher cost of capital to reflect the lack of liquidity associated with their shares. Estimates of the average discount for lack of liquidity (i.e., illiquidity discount) range from 20% to 25% of the value of an otherwise identical publicly traded company. The size of the discount tends to be inversely related to the size of the company and its profit margin.

CASE STUDY

Illiquidity Discount for Gifts of Shares by the Riveras

Herbert and Jane Rivera are US citizens and domiciliaries, and they are each 60 years old. They have three adult children—Don, Greg, and Tina. Jane has an investment portfolio, including mainly publicly traded securities with some alternative assets, with a fair market value of approximately USD 50 million. Herbert and his brother Michal each own 50% of an education services company they started several years ago, with a recent valuation of USD 75 million. The company's shares are governed by a buy-sell agreement between the brothers that limits the ability to sell the shares.

Herbert and Jane would like to begin making gifts of their assets to their children to lower their expected estate taxes at their deaths. If Herbert were to make a gift of 10% of his one-half ownership interest in the company, he believes the stake would be valued with a discount of between 20% to 25% due to its illiquidity.

1. Determine the value of Herbert's potential gift of shares, assuming a 25% illiquidity discount.

   Solution:

   Herbert's gift of 10% of his interest in the company before any discounts would have a fair market value of USD 3.75 million (= USD 75 million × 0.5 × 0.1). After applying a 25% discount to this value, the value of the potential gift of shares is reduced to USD 2,812,500 (= USD 3.75 million × (1 – 0.25)).

If the shares being transferred represent a minority interest in the privately held company, an additional discount is taken for the lack of control associated with a minority interest. This valuation discount is distinct from, but not independent of, an illiquidity discount because positions of control are more marketable than minority positions that lack control. Lack of control discounts resulting from minority stakes can be very large, ranging between 25% and 40%, but their interaction with illiquidity discounts is not additive. For example, if a stake in a privately held business warrants a 20% illiquidity discount and a 35% lack of control discount, then the combined discount may be multiplicative and will result in a lower figure than 55%, as follows:

$[(1 - 0.20) \times (1 - 0.35)] - 1 = -0.48$ or a 48% combined discount.

CASE STUDY

Lack of Control and Illiquidity Discounts for Gifts of Shares by the Riveras

Continuing from the above case study, Herbert's potential gift to his children of 10% of his one-half share of the company also represents a minority interest in the company, thereby allowing an additional discount for lack of control. Assume that the allowable lack of control discount is 40%.

1. Calculate the value of Herbert's potential gift given the allowable discount for lack of control of 40%.

   Solution:

   The 25% illiquidity discount and 40% lack of control discount would interact multiplicatively, resulting in a combined 55% discount, as follows:

   $$[(1 - 0.25) \times (1 - 0.40)] - 1 = -0.55$$

   Applying the combined discount to the fair market value of the potential gift results in a value of USD 1,687,500 [= USD 3.75 million × (1 – 0.55)].

Transferring assets subject to valuation discounts reduces the base on which transfer tax is calculated and hence reduces the transfer tax. For this reason, high net worth investors in some jurisdictions may intentionally create illiquidity and lack of control by placing assets in a **family limited partnership (FLP)**. Rather than gift or bequeath the underlying assets, the first generation transfers minority interests in the FLP, which also is illiquid, to separate individuals. The lack of liquidity and control of an FLP structure may make it eligible for valuation discounts in some jurisdictions. In general, FLPs comprising cash and marketable securities will receive less of a discount than a privately held operating company. Taxing authorities generally scrutinize these types of transactions very closely. These structures must be carefully crafted by experienced attorneys to ensure they qualify for the maximum discounts allowable.

CASE STUDY

Transferring via the Rivera Family Limited Partnership

Continuing from the above case study, assume that Herbert's brother, Michal, is not in favor of Herbert gifting the company shares to his children. So, given their buy-sell agreement, this transaction is not possible. Given this situation, Jane would now like to gift 25% of her investment portfolio to the children while minimizing the value of the gift for tax purposes.

1. Describe how Jane might transfer the desired portion of her investment portfolio, at minimum value, to her children.

   Solution:

   Jane could contribute her investment portfolio to an FLP, the Rivera Family Limited Partnership, and then make a gift of 25% of the FLP to her children. If Jane gifts 25% of the FLP, and assuming the combined lack of liquidity and lack of control discount for the FLP is 20%, then the value of the gift of FLP shares for gift tax purposes would be USD 10,000,000 (= USD 50 million ×

0.25 × [1 – 0.20]). This compares to USD 12,500,000, assuming a direct gift of the investment portfolio.

FLPs may have non-tax benefits as well. By pooling the assets of multiple family members together, the family can gain access to certain asset classes requiring high minimum investments (e.g., hedge funds, private equity, venture capital), which may be prohibitively large for the individual family members to invest in alone. An FLP also allows participating family members to share in a pro rata fashion in the gains and losses of family investments. This equitable distribution of gains and losses can be an important consideration in some family dynamics.

KNOWLEDGE CHECK

Laurie owns a 1% stake in Bio-Widget, Inc., whose stock is publicly traded on the New York Stock Exchange. She purchased the stock 20 years ago for USD 100,000. Its current fair market value is USD 10 million. Laurie is considering making a gift of 10% of her holding in Bio-Widget to her children.

1. What is the value of this gift for tax purposes?

   A. USD 100,000

   B. USD 1 million

   C. USD 1 million, less a discount of 15% for lack of control

   Solution:

   B is correct. The value of this gift for tax purposes is USD 1 million because gifts are valued at their current fair market value, not at their cost to the donor, and there is no lack of control discount applied to gifts of publicly traded securities.

   A is incorrect because USD 100,000 is what Laurie paid for the stock, not its current fair market value. Gifts are valued at their current fair market value, not at their cost to the donor.

   C is incorrect because there is no lack of control discount applied to gifts of publicly traded securities.

Continuing with the above example, now assume that Laurie directs her attorneys to set up an FLP. She will transfer the Bio-Widget stock together with other investments in publicly traded securities and some alternative assets, with a combined value of USD 20 million, to the FLP. Laurie intends to make a gift of 10% of the FLP shares to her children.

2. Is the following statement true or false?

   Laurie's gift will be valued for tax purposes at USD 2 million.

   Solution:

   False. If Laurie's attorneys structure the FLP appropriately, then her gift should qualify for both an illiquidity discount as well as a lack of control discount due to the characteristics of the gifted FLP shares. Therefore, Janelle's gift will be valued for tax purposes at less than USD 2 million.

Trusts

The gratuitous transfers discussed above are often implemented through structures that allow planning for taxes and produce a non-tax benefit. Common estate planning tools include, among others, trusts (a common law concept) and foundations (a civil law concept). The structure of each has implications for how assets are transferred and controlled, whether assets are protected from potential claims of future creditors, and how assets are taxed.

What is a Trust?

A **trust** is an arrangement created by a **settlor** (sometimes called a **grantor**), the person whose assets are used to create the trust. The assets transferred to the trust may be referred to as capital, corpus, or principal. When the grantor transfers assets to the trust, they name a **trustee**. Depending on the type of trust and jurisdiction, the grantor can name themselves as a trustee themselves, or another individual, or an institution (i.e., trust company). The fiduciary duty of the trustee is to manage the assets for the benefit of the beneficiaries. As a result, the beneficiaries are considered to be the beneficial, not legal, owners of the trust assets. (Beneficial ownership is a legal term that means that certain rights, such as the right to the income from the securities or the right to live in the house, belong to the **beneficiary** but that the title to, or actual ownership of, the securities or the property is held by another person or entity.) The terms of the trust relationship and the principles used by the trustee to manage the assets and distributions to the beneficiaries are outlined in the trust document, which is sometimes referred to as the **trust agreement**.

Trusts can be categorized in many ways, but two dimensions are particularly important in understanding their character. First, trusts can be either revocable or irrevocable. In a **revocable trust** arrangement, the settlor retains the right to rescind the trust relationship and regain title to the trust assets. Under these circumstances, the settlor is generally considered to be the owner of the assets in the trust for tax purposes in most jurisdictions. As a result, the settlor is responsible for tax payments and reporting on the trust's investment returns. Additionally, the settlor's revocation power makes the trust assets vulnerable to the reach of creditors having claims against the settlor.

Alternatively, where the settlor has no ability to revoke the trust relationship, the trust is characterized as an **irrevocable trust**. In an irrevocable trust structure, trustees may be responsible for tax payments and reporting in their capacity as owners of the trust assets for tax purposes. Since in an irrevocable trust the assets are no longer considered to be owned by the settlor, this structure generally provides greater asset protection from claims against a settlor than a revocable trust. This is true provided the settlor was neither insolvent nor rendered insolvent when they settled the trust, and any such creditor claims arose after the trust settlement date.

Exhibit 4 summarizes the general distinctions between revocable and irrevocable trusts, noting that these differences are not strictly definitive and may vary by jurisdiction.

Exhibit 4: Some Distinctions Between Revocable and Irrevocable Trusts

Characteristics	Trust Type	
	Revocable Trust	**Irrevocable Trust**
Trust can be Rescinded	*Yes*	*No*
Title to Ownership (for Tax Purposes) Held by …	*Settlor (grantor)*	*Trustee*

Characteristics	Trust Type	
	Revocable Trust	Irrevocable Trust
Responsible for Taxes and Reporting	*Settlor (grantor)*	*Trustee*
Assets Reachable by Settlor's Creditors	*Yes*	*No*

Second, trusts can be structured to be either fixed or discretionary. Distributions to beneficiaries of a **fixed trust** are specified in the trust document to occur at certain times or in certain amounts. In contrast, if the trust document enables the trustee to determine whether and how much to distribute based on a beneficiary's general welfare, then the trust would be called a **discretionary trust**. Under a discretionary trust, the beneficiaries have no legal right to income generated by the trust or to the assets in the trust itself. Therefore, the creditors of the beneficiaries cannot as easily reach the trust assets. Exhibit 5 summarizes these distinctions between fixed and discretionary trusts, noting that these differences are not strictly definitive and may vary by jurisdiction.

Exhibit 5: Some Distinctions Between Fixed and Discretionary Trusts

	Trust Type	
Characteristics	Fixed Trust	Discretionary Trust
Distributions to Beneficiaries ...	*Amount and timing are specified*	*Amount and timing are determined by trustee*
Beneficiaries Have Legal Right to Trust Assets or Income	*Yes*	*No*
Assets Reachable by Beneficiaries' Creditors	*Yes*	*No*

Why Use a Trust?

There are several main objectives for using a trust structure:

- *Control*. A common motivation for using a trust structure is to make resources available to beneficiaries without yielding complete control of those resources to them. For example, trusts can be used to provide resources to beneficiaries who may be unable or unwilling to manage the assets themselves—perhaps because they are young, immature, or disabled. Or perhaps the settlor desires that the assets be used for particular purposes, like university tuition, assisted living expenses, and so on.
- *Asset protection*. In general, creditors are unable to reach assets that an individual does not own. As discussed, an irrevocable trust can protect assets from claims against the settlor, and discretionary trusts can protect assets from claims against the beneficiaries. A **community property** jurisdiction is a marital property regime under which most property acquired by a spouse during a marriage is owned jointly by both spouses and is divided upon divorce, annulment, or the death of a spouse. In community property jurisdictions, trusts may also be used to ensure that ownership of a family business does not get diluted due to community property laws. Trusts can also be used to avoid **probate**, the legal process to confirm the validity of a will so that interested parties can rely on its authenticity.

- *Tax-related considerations.* Trusts can also be used for tax management purposes. For example, under a progressive tax rate regime, a wealthy individual's income may be taxed at relatively high rates. That individual might transfer assets to a trust where the income may be taxed at lower rates or where the income is paid to a beneficiary who is taxed at lower rates. Moreover, if an irrevocable trust is structured as discretionary, the trustee can manage distributions to a beneficiary in accordance with the beneficiary's tax situation. Alternatively, a settlor may create a trust in a jurisdiction with a low tax rate.

Trust Duration

Trusts can be created to last for a certain number of years, or in some jurisdictions, trusts can last into perpetuity. The long-standing common law rule requiring that trusts could not exceed a certain number of years is known as the **rule against perpetuities**. That rule required that trusts must terminate within 21 years after the death of the last of a designated group of individuals who were alive when the trust was created. More recently, many states in the United States as well as certain countries have eliminated that rule and allow trusts to remain intact for a significantly longer period or even into perpetuity. These types of trusts are called **dynasty trusts**. They typically benefit multiple generations of a family and, in doing so, facilitate the creation of a family dynasty. Properly structured, these trusts escape most or all forms of wealth transfer taxation as they pass from generation to generation.

Often, high-net-worth individuals have wealth transfer goals that extend beyond the second generation (i.e., their children). In these cases, where permitted, transferring assets directly to the third generation (i.e., grandchildren) or beyond—or to a trust that benefits these multiple generations—may reduce transfer taxes. In jurisdictions that tax gifts or bequests, transfers from the first generation to the second will be taxed. The same capital may be taxed again if it is transferred from the second to the third generation. Transferring capital in excess of the second generation's needs for spending, safety, and flexibility, directly to the third generation, a technique known as **generation skipping**, may avoid a layer of this double taxation.

CASE STUDY

Generation Skipping with a Gift—The Kawaguchi Family

Kenichi and Fumiko Kawaguchi are Japanese citizens who have JPY 1 billion of first-generation capital they would like to transfer to fulfill their goals of securing a sound financial future for their children and grandchildren. Suppose that the capital to support their children amounts to JPY 800 million, leaving JPY 200 million of "excess" capital for the second generation that can be transferred to the third generation.

Japan imposes tax rates up to 50% on the recipient of a gift or inheritance. Suppose the second-generation excess capital of JPY 200 million is transferred twice—once from the first generation to the second in 10 years and again from the second to the third generation 25 years beyond that.

1. What is the real after-tax value of the gift at a 5% real rate of return after it has been transferred from the second generation to the third generation of the Kawaguchi family?

   Solution:

   The future value of the gift that has been transferred from the second to the third generation, so is taxed twice, at an approximately 5% real rate of return (e.g., 8% nominal return with 3% inflation) will be equal to just JPY 275,800,768, as follows:

$$\text{JPY } 200,000,000 \times \left[(1.05)^{10}(1-0.50)(1.05)^{25}(1-0.50)\right] = \text{JPY } 275,800,768$$

Now suppose that, after discussions with their tax attorney, the Kawaguchis decide to take advantage of a generation-skipping strategy to transfer their JPY 200 million gift directly to their grandchildren.

2. What is the real after-tax value of the gift at a 5% real rate of return after it is transferred via generation skipping directly to the third generation of the Kawaguchi family?

   Solution:

   If the Kawaguchis instead transfer their gift of JPY 200 million directly to their grandchildren via generation skipping, then the transfer is taxed only once, and the future value is now JPY 551,601,537, as follows:

$$\text{JPY } 200,000,000 \times \left[(1.05)^{35}(1-0.50)\right] = \text{JPY } 551,601,537$$

   Note that this amount is double the amount when the capital is taxed twice.

In general, the relative value of skipping generations to transfer capital that is considered excess for both the first and second generations is $1/(1 - T1)$, where T1 is the tax rate of capital transferred from the first to the second generation.

In at least one jurisdiction (the United States), the taxing authorities discourage this strategy by imposing a special **generation-skipping transfer tax**. This tax, in addition to the usual transfer tax, is imposed on transfers to, among others, grandchildren or subsequent generations and is intended to produce the same overall tax effect had the assets been passed sequentially through two generations. However, there is a large exemption to this tax (USD 12.96 million in 2023) that can be sheltered for multiple generations in a dynasty trust. Additionally, non-US persons are not subject to this tax and could shelter all of their assets from all US transfer taxes in a dynasty trust.

CASE STUDY

Generation-Skipping Planning Using a Trust—The Kawaguchi Family

Continuing from the above case study, assume that the Kawaguchi's children and grandchildren are US citizens who live in the United States. If they transfer the sum of JPY 200 million outright to their grandchildren, then at the death of the grandchildren, the United States will subject the funds to estate tax. The Kawaguchis are instead considering transferring the property into a trust.

1. Describe the type of trust that would be best suited for this transfer and why.

   Solution:

   A US-based irrevocable dynasty trust would be best suited for this transfer because the Kawaguchis, who are Japanese citizens, are not subject to any US generation-skipping taxes. Therefore, the trust can be held for the benefit of their grandchildren and future generations without paying any transfer taxes into perpetuity. The Kawaguchis should, however, consult with local Japanese counsel to determine the Japanese transfer tax consequences.

   Moreover, the trust should be created in a US state that has abolished rules against perpetuities, such as the state of Delaware. The trust should be discretionary to allow the trustees to keep the trust intact and to grow for future generations. Additionally, the trust will provide the grandchildren with protection against creditors and divorcing spouses and will allow for professional control and management of the gifted assets.

Gifts to Trusts

When a grantor wishes to make a gift to a trust for transfer tax purposes, that gift must generally be made to an irrevocable **inter vivos trust**, an irrevocable trust that is created and funded when the grantor is alive. If the trust is not irrevocable, then the transfer will not, in most jurisdictions, be considered completed by the grantor. An inter vivos trust is contrasted with a **testamentary trust**, which is a trust that is created under the will or estate plan of a deceased individual.

Taxation of Trusts

Jurisdictions impose tax on trusts using varying methodologies, so it is important to work with local tax counsel on understanding how a particular trust may be taxed. Importantly, trusts are often viewed by taxing authorities as vehicles for escaping or minimizing taxes and therefore may be taxed more onerously than individuals. In the United States, for example, trusts are taxed at the same rates as individuals, but the trust attains the highest income tax rate much more quickly than does an individual.

The tax laws of some jurisdictions, including the United States, allow irrevocable trusts to be created during one's lifetime that removes the gift from the grantor's estate, yet the grantor continues to pay income tax on the assets in the trust. In the United States, this type of irrevocable trust is called an **intentionally defective grantor trust**. The benefit of this type of trust is that it reduces the size of the taxable estate by removing three amounts: 1) the original corpus, 2) the future investment returns on the corpus, and 3) the taxes paid by the grantor on those investment returns. Moreover, the assets that have been gifted to the trust appreciate without erosion from income tax payments.

Many high-net-worth individuals throughout the world transfer their wealth by creating trusts in jurisdictions other than their home jurisdiction. Such a trust, an **offshore trust**, is a conventional trust established in a foreign jurisdiction, often a tax haven. For example, many Caribbean and Channel Island countries have no income taxes and have favorable trust laws enacted to attract the trusts of such individuals from around the world.

Offshore trusts are typically created to gain tax advantages, ensure confidentiality, achieve better asset protection, and/or access investment opportunities that may not be available in the grantor's home country. Besides the initial step, the process of setting up an offshore trust is similar for creating a conventional trust, and is summarized in Exhibit 6:

Exhibit 6: Process of Setting Up an Offshore Trust

Steps in Process	Description
Select a Jurisdiction	Based on the private wealth client's needs, research and then select a suitable country.
Engage Legal and Tax Experts	Consult with legal and tax experts familiar with trust and tax laws in both the client's home country and the chosen offshore jurisdiction. Understanding applicable laws and regulations is key, especially regarding repatriation of funds or income generation.
Draft the Trust Agreement	This is the primary document outlining the trust's terms and conditions.
Appoint Trustees	Typically, at least one trustee is required, and some jurisdictions may require a local trustee.
Transfer Assets to the Trust	Once established, assets can be transferred into the trust.
Ensure Regular Management	Ensure regular reviews and management of the trust's assets, compliance with local regulations, and any reporting requirements.

It is crucial to be aware of and abide by the legal and tax regulations related to offshore trusts in both the home country or countries of the settlor and beneficiaries and the jurisdiction where the trust is established. In some home countries, like the United States, there are stringent reporting requirements, and failure to comply can lead to severe penalties.

Non-Trust Jurisdictions

Civil law jurisdictions do not generally recognize trusts, although some civil law countries, such as Switzerland and Germany, have enacted trust legislation. Additionally, 14 countries have adopted a multilateral treaty known as the Hague Trust Convention. Under the Convention, each party to the Convention recognizes the validity of trusts regardless of whether that country has its own trust law. Therefore, as mentioned above, many individuals from countries that do not recognize trusts will create trusts in jurisdictions that do recognize them. Sometimes these trusts are created to avoid **forced inheritance rules** (which establish a legal obligation to leave a portion of one's estate to certain family members, typically children or descendants) in their home countries as well as to provide privacy and to avoid local probate.

As an alternative to using trusts in civil law jurisdictions, some individuals use civil law hybrid structures to implement their wishes. Liechtenstein's **Stiftungs** and **Anstalts** are two of such structures. An Anstalt is a hybrid between a company and a foundation; a Stiftung is more similar to an institution created for personal, non-commercial purposes. While these entities are recognized in civil law jurisdictions, they may not have certainty about their taxation in common law jurisdictions. Therefore, often founders of these entities convert them to a trust structure for their beneficiaries who live in common law jurisdictions.

BRIEF PRIMER ON COMMON LAW AND CIVIL LAW

Common Law and Civil Law: Common law, or case law, derives its authority from judicial decisions, setting precedents for future cases, and promoting legal consistency. On the other hand, civil law depends on detailed legal codes and statutes. Judges in civil law countries interpret the laws without the power to modify them.

Origins and Significance:

- *Common law* has its roots in medieval England under monarchs like Henry II. With decisions accumulating over time, it brought uniformity in rulings. Proliferated throughout the British colonies, countries like the United States, Canada, and Australia adopted it. The system's strength lies in its adaptability and the ability to evolve, granting judges the discretion to weigh individual case nuances.
- *Civil law* traces back to the Roman legal tradition, particularly the Corpus Juris Civilis commissioned by Emperor Justinian I. This structured system became foundational for European nations such as France, Germany, and Spain. Its significance comes from its explicitness, offering clear guidelines on rights and obligations for consistent law application.

Comparison: Both systems seek societal justice and address similar legal quandaries. Yet, they diverge in their methodology. While common law stresses judicial decisions, civil law hinges on its legal codes. Judges in common law mold the law, whereas their counterparts in civil law stick to code interpretation.

Investment of Trusts

Trustees are required to invest trust assets in accordance with the law governing trust investments in the jurisdiction governing the trust. Throughout the United States and in most common law jurisdictions, that law is known as the **prudent investor rule**. The prudent investor rule is a codification of modern portfolio theory, requiring trustees to consider the purposes, terms, distribution requirements, and other circumstances of the trust when selecting investments in a trust. Among the circumstances required to be considered are

- general economic conditions;
- the possible effect of inflation or deflation;
- the expected tax consequences of investment decisions or strategies;
- the role that each investment plays within the overall trust portfolio;
- the investment's expected total return from income and appreciation/depreciation;
- the other resources of the beneficiaries;
- the need for liquidity, regularity of income, and preservation or appreciation of capital; and
- an asset's special relationship or special value, if any, to the purposes of the trust or to one or more of the beneficiaries.

Trustees are legally responsible to the beneficiaries to follow the prudent investor rule, and it is best practice to document the decision making pursuant to the rule.

CASE STUDY

Gift and Estate Planning for the Harper Family

John Harper (56 years old) is a founder and CEO of a privately owned supermarket chain recently valued by a financial consultant at USD 300 million. His wife, Breda Harper, is a 54-year-old housewife who took care of the family while John was building the business. The Harper family is based in a country with a common law regime. In addition to the business, John and Breda own

commercial property, with an estimated value of USD 10 million, and a house. Most of the family wealth is concentrated in the family business and real estate. John and Breda have three children:

- James (35 years old) has been helping his father run the family business. At this stage, James intends to launch an online retail business of his own, which he would like to finance partially with a loan. James is married and has a 10-year-old daughter and a 12–year-old son.
- Nick (30 years old) is a young artist and currently relies on the family income to cover his living expenses. Nick has no financial knowledge and is not interested in investments. His father would like to continue supporting Nick's lifestyle but would not be comfortable to let Nick manage his own funds. Nick is single.
- Ann (27 years old) is a pharmacist. She is married and has a 6-year-old daughter who requires special medical care, care that is financed from the income generated by the family business. Ann's husband works in corporate finance.

John intends to retire from running the family business and is thinking about passing the wealth to the next generations and creating a family legacy. After retirement, John and Breda would like to travel and support several philanthropic causes. They want to be actively involved in philanthropic activity and believe that their children and grandchildren should be involved in making philanthropic decisions as well.

1. Identify possible gift and estate planning objectives of the Harper family.

   Solution:

   At least seven possible gift and estate planning objectives are evident in the Harper family case facts presented:

   - *Income and liquidity*—A planning objective is to develop a strategy that provides sufficient income to support the desired lifestyle of John and Breda, to cover medical care costs for Ann's daughter, to cover living expenses of other family members who rely on family income (Nick), and to cover any tax obligations related to wealth transfer.
   - *Business succession*—John plans to retire, and the family needs to decide if the company will be run by a family member or by an outsider. The family also needs to decide if the company remains owned by the family or is sold to an external party.
   - *Control over assets*—As John is not comfortable with Nick managing his own money, John needs a solution that will separate investment and income distribution decisions from the beneficial ownership. Also, John would like to be actively involved in philanthropic decisions, thus he needs to maintain a certain degree of control over assets dedicated to philanthropy.
   - *Transferring assets in a tax-aware manner*—Another planning objective is for an asset transfer solution designed in a way that takes into account the jurisdiction-specific tax legislation.
   - *Asset protection*—As James is planning to use a loan to set up his online retail business, protection of family assets from potential creditors may be one of the estate planning objectives.

- *Preservation of family wealth*—The Harper family consists of several generations (parents, children, grandchildren) who may have different goals and interests in relation to the family business and wealth. A planning objective should be to develop a strategy that aligns the interests of all family members while preserving family wealth.
- *Achieving charitable goals*—A final planning objective is for a solution that provides sufficient resources and instruments for achieving the charitable goals of the family.

2. Discuss gift and estate strategies that can be used to achieve each of the planning objectives identified in your response to Question 1.

Solution:

- *Income and liquidity*—The Harper family has several members who rely on the family income; thus, investment strategies should provide sufficient ongoing income in the long term. The following investment products should be considered: public equities, fixed income, private equity, private debt, and REITS. Investment goals should be documented in the investment policy statement of the family alongside the risk and return objectives.
- *Business succession*—John wishes to retire. The main business succession options he has are as follows:
  - Keep both management and ownership of the business within the family. This might not be a plausible option, however, as the only person with the working knowledge of the business is James, who is planning to leave the family business and start his own online retail firm.
  - Hire an external manager and keep the business in family ownership.
  - Sell the business fully or partially to a third party or list its shares via an initial public offering.
- *Control over assets*—As John would like to provide for the living expenses of his children and grandchildren but is not comfortable with giving some of them control over the investment and distribution decisions, a discretionary trust may be used, which gives trustees the power to decide on investments and distributions based on the circumstances of the beneficiaries. It is important that John selects a current and successor trustee in a way that avoids creating any tensions within the family. For example, John could name himself a trustee and select an institutional trustee (i.e., trust company) as a successor to ensure that there is no conflict of interest among the family members.
- *Wealth transfer in a tax-aware manner*—John and Breda should consider available tax-free asset transfer allowances prescribed by law, such as spousal allowances or gifts to relatives. They should also consider if it makes sense to pass some assets to their grandchildren directly and what the tax implications would be, such as a generation-skipping tax. John should also consider if it makes sense to sell the business outright or put it into the trust for capital appreciation to occur outside of the estate.

- *Asset protection*—A trust structure can be used to protect the family's assets from creditors. An irrevocable trust can protect assets from claims against the settlor, and a discretionary trust can protect assets from claims against the beneficiaries.
- *Preservation of family wealth*—Creating a family governance system will help to identify and align goals of various family members as well as smooth the process of wealth transfer to the next generation.
- *Charitable goals*—As John would like to be actively involved in decision making related to charitable activities and has expressed a desire to also involve the next generations of his family, a private foundation is a more suitable asset transfer strategy than gifting to charities. A private foundation allows the donor to make decisions on the causes to support and to run various charitable projects. It also allows the family members to be involved.

QUESTION SET

1. Identify two characteristics of a family limited partnership (FLP) that can minimize transfer taxes.

   Solution:

   FLPs are typically characterized by 1) illiquidity and 2) lack of control. Rather than gift or bequeath the underlying assets, the first generation can create an FLP using the underlying assets and then transfer minority interests in the FLP to separate individuals. The lack of liquidity and lack of control of an FLP structure may make it eligible for valuation discounts, and therefore reduced transfer taxes, in some jurisdictions.

2. Describe three key roles in a trust.

   Solution:

   Three key roles within a trust are

   1. Settlor (grantor)—the individual whose assets are contributed to create the trust.

   2. Trustee—the individual (or company) whose duty it is to hold (or establish account(s)/structure(s) to hold) and manage the trust assets for the benefit of the beneficiaries.

   3. Beneficiaries—the individuals or entities (like charities) that are due to receive economic benefit (distributions) from the trust assets.

3. Which trust is most suitable if the settlor seeks to protect assets from creditors and wishes the amount and timing of distributions to be determined by the trustee?

   A. Revocable fixed trust

   B. Irrevocable discretionary trust

   C. Revocable discretionary trust

   Solution:

   B is correct. In an irrevocable discretionary trust, the settlor's assets are afforded protection from creditors, and the amount and timing of distributions to beneficiaries from the trust are determined by the trustee.

A is incorrect because in a revocable fixed trust, the settlor's assets are not protected from creditors, and the amount and timing of distributions to beneficiaries are fixed.

C is incorrect because in a revocable discretionary trust, the settlor's assets are not afforded protection from creditors, but the amount and timing of distributions are determined by the trustee.

3 TRANSFERRING WEALTH: BEQUESTS AND INHERITANCES

- ☐ discuss and recommend appropriate wealth management planning approaches for transferring wealth at death through bequests and inheritance

Introduction

In the previous section, we explored the various strategies for transferring wealth during lifetime through gifting. Upon death, an individual's assets will pass to their intended beneficiaries if they plan appropriately. Without proper planning, however, an individual's assets may not pass as they intended. The assets may be unnecessarily eroded by transfer taxes or may pass to unintended beneficiaries. This section will discuss various legal frameworks that govern the disposition of assets at death and the methods that can be used to effectuate an individual's dispositive goals upon death.

We start with some key definitions. A **bequest** refers to the act of giving or leaving property to a specified person(s) through the provisions of a will. It is a directive within a will that instructs what should be done with the **testator**'s (the person making the will) assets upon their death. An **inheritance** is the assets that a person receives as a beneficiary after someone's death, whether through a will, a trust, or **intestacy**, where the disposition of the assets of a decedent without a valid will are decided by the courts.

Bequests

A **testamentary** plan is the structure of an individual's plan for the transfer of their wealth at death. How one structures the plan may depend on the jurisdiction where the individual lives. Various legal frameworks exist that impact how a plan may be structured.

Legal frameworks

One important factor that impacts how a testamentary plan may be structured is whether an individual is domiciled in a civil law or a common law jurisdiction. As noted previously, civil law is derived from Roman law and is the world's predominant legal system—it relies on explicit guidelines on rights and obligations for consistent application of the law. Common law traces its heritage to England—it is adaptable, relies on case precedents, and evolves based on judicial decision making.

Common law jurisdictions, such as the United Kingdom and the United States, generally allow a testator testamentary freedom of disposition by will; that is, the right to use their own judgment regarding the rights others will have over their property after

their death. Conversely, most civil law countries place restrictions on such disposition through forced inheritance or forced heirship rules, which require the decedent to benefit certain individuals such as their children and spouse.

Countries following **Shari'a law**, the law of Islam, have substantial variation but are more like civil law systems regarding estate planning, as suggested by Robinson (2021). Because Shari'a law is often not the officially recognized law, individuals wishing to follow Islamic guidance on inheritance can usually do so through the making of a will, as long as the contents of the will are not in conflict with the official law of their country.

As discussed in Section 2, the legal concept of a trust is unique to common law. Civil law countries may not recognize foreign trusts, especially those countries that are not parties to the Hague Convention. As noted previously, under the Convention, each party recognizes the validity of trusts regardless of whether that country has its own trust law, for example, civil law countries like France and Germany.

Forced Heirship

Ownership, like other legal principles in civil law, is a precise concept tempered by statutes that place certain limitations on the free disposition of one's assets. **Forced heirship** regimes are the norm in European Union jurisdictions and other civil law jurisdictions, such as Brazil, Japan, and Switzerland. They establish a legal obligation to leave a portion of one's estate to certain family members, typically children or descendants. Under forced heirship rules, for example, children have the right to a fixed share of a parent's estate. This right may exist whether the child is estranged, adopted, or conceived outside of marriage. Forced heirship rules supersede the terms of a will. Consequently, locating assets abroad and creating a structure in a country in which this restriction is not recognized (typically, a common law country) is the only way to avoid forced heirship rules.

Wealthy individuals may attempt to move assets into an offshore trust governed by a different domicile to circumvent forced heirship rules. They may alternatively attempt to reduce a forced heirship claim by gifting or donating assets to others during their lifetime to reduce the value of their final estate upon death. In several jurisdictions, including some governed by Shari'a law, however, claw back provisions may bring such lifetime gifts back into the estate to calculate, for example, the child's share. If the assets remaining in the estate are not sufficient to cover their claim, the child may be able to recover their forced share from the donees who received the lifetime gifts.

Community vs. Separate Property Regimes

Spouses typically have similar guaranteed inheritance rights under civil law forced heirship regimes. In addition, spouses have marital property rights, which depend on the marital property regime—typically either community property or separate property—that applies to their marriage. For example, under **community property** regimes in the United States, each spouse has an indivisible one-half interest in income earned and in certain assets acquired during marriage. Gifts and inheritances received before and after marriage may still be retained as separate property. Upon death of a spouse, the property is divided, with ownership of one-half of the community property automatically passing to the surviving spouse. Ownership of the other half is transferred by the will through the probate process, the legal process to confirm the validity of the will.

In **separate property** regimes, prevalent in civil law countries, each spouse can own and control property as an individual, which enables each to dispose of property as they wish, subject to a spouse's other rights. Italian forced heirship rules, for example, apply to *both* the decedent's community property and separate property (i.e., acquired before marriage). It is noteworthy that, in many civil law countries, couples can elect the marital property regime that will apply to their property.

Inheritances acquired during a marriage or before marriage may be treated differently. Some jurisdictions recognize inheritances as separate property, while others might consider them community property if they were acquired during the marriage.

Community property regimes generally dictate that assets acquired during the marriage are considered jointly owned by both spouses. Inherited assets in the United Kingdom, for example, that are available to a spouse may be considered a part of family assets and are thus subject to a 50/50 division in the event of a divorce. While there are clearly good reasons why the United Kingdom and a number of other countries take similar approaches to the division of assets, this can have a significant impact on a family's objective to keep a family business within the family for multiple generations. Taking the risk of divorce into account is therefore critical, particularly given that in some countries as many as half of marriages end up in divorce. Trusts and other arrangements can provide protection for a family business depending on how they are structured and implemented.

Inheritances Received Before vs. During Marriage

The treatment of inheritances can be nuanced and can vary depending on whether they are received before or during the marriage.

Inheritances Received Before Marriage:
Inheritances received by one spouse before the marriage are generally treated as separate property under community property regimes. This means that if a spouse inherits property, money, or other assets prior to the marriage, then those assets are usually considered the sole property of the inheriting spouse. They are not automatically subject to division upon divorce, as they are not part of the marital community property. For example, suppose Vijay inherits a piece of valuable ancient artwork from his grandmother a year before he marries Aisha. If Vijay and Aisha later divorce in a community property jurisdiction, the artwork would likely be considered Vijay's separate property and would not be subject to division as part of the marital assets.

Inheritances Received During Marriage:
Inheritances received by either spouse during the marriage can be more complex to categorize. In *community property regimes*, the general rule is that assets acquired during the marriage are considered community property, subject to joint ownership and division upon divorce.

However, some jurisdictions make exceptions for inheritances received during marriage. For example, in certain U.S. community property states like California, if one spouse receives an inheritance during the marriage, that inheritance is considered the separate property of the receiving spouse *if the inheritance is not commingled with community property funds.* For example, if the inheritance was not kept separate but was instead deposited into a joint bank account, then this commingling would categorize the inheritance as community property.

In *separate property regimes*, assets acquired before the marriage or during the marriage through inheritance or gift are considered the sole property of the individual who received them, and they are not automatically subject to division in the event of divorce. In fact, inheritances are generally treated as separate property regardless of when they are received—before or during the marriage. The inheritance therefore is not subject to division upon divorce and remains the exclusive property of the inheriting spouse.

Inheritances received by an individual during the marriage are also typically treated as separate property in separate property regimes, provided the inheriting spouse does not commingle the inherited funds with joint accounts or use them for joint expenses.

Although separate property regimes generally uphold the principle that inheritances remain the sole property of the inheriting spouse, there are important factors to keep in mind, as presented in Exhibit 7:

Exhibit 7: Factors That May Transform Separate Property into Community Property

Factor	Description
1. Commingling of Funds:	If inheritance funds are mixed with joint accounts or used for joint expenses, they may lose their separate property status and be treated as marital assets subject to division.
2. Increase in Value:	If an inheritance is invested or used to acquire additional assets, any increase in value during the marriage might be subject to division in some jurisdictions.
3. Transmutation:	In some cases, separate property can be converted into marital property if the non-owning spouse's efforts significantly contribute to its growth or improvement.
4. Legal Variation:	Laws can vary from jurisdiction to jurisdiction, and some jurisdictions might have exceptions or nuances that can affect the treatment of inheritances.

Exhibit 8 summarizes the interaction of property regime type and timing of receiving an inheritance in determining whether the inheritance is likely to be considered as community versus separate property.

Exhibit 8: Determining Community Versus Separate Property

Inheritance Received …	Property Regime	
	Community	**Separate**
Before Marriage	*Separate property*	*Separate property*
During Marriage	*Community property, especially if commingling*	*Separate property, especially if no … commingling, increase in value, or transmutation*

CASE STUDY

Community Property and Forced Heirship

Philippe and Helena Berelli live in a community property regime with their two children. The community property regime entitles a surviving spouse to receive one-half of the community property after the first spouse's death. There are also forced heirship laws in their country that entitle a spouse to one-third of the total estate, and the children are entitled to split one-third of the total estate. During their marriage, Philippe received an inheritance that was retained as separate property and is currently worth EUR 200,000. The remainder of the estate is considered community property. Suppose Philippe passes away today with a total estate of EUR 800,000 and wishes to bequeath EUR 300,000 to his surviving mother.

1. What is the minimum amount that Helena should receive?

   Solution:

   Helena is entitled to the greater of her share under community property or forced heirship rules. Under community property, she is entitled to receive one-half of the community property, or 0.50(EUR 800,000 – EUR 200,000) = EUR 300,000. Under forced heirship rules, she is entitled to one-third of the total estate, or (1/3)(EUR 800,000) = EUR 266,667. Therefore, Helena is entitled to EUR 300,000.

2. What is the minimum amount that the children should receive under forced heirship rules?

   Solution:

   The children are collectively entitled to receive one-third of the total estate equal to EUR 266,667, or EUR 133,333 for each child.

3. Is Philippe able to bequeath EUR 300,000 to his mother?

   Solution:

   Philippe may freely dispose of the remainder of his estate, which is EUR 800,000 – EUR 300,000 – EUR 266,667 = EUR 233,333. Therefore, Philippe is unable to bequeath EUR 300,000 to his mother, but may bequeath the remainder of EUR 233,333 to her.

KNOWLEDGE CHECK

1. Is the following statement true or false?

   In a community property regime, the commingling of funds from an inheritance received during the marriage with funds for the family's monthly living expenses is a key factor in classifying the inheritance as community property.

   Solution:

   True. In a community property regime, the commingling of funds from an inheritance received during the marriage with funds for the family's monthly living expenses is indeed a key factor in classifying the inheritance as community property. This is because the inheritance funds were used to partly pay for the living expenses of all family members.

Estate Planning Components

Regardless of which regime governs an individual's assets, upon death, their **estate**—the assets owned and controlled by a person prior to death—will be disposed of. If they have full freedom of disposition in a common law jurisdiction, their wishes will be carried out as stated in their **testamentary documents**, which are documents, like a will or testamentary trust, that take effect upon the death of an individual. If a person has no plan in place—that is, they die intestate, meaning without a will—the law of their domicile will govern the distribution of their assets. This is true regardless of whether the domicile is in a civil law or common law jurisdiction.

An estate may consist of financial assets (e.g., bank accounts, stocks, bonds, or business interests), tangible personal assets (e.g., artwork, collectibles, or vehicles), immovable property (e.g., residential real estate or timber rights), and intellectual

property (e.g., royalties). An estate might exclude, however, assets that a settlor transferred to an irrevocable trust during their lifetime as a gift, which would be considered as a lifetime gratuitous transfer, as discussed in the previous section.

It is important to note that the elements of an estate can differ for legal and for tax purposes. For example, assets transferred to a trust may no longer be considered legally owned by the trust settlor. Instead, the trust may become the legal owner of the trust assets. However, the assets may be considered the settlor's assets for tax purposes, depending on applicable tax law and the trust structure.

Estate planning is the process of preparing for the disposition of one's estate (e.g., the transfer of property) during one's lifetime and upon death. It may involve making arrangements for other personal matters as well, such as funeral arrangements and end-of-life medical instructions should one become incapacitated. Importantly, estate planning can require the counsel of a variety of professionals including financial, legal, and taxation.

As noted previously, probate is the legal process to confirm the validity of a will. Most individuals may wish to avoid probate. Court and other fees may be sizable, and the process can cause a delay in the transfer of assets to intended beneficiaries. Additionally, an individual's assets are frozen during the period of the probate proceeding so that they cannot be managed; for example, a decedent's portfolio of assets cannot be traded during the pendency of a probate proceeding. A will can be challenged, and its contents are often a matter of public record, which may concern some wealthy families, as it can cause embarrassment or divulge sensitive financial information.

Moreover, many problems can arise in probate when multiple jurisdictions are involved. In some instances, probate can be avoided or its impact limited by holding assets in other forms of ownership, such as joint ownership, living trusts, or retirement plans. Through these structures, ownership of property is transferred to beneficiaries without the need for a will, and hence, the probate process can be avoided or substantially reduced.

Property in an estate can be held in a variety of ways including sole ownership, joint ownership, partnership, trust, or through life insurance. Assets held in sole ownership are typically considered part of a decedent's estate. The transfer of their ownership is dictated by the decedent's will (or, in the absence of their disposition under the decedent's will, applicable intestacy law) through the probate process.

In some jurisdictions, individuals can hold assets as **joint tenants with right of survivorship (JTWROS)**. In this case, two or more individuals own a property or an asset together, and upon the death of one of the owners, the deceased owner's interest in the property automatically passes to the surviving owner(s). Therefore, the transfer to the surviving joint owner or owners occurs outside of the probate process. Exhibit 9 shows some of the key features of JTWROS ownership.

Exhibit 9: Key Features of Joint Tenants with Right of Survivorship

Feature	Description
1. Automatic Transfer	Upon the death of one joint owner, their share of the property automatically transfers to the surviving joint owner(s) without the need for probate.
2. Equal Shares	All joint owners hold equal shares in the property.
3. Undivided Interest	Each owner has an undivided interest in the entire property, meaning they have rights to the entire property, not just a specific portion.
4. Termination	If one of the joint owners sells or transfers their interest, the JTWROS status will be terminated.

Feature	Description
5. Unilateral Action	Typically, one joint owner can sell or mortgage their interest without the permission of the other owner(s).
6. Avoids Probate	One of the primary benefits of JTWROS is that it allows the property to bypass the probate process upon the death of an owner.

The transfer of assets held in trust and the payout of death benefit proceeds under a life insurance policy depend on the terms of the trust and the provisions of the life insurance contract, respectively. Trusts, life insurance, and other similar planning techniques can therefore transfer assets outside the probate process and can be important estate planning tools.

Estate and Succession Planning

Making bequests or transferring assets in some other way upon one's death is known as a **testamentary gratuitous transfer**. As noted previously, the term "testamentary" refers to a transfer made after death. From a donee's perspective, the bequest is called an inheritance. Similar to lifetime gifts, the taxation of testamentary gratuitous transfers may depend upon the residency or domicile of the donor, the residency or domicile of the donee, the type of asset (moveable versus immovable), and the location of the asset (domestic or foreign).

Taxes on Estates or Inheritances

Taxes on wealth transfers may be applied to the donor (or their estate) or the donee. For example, in the case of testamentary gratuitous transfers, some jurisdictions impose an estate tax that is generally the liability of the donor (or more precisely, the estate of the donor). Other jurisdictions impose liability for wealth transfer taxes on the donee, typically referred to as an inheritance tax. As with gift taxes, these taxes may be applied at a flat rate or based on a progressive tax rate schedule, where the tax rate increases as the amount of wealth transferred increases. Often the tax is applied after the deduction of a statutory allowance. The tax rate may also depend on the relationship between donor and donee. Transfers to spouses, for instance, are typically tax exempt.

KNOWLEDGE CHECK: UK INHERITANCE TAX EXAMPLE

Paul Dasani, a widower, passed away last year. Dasani was a resident of London at the time of his death and had a total estate valued at GBP 700,000. His children are the beneficiaries of the estate. At the time, the United Kingdom imposed an inheritance tax threshold on estates valued above GBP 325,000. The tax is payable by the trustee of the estate out of estate assets at a rate of 40% on the amount over the tax threshold (i.e., statutory allowance) of GBP 325,000.

1. What is the amount of inheritance tax payable?

   Solution:

   The inheritance tax is computed as

Estate value	GBP 700,000
Less threshold	(GBP 325,000)
Excess	GBP 375,000

Rate on excess	40%
Inheritance tax	**GBP 150,000**

KNOWLEDGE CHECK: PROGRESSIVE ESTATE TAX EXAMPLE

Ya-wen Chao passed away in a jurisdiction with progressive estate tax rates as provided in the table below. After all applicable statutory allowances and exemptions, Chao had a taxable estate of EUR 2 million.

1. What is Chao's estate tax?

Taxable Estate (EUR)	Tax Rate (%)
Up to 600,000	2
600,001–1,500,000	4
1,500,001–3,000,000	7
3,000,001–4,500,000	11
4,500,001–6,000,000	15
6,000,001–10,000,000	20
10,000,001–15,000,000	26
15,000,001–40,000,000	33
40,000,001–100,000,000	41
Over 100,000,000	50

Solution:

The estate tax is computed as

Tax on first EUR 600,000 (2%) =	EUR 12,000
Tax on next EUR 900,000 (4%) =	EUR 36,000
Tax on remaining EUR 500,000 (7%) =	EUR 35,000
Total estate tax	**EUR 83,000**

Rather than impose an estate or inheritance tax on the amount of capital bequeathed at death, some countries treat bequests as **deemed dispositions**, that is, as if the property were sold. The deemed disposition triggers the realization of any previously unrecognized capital gains and liability for associated capital gains tax. The tax is therefore levied not on the principal value of the transfer, but only on the value of unrecognized gains, if any. Australia, Canada, and Colombia are examples of jurisdictions with deemed disposition regimes.

Structuring an Estate Plan

A well-structured estate plan will, at a minimum, accomplish three goals:

- fulfilling the wealth transfer wishes of the decedent;
- minimizing taxes payable at death; and
- minimizing conflict among family members, friends, and other interested parties at the death of the decedent.

There are many tools available to accomplish these goals. These include *lifetime estate tax exemptions* or *exclusions*, *marital exemptions* or *deductions*, and *charitable gratuitous transfers*, among others. We now describe each of these estate planning tools.

Lifetime Estate Tax Exemption or Exclusion

Many jurisdictions provide that a certain amount of assets may pass to any beneficiary free of estate taxes. In the United Kingdom, for example, there is normally no inheritance tax to pay if the value of the estate is below GBP 325,0000. In the United States, at the time of this writing, this amount is USD 12,920,000—note this amount is expected to change from time to time due to legislation. For individuals with estates in excess of these amounts, it may be desirable to create a trust for the benefit of the surviving spouse and descendants to protect the assets and all appreciation in value and income on them from estate taxation at the death of the surviving spouse. The trust, assuming it is drafted appropriately (i.e., is irrevocable), will also provide protection to the grantor against creditors and subsequent spouses.

In the event that a US decedent has not used their full generation-skipping tax exclusion amount during their lifetime, the remaining amount may be applied to this trust to protect the trust from future estate and generation-skipping taxes. In that case, this trust may be structured to be a dynasty trust to last for multiple generations.

The United States allows for portability of the exempt amount from the deceased spouse to the surviving spouse, allowing a surviving spouse to use a deceased spouse's unused exempt amount. Portability adds valuable flexibility to an estate plan. If an exemption is not portable, it is lost on the death of the first spouse, and a well-constructed estate plan would consider the possibility of using the exemption by transferring the exemption amount to a non-spouse beneficiary. In an appreciating market environment, however, it is generally advisable to use exemption sooner rather than later because it removes future appreciation out of the estate.

Marital Exemption or Deduction

If the decedent is married and desires to benefit the surviving spouse, the use of marital deductions or exemptions is available. For example, US citizens receive an unlimited marital deduction for bequests to their US spouses. Typically, the marital deduction or exemption merely postpones the payment of tax until the death of the second spouse to die.

A well-drafted estate plan that benefits a surviving spouse will divide the estate into at least two parts, including:

- a trust that protects the general exempt amount from estate taxation at the death of the surviving spouse; and
- another trust that utilizes the marital exemption.

CASE STUDY

Juarez Family: Marriage Deduction, Estate Tax Exemption, and Portability

Carlo and Julia Juarez, who are US citizens, live in the state of Florida in the United States. Carlo's assets are valued at USD 45 million. Julia has her own assets valued at USD 25 million. They have two adult children, Hector and Jaime. Assume that Carlo dies when the exemption for US estate taxes is USD 12,920,000. Florida does not impose a separate *state* estate tax. Carlo desired to leave all of his assets to Julia in a way that she could use them, while also benefitting the children, if needed. Assume that Carlo leaves all of his assets outright to Julia.

Estate Tax on Carlo's Assets:

There will be no estate tax because all of the USD 45 million of assets left by Carlo to Julia would qualify for the unlimited marital deduction.

Estate Tax on Julia's Assets:

Assume that

1. Julia dies three years later, when the estate tax exemption amount is assumed to be reduced (via legislation) to USD 12 million;
2. Carlo's USD 12,920,000 exemption amount is subject to portability; and
3. all assets appreciate at an annual rate of 6%.

Value of Julia's Estate = USD 83,371,120 (= USD 70,000,000 × $(1.06)^3$).

Value of Julia's Total Estate Tax Exemption

= USD 24,920,000 (Julia's own USD 12 million exemption plus Carlo's "ported" exemption of USD 12,920,000).

Estate Tax Due at Julia's Death at 40% Rate = USD 23,380,448

= [0.40 × (USD 83,371,120 – USD 24,920,000)]

Value of Julia's Estate After Taxes = Taxable Estate + Exemptions – Taxes = USD 58,451,120 + USD 24,920,000 – USD 23,380,448

= USD 59,990,672.

Now, let's consider a more efficient estate plan for Carlo and Julia Juarez. Carlo's estate plan could have created two separate trusts upon his death. One trust, the "exemption trust," in the amount of USD 12,920,000 would include Carlo's assets that are excluded from estate taxes, that is, for the benefit of Julia and, in Julia's discretion, for their adult children. At Julia's death, these assets and all growth and earnings on them that have not been spent will remain in further trust for her descendants and will not be subject to estate tax.

The other trust, the "marital deduction trust," would include the balance of Carlo's assets of USD 32,080,000 (= USD 45,000,000 – USD 12,920,000), that is, the assets that qualify for the unlimited US marital deduction. At Julia's death, whatever amount remains in the marital deduction trust will be subject to estate tax, along with the rest of Julia's estate, and then will pass into further trust for her descendants. Note that this plan does not rely on the portability of Carlo's estate tax exemption amount, which is now in a trust, as is his fully utilized unlimited marriage deduction amount.

CASE STUDY

Juarez Family: Estate Plan Utilizing Trusts

Assume that at Carlo's death, an exemption trust and a marital deduction trust are created, and his USD 45 million estate is divided as follows:

- Exemption Trust = USD 12,920,000
- Marital Deduction Trust = USD 32,080,000

For the next three years, all assets appreciate at an annual rate of 6%. So, at the time of Julia's death, her assets inherited from Carlo are

- Exemption Trust = USD 15,387,927 (= (USD 12,920,000 × $(1.06)^3$)
- Marital Deduction Trust = USD 38,207,793 (= (USD 32,080,000 × $(1.06)^3$).

Over the same period, Julia's USD 25 million of assets have appreciated at a similar rate:

- Julia's Assets at Her Death = USD 29,775,400 (= (USD 25,000,000 × $(1.06)^3$).

The sum of the exemption trust, marital deduction trust, and Julia's assets at the time of Julia's death is still USD 83,371,120, which is the same as the sum in the previous example. The benefit of moving the initial USD 12,920,000 exemption amount out of the estate (whether through a trust or some other means of bequest upon Carlo's death) is that it removes the future appreciation of this sum from Julia's taxable estate.

At the time of Julia's death, an additional USD 12 million of Julia's assets, representing the then-maximum allowable estate tax exemption, are put into the existing exemption trust. Consequently, the values of the exemption trust and Julia's taxable estate are

- Exemption Trust = USD 27,387,927 (= (USD 15,387,927 + USD 12,000,000)
- Julia's Taxable Estate = USD 17,775,400 (
  = USD 29,775,400 – USD 12,000,000).

No estate taxes are due on the exemption trust. However, Julia's estate must pay taxes on the marital deduction trust and on her taxable estate, as follows:

- Taxable Marital Deduction Trust and Estate = USD 55,983,193 (
  = USD 38,207,793 + USD 17,775,400)
- Taxes Due at 40% Rate = USD 22,393,277
- Value of Trusts and Estate After Taxes = Exemption Trust + Marital Deduction Trust + Julia's Estate – Estate Taxes = USD 27,387,927 + USD 38,207,793 + USD 17,775,400 – USD 22,393,277
  = USD 60,977,843

We conclude this case study with a comparison of the values of the estates and trusts, and the taxes paid, at the time of Julia's death under the Juarez family's two estate plans, the initial plan and the plan utilizing trusts, as shown in Exhibit 10.

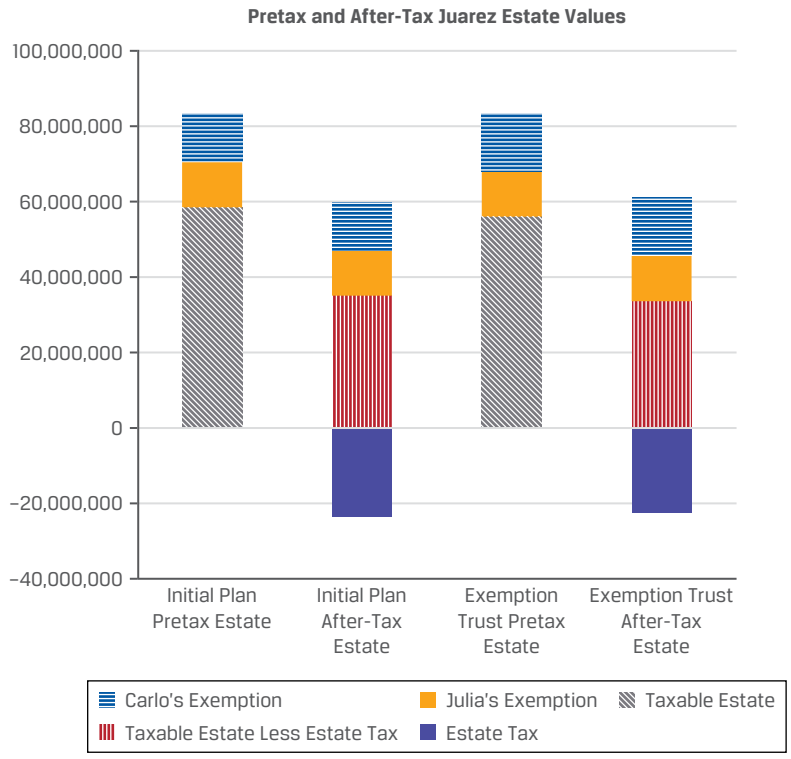
Exhibit 10: Comparison of Juarez Family's Initial and Trust-Based Estate Plans

	Pre-Tax Value	Taxes Paid	After-Tax Value
Initial Estate Plan: Marital Deduction and Estate Tax Exemptions	**USD 83,371,120**	**USD 23,380,448**	**USD 59,990,672**
Trust-Based Estate Plan:			
Exemption Trust	USD 27,387,927	USD 0	USD 27,387,927
Marital Trust and Julia's Estate	USD 55,983,193	USD 22,393,277	USD 33,589,916
Total	**USD 83,371,120**	**USD 22,393,277**	**USD 60,977,843**

The key conclusion is the after-tax value of the trust-based estate plan is USD 987,171 greater than the after-tax value under the initial estate plan. Importantly, in the initial plan, Julia's estate was taxed on the appreciation associated with the USD 12,920,000 exemption from Carlos. Removing it from Julia's estate at Carlo's death, as is done in the trust-based plan, also removes the USD 2,467,927 of appreciation, estate tax on which amounts to USD 987,171 (= 40% × USD 2,467,927).

Exhibit 11 presents a visual comparison of the pre-tax and after-tax values of the Juarez estate for both the initial and the trust-based estate plans. You will need to look closely, however, to see how the size of the taxable estate under the trust-based plan shrinks by the amount that Carlo's exemption increases.

Exhibit 11: Comparison of Juarez Family's Initial and Trust-Based Estate Plans



In conclusion, the exemption trust is a mechanism that allows the appreciation associated with the initial exemption to be removed from Julia's taxable estate. Importantly, however, this result does not require the use of a trust. Carlos and Julia could have achieved the same after-tax result with a foundation or by bequeathing the exemption amount to their children upon Carlo's death. This latter strategy has different control and asset protection implications, however, that are potentially undesirable. The children would have control, and their creditors would have easier claims to those assets.

Finally, it is worth noting that this trust-based strategy produces an inferior after-tax result if the assets in the exemption trust depreciate rather than appreciate. In this case, the exemption trust moves depreciation and its associated estate tax deduction out of the estate.

KNOWLEDGE CHECK

1. Which statement about the features of an irrevocable discretionary "exemption" trust created on the death of the first spouse is False?

   A. The second spouse's lifetime estate tax exclusion amount must be excluded from the exemption trust.

   B. All earnings and growth on the exemption trust will pass to the beneficiaries free of estate tax upon the death of the second spouse.

   C. The assets in the trust will be protected against claims of creditors and subsequent spouses.

   Solution:

   A is correct. It is false that in an irrevocable discretionary "exemption" trust the second spouse's lifetime estate tax exclusion amount must be excluded. Rather, it is typical that the second spouse's lifetime estate tax exclusion amount is added to the exemption trust.

   B is incorrect because in an irrevocable discretionary "exemption" trust, all earnings and growth on the exemption trust pass to the beneficiaries free of estate tax upon the death of the second spouse.

   C is incorrect because in an irrevocable discretionary "exemption" trust, assets in the trust are protected against claims of creditors and subsequent spouses.

Charitable Gratuitous Transfers

Most jurisdictions provide two forms of tax relief for wealth transfers to not-for-profit or charitable organizations.

1. Charitable donations are typically not subject to gift or estate tax; and
2. Income tax deductions for charitable donations are typically permitted.

Therefore, families with philanthropic aspirations can transfer wealth very tax efficiently.

Charitable organizations may also be exempt from paying tax on investment returns as well. Therefore, the early structuring of assets into a charitable organization allows investment returns to compound tax free, which has a significant impact on wealth accumulation, especially over long time horizons.

Recall from the previous reading the demonstration of the relationship between tax-free gifts and bequests. We can use a similar framework to explore the relative efficiency of charitable gifts compared to taxable bequests.

The relative after-tax future value after n years of a charitable gift compared to a taxable bequest is shown in Equation 1:

$$RV_{CharitableGift} = \frac{FV_{CharitableGift}}{FV_{Bequest}} = \frac{(1+r_g)^n + T_{oi}\left[1+r_e(1-t_{ie})\right]^n(1-T_e)}{\left[1+r_e(1-t_{ie})\right]^n(1-T_e)} \quad (1)$$

The variable definitions in Equation 1 are analogous to those in the case of the tax-free gifts and bequests but modified slightly for the new context of charitable gifts. They are

- r_g and r_e: pretax returns to the charitable gift recipient and the estate making the charitable gift, respectively;
- t_{ie}: the effective tax rates on investment returns on the estate making the charitable gift;
- T_{oi}: the tax rate on ordinary income and represents the current income tax benefit associated with a charitable transfer.
- T_e: the estate tax if the asset is bequeathed at death;
- n: the expected time until the donor's death, at which point the asset would transfer and be subject to estate tax if it had not been donated to charity.

The numerator is the future after-tax value of the tax-free charitable gift. The first term in the numerator has no deduction for either gift tax or taxes on investment returns. The second term of the numerator represents the additional value created in the estate associated with the income tax deduction. The denominator is the future after-tax value of a taxable transfer by bequest. The ratio is the relative value of making the tax-free charitable gift compared to the bequest.

The tax advantages of charitable giving allow the donor to either increase the charitable benefit associated with a given transfer of excess capital from the estate or to use less excess capital to achieve a given charitable benefit.

KNOWLEDGE CHECK: TAX EFFICIENCY OF CHARITABLE GIFTS

Nicholas Zachary is 50 years old and resides in an EU country. He is working with his wealth manager to develop an estate planning strategy that includes transferring wealth via charitable gifts. His EU country imposes an estate tax at rates of up to 60%, but qualifying charitable donations are not subject to inheritance tax. In addition, donations are eligible for income tax deductions at the same income tax rate of 48%, which also applies to investment income. Zachary is considering donating assets that are expected to earn a 6% real return annually over the next 20 years.

1. What is the relative after-tax value of Zachary's charitable donation as compared to a taxable bequest?

   Solution:

$$RV_{CharitableGift} = \frac{FV_{CharitableGift}}{FV_{Bequest}}$$

$$= \frac{(1.06)^{20} + 0.48\,[1 + 0.06\,(1 - 0.48)]^{20}(1 - 0.60)}{[1 + 0.06(1 - 0.48)]^{20}(1 - 0.60)}$$

$$= \frac{3.5621}{0.7395} = 4.82$$

   The relative value of the charitable gift is quite large, at almost five times, because the gift a) escapes estate tax, b) accrues investment returns free of taxes inside the tax-exempt organization (i.e., charity), and c) provides Zachary with an income tax deduction.

Defining a Wealth Transfer Strategy

A well-structured wealth transfer strategy incorporates a combination of lifetime gifting and transfers at death. It would seek to maximize the transfer of wealth, minimize taxes paid, and minimize the potential for conflict.

Combining Gifting and Testamentary Transfers

Typically, a wealthy client works with their private wealth advisor to determine the amount they intend to leave to their descendants and then gifts those amounts in trust for the benefit of those descendants during the client's lifetime. The gifting is structured using the tools described in the previous sections—including using marital deductions, lifetime estate tax exemptions, trusts and other structures, and valuation discounts—to minimize or eliminate the transfer taxes on their gifting. The client would retain sufficient assets to meet their lifetime needs. At the client's death, if the descendants' gifts are fully funded, then the balance of their assets can be left to a spouse, if any, to qualify for the marital deduction. At the spouse's subsequent death, or if there is no spouse, the remaining assets can be left to a charitable entity, again, avoiding transfer taxes.

CASE STUDY

Juarez Family—Lifetime Gifts and Charitable Giving

We return to the Juarez family, where Carlo and Julia have combined estates currently valued at USD 70 million. If their lifestyle needs were satisfied with total assets of USD 45 million, then they could make gifts of USD 25 million during their lifetimes in trust for their children while maintaining their accustomed standard of living. Assuming USD 25 million is the amount that Carlo and Julia would be comfortable leaving their children, then the balance of their estates at the death of Julia could be left to a charitable organization, thereby avoiding estate taxes.

1. How might Carlo and Julia transfer during their lifetimes USD 25 million to their children while reducing or eliminating any gift, estate, or other transfer taxes?

   Solution:

   A. *Utilize the maximum estate tax exemption amounts*. Carlo and Julia could each create an exemption trust or foundation for the benefit of the children or bequest the exemption amount to the children directly and fully utilize their estate tax exemption amounts. This technique would allow for a gift of USD 25,840,000 (= 2 × USD 12,920,000). Each year, additional gifts could be made into the exemption trusts, as the maximum allowable exemption amount typically increases. If the exemption does not increase, then Carlo and Julia can continue to make annual exclusion gifts (USD 17,000 in the United States at the time of this writing) to continue to increase the value of the trusts for the children.

   B. *Use valuation discounts*. If Carlo and Julia were to create a family limited partnership or family foundation with a portion of their assets, then they could annually transfer portions of the partnership to the children at discounted values to minimize or eliminate transfer taxes.

   C. *Use specialized trusts*. Carlo and Julia could create a specialized trust that transfers *appreciation* on their assets at no gift tax cost. One such trust

in the United States is a **grantor retained annuity trust (GRAT)**, which requires the person who makes the gifts into the trust to retain an annuity payment each year. The value of the annuity reduces the value of the gift for gift tax purposes, and if the annuity is large enough, the tax value of the gift can be reduced to zero. If the assets transferred to the GRAT appreciate at a rate higher than the rate assumed by the tax authorities, then the excess value can be transferred to the children free of gift tax.

2. Upon Julia's death in three years, how much is available in the children's exemption trusts, and how much can Julia's estate donate to charity to avoid taxation?

   Solution:

   Assume that Carlo and Julia can fully fund the children's trusts with USD 25 million. Therefore, the combined value of the exemption trusts at Julia's death (over a 3-year period) at 6% with no distributions would be USD 29,775,400 (= USD 25,000,000 × $(1.06)^3$)).

   The balance of Carlo's estate is available to Julia at his death, and at Julia's subsequent death three years later, everything remaining could be left to charity. If Julia's USD 45 million of assets grew, after taxes and after withdrawals for expenses, at a 2% annual rate over the three years, then its value would be USD 47,754,360 (= USD 45,000,000 × $(1.02)^3$). This amount represents the balance of Julia's estate that upon her death could be left to a charitable organization, thereby avoiding estate taxes.

Minimizing Conflict

Upon a person's death, there is a potential for conflict among the beneficiaries of their estate. An important goal of a well-structured wealth transfer plan is the minimization of such conflict. There are several strategies available to accomplish this, the most important of which is transparent and inclusive communication among all affected parties. Other valuable techniques include the use of **no contest clauses**, which attempt to disinherit a beneficiary who tries to challenge the estate plan. These provisions would be included in the estate plan, but they are not always recognized as valid, so local law must be consulted prior to relying on this type of provision.

Communication

Hughes, Massenzio, and Whitaker (2014) point out how difficult beginning a conversation about money can be among wealthy family members. As covered in an earlier reading on family dynamics, money can be a taboo topic and difficult to discuss. Moreover, if a family-owned business is a major asset of an estate, then issues of ownership and succession can significantly complicate such discussions. Nevertheless, it is crucial for the elder generation to discuss with the rising generation their overall estate plan and the considerations that went into developing that plan. As noted in the earlier reading, once the elder generation has passed away, the opportunity to understand why an estate plan was devised in a certain manner dies too. Having the rising generation's input in the plan empowers them and may avoid conflict and resentment.

Blended families

One source of conflict among the wealthy individual and their heirs may occur in blended families. This may be especially prevalent when there are children from previous marriages. While open communication is especially important under these circumstances, it is also important to be clear on whether the stepchildren and surviving stepparent should expect to receive a share of the deceased individual's estate. Additionally, if the surviving stepparent is the beneficiary of a trust and the children

(and stepchildren) are the remainder beneficiaries, conflict may arise throughout the trust's administration. For example, the remainder beneficiaries may question the distribution of assets from the trust to the stepparent because each distribution diminishes the amount ultimately available to them.

The investment strategy may also be impacted by the desires of each of the parties—the surviving stepparent may wish to have a conservative portfolio that generates an income-oriented return, while the next generation of heirs may desire a growth-oriented portfolio aimed at capital appreciation that would be to their benefit.

As noted in the discussion in the previous reading on family governance, to avoid these potential areas of conflict, planning should attempt to separate and address the interests of all family members.

QUESTION SET

1. Describe three key features of joint tenants with rights of survivorship.

   Solution:

   A key feature of joint tenants with rights of survivorship (JTWOS) is that upon the death of one joint owner, their share of the property automatically transfers to the surviving joint owner(s) without the need for probate.

   A second key feature of JTWROS is that all joint owners hold equal shares in the property, and each owner has an undivided interest, meaning they have rights to the entire property, not just a specific portion.

   A third key feature of JTWROS is that if one of the joint owners sells or transfers their interest, the JTWROS status will be terminated.

2. Identify three key goals of a well-structured estate plan.

   Solution:

   A well-structured estate plan will accomplish at least the following three key goals:

   - fulfilling the wealth transfer wishes of the decedent;
   - minimizing taxes payable at death; and
   - minimizing conflict among family members, friends, and other interested parties at the death of the decedent.

3. Describe three ways a high-net-worth individual might transfer wealth to their children during their lifetime while reducing or eliminating any gift, estate, or transfer taxes.

   Solution:

   A. *Utilize the maximum estate tax exemption amounts*. The wealthy individual and their spouse could create an exemption trust for the benefit of the children, or bequeath the exemption amount to the children directly, and fully utilize their maximum estate tax exemption amounts. They could each also continue to make the maximum annual exclusion gifts to increase the value of assets left or the children.

   B. *Use valuation discounts*. The wealthy individual could create a family limited partnership or other type of family structure with a portion of their assets, and then they could annually transfer minority interests in the struc-

ture to the children at discounted values to minimize or eliminate transfer taxes.

C. *Use specialized trusts*. The wealthy individual can create a specialized trust, such as a grantor retained annuity trust, that transfers appreciation on the trust assets with no gift tax. The GRAT creator retains an annual annuity, which reduces the value of the gift for gift tax purposes. If the annuity is large enough, the tax value of the gift can be reduced to zero. Any appreciation of the GRAT assets above the assumed actuarial rate can be transferred to the children gift tax free.

CHARITIES AND PHILANTHROPY

4

☐ discuss and recommend appropriate wealth management planning approaches for the preservation of wealth across multiple generations through charitable giving and philanthropy

Introduction

Philanthropy is an important goal for many wealthy individuals. For high-net-worth clients, in particular, philanthropy often receives the largest share of their wealth—even larger than the share received by their family members. Highlighting the importance of philanthropy to ultra-high-net-worth individuals is *The Giving Pledge*, a movement whereby wealthy individuals commit to give the majority of their wealth to charitable causes, either during their lifetime or at their death.

Started in 2010 by 40 of the wealthiest U.S. individuals, including Warren Buffett and Bill and Melinda Gates, as of 2023, 241 individuals from 29 countries around the world have signed the Pledge. In this section, we will explore the following:

- how clients initially discover their areas of interest for charitable giving;
- how to involve family members and others in the process; and
- how the process for gifting is implemented, including various structures available to accomplish one's charitable goals.

We will also explore international philanthropy and making cross-border gifts. We note that portions of the content in Sections 3.1 to 3.3 are derivative of "The Philanthropy Toolkit: An Introduction to Giving Effectively" (Stanford University, 2020).

Discovery of Areas of Interest for Charitable Giving

To assist a wealthy client in discovering their charitable mission, it is necessary to explore and understand the multitude of factors that influence the client's charitable giving. These include, among others, the client's motivations for giving and the client's values. To help the client crystallize their motivations and values, a private wealth advisor should learn about the client's current charitable endeavors, if any, including where the client currently gives their volunteering time, the amount of funds currently being donated and to which charities, and what other individuals are involved in the client's giving.

Additionally, a private wealth advisor should explore with the client what their ultimate goal is for their charitable giving. Some clients, for example, attempt to effectuate change, such as through **mission-related investing**, which aims to direct a significant portion of their assets into projects promoting positive societal or environmental change, while others seek to support efforts to retain the status quo. A client's appetite for risk should also be assessed, since some missions may involve starting a new venture to achieve a particular mission, which requires the client to have a certain level of risk tolerance. Other clients may not wish to take risk with their charitable gifts, preferring to support established charitable organizations with a proven track record. Similarly, a private wealth advisor should explore the issues that are important to the client and the philanthropic legacy they would like to leave.

Once a client's personal motivations, values, risk tolerance, and intended legacy are understood, then the advisor can help the client to develop a focus area (or areas) based on the issues that are most important to the client combined with the desired outcomes.

To assist with ascertaining a client's motivations for their charitable giving, here are several open-ended reflection questions that can be used to start the client on their "discovery" journey.

1. What motivates your giving?
2. What do you hope to achieve with your philanthropic gifts?
3. What are your immediate goals for philanthropy?
4. Do you have long-term philanthropy goals?
5. What would you like to change in the world?
6. What would you like to keep or sustain as is in the world?

Once the wealthy client has reflected on their motivations, they should consider their values as well, which can also be ascertained through open-ended questions. Values may include, for example, compassion, education, equity, empowerment, inclusion, justice, kindness, liberty, social responsibility, and well-being, among a myriad of others.

Mission (or focus) statements, which combine the wealthy client's motivations and values, can help to crystalize their thinking about the overall aims of their charitable giving as well as to concisely articulate specific issues of concern and how they may be addressed through the giving. The following example shows the "overarching" mission statement and the "key issue" focus statements for a wealthy client's charitable fund.

CASE STUDY

Mission Statements for a Charitable Fund—The Petit Charitable Foundation

Andre Petit built a consumer products conglomerate that operated throughout the European Union. Upon Andre's death, his estate sold the business for EUR 5 billion. Now, Andre's son, Claude, wants to endow a charitable foundation but is unclear about what the focus of the foundation should be. Upon reflection, and consultation with his private wealth advisor, Claude discovers that his values of compassion and social responsibility motivate him to make a positive change in society. The issues he most identifies with are addressing climate change and combatting childhood poverty.

Mission Statements for the Petit Charitable Foundation

First, Claude creates an overarching mission statement for the foundation, as follows:

"The Petit Charitable Foundation aims to fund projects that provide innovative solutions to societal problems."

Next, Claude creates focus statements for each of the two key issues he has identified:

1. "We aim to address climate change by funding innovative projects designed to replace production methodologies that are harmful to the planet."
2. "We aim to address childhood poverty by funding STEM educational initiatives for elementary school children in inner cities."

Involving Others, Including Family Members

Collaborating with Others

A trend over the past several decades has been for high-net-worth donors to seek to collaborate with others who share a mission and a focus. Working with other high-net-worth donors significantly increases the impact that a charitable grant can make on a given cause. Collaboration may take one of several different paths:

Knowledge Exchange. The most common form of collaboration among wealthy donors is seeking to learn with others. One example of this type of collaboration would be to join an *affinity group* and to share lessons learned. Some examples of such affinity groups include Grantmakers in the Arts, Biodiversity Funders Group, and Human Rights Funders Network.

Funding an Existing Foundation. Donors may decide to entrust their grant money to an existing, well-established entity. Often, this type of collaboration may be with a **community foundation**, which is a public charity that pools funds from donors that typically are intended to focus on a specific community. Alternatively, a donor may collaborate with a fully staffed private foundation. One example of this type of collaboration is Warren Buffett's unrestricted gift of USD 30 billion to the Bill and Melinda Gates Foundation made in 2006.

EXAMPLE 1

More Background on Foundations

Foundations are non-profit organizations that typically make grants to outside organizations and persons who carry out social, educational, and other charitable activities. Many foundations are located in the United States, but some large foundations are outside the United States, such as the Wellcome Trust in the United Kingdom. Foundations are more common in the United States because of favorable tax treatment. Outside the United States, charitable giving is typically undertaken by wealthy individuals through family offices. As Exhibit 12 shows, there are three main types of charitable foundations.

Exhibit 12: Main Types of Foundations*

1	Community Foundations	Charitable organizations that make social or educational grants for the benefit of a local community (e.g., the New York Community Trust). These foundations are usually funded by public donations.
2	Private Grant-Making Foundations	Charitable organizations established by individual donors or donor families to support specific types of charities. Most of the largest foundations in the United States fall into this category.
3	Private Operating Foundations	Organizations that exist to operate a not-for-profit business for charitable purposes. They are typically funded by individual donors or donor families.

* *There are also corporate foundations which are established by businesses and funded from profits.*

Community foundations are a type of public charity associated with community organizations such as hospitals, schools, and churches. They are typically funded by many relatively small donors, and they provide charitable support in the region or community where they are located.

Private grant-making foundations (also called private non-operating foundations) are by far the largest group (in number of foundations and in total assets). Private grant-making foundations support different types of charities and usually run a large grant-making operation in addition to an investment office. The main objective of most private grant-making foundations is to maintain purchasing power into perpetuity so that the organization can continue making grants. More recently, however, there has been a trend toward limited-life foundations as original donors seek to maintain control over foundation spending during their lives.

Private operating foundations are established to provide funding and support for related programs and activities (e.g., operating a museum) rather than giving grants to outside organizations or activities.

The focus of grants varies widely and includes issues such as health, education, environment, arts, and culture. Some foundations make large and targeted grants to very specific causes, while others make many smaller grants to a wide variety of causes. Exhibit 13 shows several large, well-known US foundations and their missions.

Exhibit 13: Select US Foundations

Foundation	Mission
Bill and Melinda Gates Foundation	Focus on global health and poverty. In United States, focus on education.
Robert Wood Johnson Foundation	Improve health and health care of all Americans.
William and Flora Hewlitt Foundation	Help people build measurably better lives by focusing on education, the environment, global development, performing arts, philanthropy, and population. Also supports disadvantaged communities in San Francisco.

Aggregate Funds with Others. Another form of collaboration is for a donor to pool their donation funds with another fund to make a larger impact. This could, for example, take the form of a donation to a specific private or public fund that works on an issue of interest to the donor.

Coordinate Funding Strategies. A fourth collaboration strategy is to identify other donors funding similar issues and coordinate the funding to support one another's work. This could assist in reducing overlap and allow for strategizing to address a problem.

Collaboration with the Community to be Served. Donors often identify a community to serve and may decide to work closely with or even cede decision making about the grant to the individuals working within that community. At a minimum, this type of collaboration may involve a listening tour, where donors meet with leaders and staff spearheading the chosen activity to learn and build a rapport. Some donors may wish to have a seat at the decision-making table or alternatively engage in an active partnership with the community leaders. One benefit of this approach is the strengthening of trust between the donor and the community.

KNOWLEDGE CHECK

1. Is the following statement true or false?

   A private grant-making foundation is typically established by individual donors or donor families to support specific types of charities.

   Solution:

   True. A private grant-making foundation is indeed typically established by individual donors or donor families to support specific types of charities.

2. Is the following statement true or false?

   A private operating foundation is typically established to make social or educational grants for the benefit of a local community.

   Solution:

   False. A private operating foundation is typically established to operate a not-for-profit business, such as a museum, for charitable purposes.

Involving Family

A donor may wish to involve their family in their philanthropy. There are many benefits to involving family and many ways in which family can become involved. The manner in which family is involved may also evolve over time, depending on the ages, abilities, and interests of various members.

One benefit of involving family in philanthropy, especially with younger generation family members, is to utilize the philanthropic platform to educate the family members about finance and investments. If, for example, the donor has created a foundation, the next generation family members may participate in meetings about the investments made by the foundation and learn the basics of investment management. Some donors consider using their foundations to enhance the cohesiveness of their family—foundation meetings are a means of facilitating family get-togethers and keeping the family together and aligned, even after the donor's death. Another benefit of involving family in philanthropy is that it promotes conversations about values and issues and may allow for family bonding over "doing good."

Involving family members may take different forms, none of which is mutually exclusive. In some cases, a donor may involve a family member as a co-philanthropist. As such, the family member may assist in setting priorities, may work together with the donor on setting up a mission statement or focus statements, may act as a sounding board, and generally be involved throughout the process.

Another manner in which a family member may be involved is solely as an advisor providing feedback on the donor's goals and plans. A family member may be assigned to the role of an implementer, researching how and where to give to implement the philanthropic goals. In some instances, the family member may be designated to lead the philanthropy currently or to be a successor to the donor.

Prior to involving family, it is important for the donor to reflect carefully on their family and to understand their family dynamics. It may be that one member of the family is more suited than another or has more interest than another in actively participating in charitable pursuits. Alternatively, family members may have diverse philanthropic goals—goals different than those of the donor and different than those of the other family members. In these cases, care must be taken to navigate the optimal method for involving family.

CASE STUDY

Family Involvement—The Petit Charitable Foundation

Consider Claude Petit from the previous case study. He has two adult children from his first marriage—Charlotte and Louis—and one teenage son from his second marriage—Pierre. Claude would like to involve his children in the Petit Foundation's grantmaking.

1. Describe how Claude may accomplish his goals.

   Solution:

   Teenage Son Pierre: Claude considers Pierre first. He thinks about the time commitment that he would expect from Pierre who is in boarding school and would not be available for regular meetings. However, he would like Pierre to understand what Claude's charitable goals are, and he also hopes to teach his son financial literacy by reviewing the foundation's investments with Pierre. Given the time constraints, he would not expect the teenager to be involved in the grantmaking activities of the foundation as a whole but would like Pierre to identify and research charitable organizations that are interesting to him for limited grantmaking. To that end, Claude may earmark a small amount of the foundation's assets for Pierre to use for grantmaking under Claude's supervision.

   Adult Children Charlotte and Louis: Regarding his adult children, Claude has added them to the foundation's board of directors, as they both have strong charitable goals as well as the time to devote to implementing those goals through the foundation. While Claude lives in Switzerland, Charlotte lives in France, and Louis lives in the United States. Charlotte and Louis would each like to concentrate their philanthropic efforts in their respective local communities. Because of family dynamics, Claude does not require Charlotte and Louis to agree with each other's grantmaking but rather allows each of them to donate one-third of the available grants freely to their own causes, with Claude retaining the right to donate the remaining one-third. After Claude's death, he has determined that the foundation should

split into three separate foundations so that Charlotte, Louis, and Pierre are each free to pursue their own charitable giving goals independently.

The Giving Process

There are many methods for structuring philanthropic gifting and many vehicles to utilize to effectuate gifts. We now explore some of those methods and vehicles.

Outright Gifting to Charity

The most commonly used charitable gifting method is making an outright gift of cash to the charity of one's choice. In many countries, including the United States, a gift of cash may entitle the donor to a charitable income tax deduction.

Another effective method of making a gift to charity in many countries, including the United States, is to gift appreciated securities to the charitable organization. The donor will in most cases receive a tax deduction based on the full fair market value of the securities without the need to sell the securities, realize the taxable gain, and then make the gift in cash. It is also worth noting that gifting appreciated securities can also serve a portfolio management function, for example, by allowing for tax-efficient rebalancing or reducing tracking error to a benchmark without recognizing gains.

Another strategy available in the United States is the ability for individuals to make a gift of up to USD 100,000 via a required minimum distribution, required due to tax laws, from a retirement plan. That amount would escape income tax that would otherwise be payable if the required distribution were made directly to the individual. This technique is known as a **qualified charitable distribution**.

Donor-Advised Fund

A **donor-advised fund (DAF)** is a philanthropic fund administered and managed by a not-for-profit institution, such as a community foundation, or by the charitable arm of a for-profit financial services organization. A DAF allows donors to make charitable contributions, immediately benefit from income tax deductions, and subsequently recommend grants to other qualified charities over time. The sponsoring organization retains legal control of the donated funds but typically adheres to the donor's recommendations for distributing the funds. Exhibit 14 shows a high-level view of how a DAF works.

Exhibit 14: How a DAF Works

Source: CFA Institute

Donors contribute cash, securities, or other assets to the DAF—in some jurisdictions there may be annual limits on contributions—and at that time, they can deduct the donation from their taxable income. The DAF sponsor then manages these assets, which can be invested and grow tax free, amplifying the potential charitable impact.

Donors advise on the timing and recipients of grants from the fund. Typical DAF grant recipients include **publicly supported charitable organizations**, which are charities that receive at least one-third of their support from the public, such as churches, hospitals, museums, and schools, among others.

A DAF is a useful vehicle for obtaining a tax deduction in a given year but allowing the donor to allocate the donation over a number of years to satisfy their specific charitable goals. Additionally, many DAFs allow for successor advisors upon the donor's death or disability, ensuring a family legacy. Moreover, a DAF is an efficient option when the size of the donation does not justify the expense and effort to support a private foundation, discussed next.

CASE STUDY

Using a DAF for Charitable Giving—Murray Klein

Murray Klein sells his US-based auto repair business for USD 60 million, which generates a USD 40 million capital gain in that year, and on which Klein is subject to pay taxes at the rate of 20%. Klein's income tax rate is also assumed to be 20%. In the same year, Klein sets up and funds a DAF with USD 5 million.

1. Explain the tax benefits and charitable giving benefits to Klein from using the DAF structure.

   Solution:

   On his income tax return for that year, Klein is entitled to claim a USD 5 million charitable income tax deduction for the gift to the DAF. This lowers his overall capital gains tax bill from USD 8 million to USD 7 million (= [(USD 40 million – USD 5 million) × 20%]). Klein can then advise the DAF sponsor to spread out the gifting to various charities—such as his university, the local museum, and the children's hospital—over many years using these funds, rather than his own funds, to satisfy these charitable goals. Notably, the future appreciation associated with the USD 5 million donation will accumulate outside of Klein's estate and escape estate tax. Klein can also name his two adult children to be successor donor advisors upon his death or disability.

Private Foundations

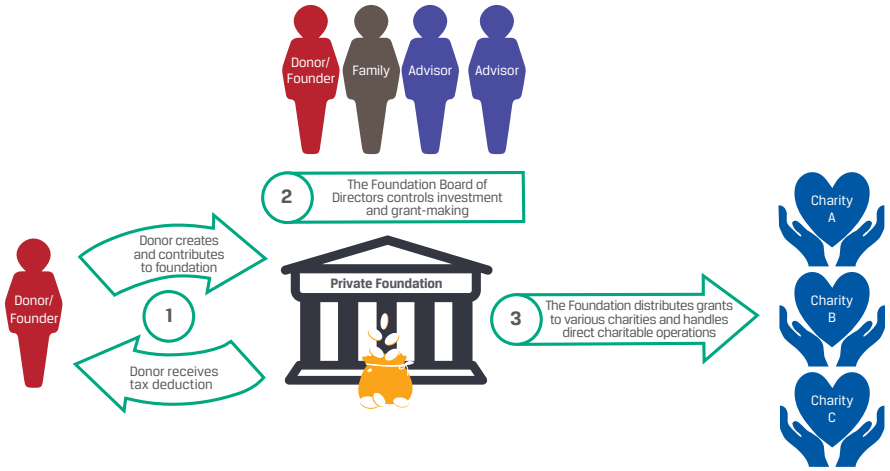
A **private grant-making foundation** is an independent legal entity created exclusively for charitable purposes, often reflecting a family's philanthropic vision. A donor can establish a foundation, fund it with an array of assets, and receive a tax deduction for these contributions. In the United States, a private foundation is funded primarily by one donor, and to maintain its tax-exempt status, it must distribute at least 5% of its assets annually towards charitable endeavors, including grants to other non-profits or direct charitable operations. Many high-net-worth individuals create a private foundation as the cornerstone of their philanthropy. Similar to a DAF, in the United States and other countries, the donor receives a charitable deduction for the gift *to the foundation* in the year that the gift is made. Subsequent grants *from the foundation* do not receive further charitable tax benefits.

Private foundations must have a board of directors, which typically consists of at least three people including family members or close associates, who oversee all operations, including asset management and grantmaking. The board maintains complete autonomy over the foundation's investment strategies and philanthropic activities, offering significant control and involvement opportunities for the founding members and their families. Large private foundations often have staffs to manage

the assets and to handle the administrative work involved. A private foundation may exist into perpetuity. However, some donors prefer to spend down all the foundation's assets within their lifetime or over a period of years, in which case it is a limited-life foundation.

Exhibit 15 shows how a typical private foundation is organized for charitable giving.

Exhibit 15: How a Private Foundation Works



Source: CFA Institute

A wealthy donor may have both a private foundation and a DAF. Because U.S. private foundations must pay out a minimum of 5% of their assets each year to charity, some large foundations may not be prepared to fulfill that distribution requirement, especially in the early years as they form their charitable focus. Since a DAF is a public charity, the private foundation may make part or all of its required distribution into a DAF for further distribution in subsequent years. Another benefit of having both a private foundation and a DAF is that the DAF may allow for anonymous giving, which may not be possible through the foundation.

Private foundations in the United States have public disclosure requirements that include filing with the tax authorities an annual form that describes the foundation's grants, investments, overall spending, and expenses.

Limited Liability Companies

For their charitable giving, some ultra-high-net-worth individuals prefer to utilize a limited liability company (LLC), which is a business structure that limits the owners' liability against lawsuits. Unlike with a private foundation, there are no annual distribution requirements nor public filing requirements. Importantly, the donor does not receive a charitable tax deduction upon funding the LLC but will receive such a tax deduction when the LLC makes a charitable contribution. The LLC is governed by its owners, who can actively manage the LLC and direct its contributions to charitable activities or make direct donations to other charities. One well-known LLC charitable structure is the Chan Zuckerberg Initiative, created by Meta founder Mark Zuckerberg and his wife Priscilla Chan in 2015.

Exhibit 16 provides a summary comparison of donor-advised funds, private foundations, and LLCs as vehicles for charitable giving along eight key dimensions.

Exhibit 16: Summary Comparison of Vehicles for Charitable Giving

Dimension	Donor-Advised Fund	Private Foundation	Limited Liability Company
1. Tax Benefits and Considerations	Immediate tax deduction; avoidance of capital gains tax; potential for tax-free growth.	Tax deductions for contributions; subject to excise tax on net investment income.	No direct tax benefits for the entity, but owners (donors) may see tax advantages depending on their contributions.
2. Distribution Requirements	No mandated annual distribution allows for strategic timing of grants.	Required to pay out at least 5% of asset value annually for charitable activities.	No charitable distribution requirements, offering maximum timing flexibility.
3. Grantmaking Capability and Control	Advisory privileges for donors; ultimate legal control with the sponsoring organization.	High degree of control over granting and direct program operations.	Owners (donors) have significant freedom to make charitable decisions.
4. Asset Growth and Investment Decisions	Donors may advise on investments within the sponsoring organization's options.	Complete discretion over investment decisions, within legal boundaries.	Full control over assets and investments.
5. Involvement and Control	Donor advisory role with succession options; not direct legal control.	Founding donors and families often play active roles in management and governance.	Direct management and operational control by members.
6. Flexibility of Purpose and Implementation	Broad capability to support various charities.	Can operate own programs or fund other entities; high operational flexibility.	Unmatched operational flexibility to pursue charitable and for-profit activities.
7. Legacy Aspects	Potential for multi-generational advisory roles for family members.	Enduring vehicle for a family's philanthropic legacy.	Can support a family's philanthropic activities but not inherently designed for legacy.
8. Privacy Aspects	Options for anonymity in giving.	Less privacy due to required public disclosure of activities and finances.	Offers significant privacy benefits compared to private foundations.
9. Administrative Costs	Low	High	Medium to High

KNOWLEDGE CHECK

1. Is the following statement true or false?

   In a donor advised fund (DAF), the donor retains legal control of the donated assets.

   Solution:

   False. In a DAF, the sponsoring organization retains legal control of the donated assets but typically adheres to the donor's recommendations on charities for distributing the funds.

2. Which best completes the following statement:

   US private foundations must _____.

   A. spend at least 5% of their assets each year on grants for charitable activities to maintain their preferred tax status.

   B. be administered by a not-for-profit organization such as a community foundation.

C. be terminated during the donor's lifetime.

Solution:

A is correct. Private foundations in the United States must pay out at least 5% of their assets each year on grants for charitable activities or pay a penalty.

B is incorrect because private foundations have their own board of directors, and sometimes staff, to administer them, so they are not administered by not-for-profit organizations.

C is incorrect because private foundations may last into perpetuity.

Planned Giving

Planned giving refers to the act of planning a gift to charity through one's estate plan. It can encompass the use of several types of charitable trusts as well as bequests under a will.

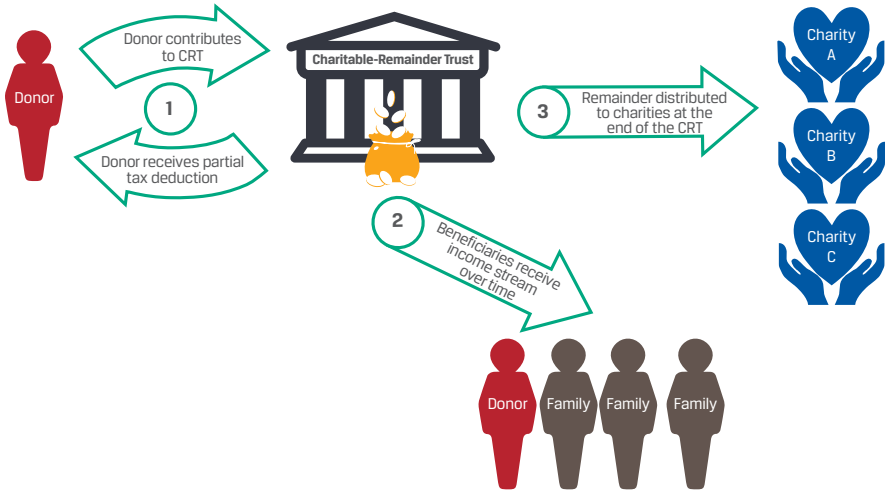
A **charitable remainder trust (CRT)** is a strategic financial vehicle used in philanthropy in the United States to provide an income stream to the donor or other beneficiaries, while also committing the remaining assets (i.e., the remainder) to a future gift to charity. It combines the donor's desire for income, tax efficiency, and charitable giving in one arrangement.

The CRT is an irrevocable, tax-exempt trust created to manage the donor's contributed assets for the benefit of both the non-charitable beneficiaries (i.e., donor, spouse, and others named) and the charitable beneficiaries. A trustee, who could be a financial institution, a knowledgeable individual, or the donors themselves, oversees the investment and distribution of trust assets.

Once the trust is funded, it pays out a steady stream of income from interest and dividends to the donor or named non-charitable beneficiaries. This payment, which must be at least 5% of the trust's assets, can be a fixed annual amount (as in a charitable remainder annuity trust, or CRAT) or a variable amount based on a fixed percentage of the trust's value, recalculated annually (as in a charitable remainder unitrust, or CRUT).

After the lifetime of the donor or non-charitable beneficiaries, or a specified term of up to 20 years, the remaining assets in the trust are donated to the chosen charity or charities. Exhibit 17 shows how a CRT works.

Exhibit 17: How a Charitable Remainder Trust Works



If the donor and/or the donor's spouse are the initial beneficiaries of the CRT, then (assuming both are US citizens) there is no gift tax upon its creation. Additionally, the donor receives a charitable income tax deduction in the year the trust is established for the remainder value of the trust that will ultimately pass to the charity or charities. To qualify for this deduction, the actuarial value of the CRT's remainder must equal at least 10% of the initial fair market value of the trust assets.

Moreover, the CRT's remainder may be paid to the donor's DAF or to the donor's private foundation, although there are special rules when the private foundation is the remainder charity.

Typically, wealthy donors create a CRT to obtain the charitable tax deduction, to continue to receive a lifetime benefit from the assets transferred, and to benefit the charity when the trust terminates. Using appreciated securities and other property to fund a CRT allows the donor to diversify the assets transferred to the trust with no immediate capital gains taxes; however, as distributions are made to the individual beneficiaries, they may be responsible for capital gains tax consequences.

Exhibit 18 provides a summary of the most relevant pros and cons of using a charitable remainder trust as a vehicle for charitable giving.

Exhibit 18: Pros and Cons of Charitable Remainder Trust

Pro	Con
Tax advantages: Donor receives a charitable income tax deduction in year the trust is established/funded. The trust can also sell appreciated assets without immediate capital gains tax liability.	*Irrevocability:* Once the trust is established, the decision is final, and the donor cannot reclaim the assets or change the trust terms.
Beneficiary income: The donor and/or other beneficiaries get a potentially lifelong income stream, which is especially useful for retirement planning.	*Maintenance costs:* There are ongoing administrative responsibilities and setup and maintenance costs, including tax preparation for the trust.

Pro	Con
Estate planning: Assets transferred to the trust are removed from the donor's estate for estate tax purposes, potentially leading to substantial tax savings.	*Inflation risk:* If the trust provides a fixed income (i.e., fixed annuity), the income stream could lose real value over time due to inflation.
Charitable impact: At trust termination, the remaining assets are transferred to the charity beneficiaries, fulfilling the donor's philanthropic objectives.	*Investment risk:* Poor investment performance can affect both the income stream and the final value available for charity.

CASE STUDY

Charitable Remainder Annuity Trust—Murray Klein

Assume Murray Klein from our previous case study sets up a charitable remainder trust (instead of a DAF) in the year before his business is sold. He transfers his business to this trust and names the local children's hospital as the "remainder" charity. Thereafter, Klein sells the business for USD 60 million, USD 40 million of which was a capital gain. Upon the business sale, the USD 40 million capital gain would not be subject to tax because capital gains in the United States are not taxed if realized in a qualified charitable remainder trust.

Assume further that Klein was 60 years old when the trust was created and that he retained a lifetime annuity of 5% of the value of the business. Klein would have received a charitable income tax deduction of USD 23.442 million upon funding the trust. This deduction is based on the size of the expected charitable remainder, which is determined by the difference between the fair market value of the trust and the present value of the annuity, with the latter determined using the tax authority's mortality-adjusted present value annuity factor.

Then, each year the trust would distribute an annuity to Klein of USD 3 million. Because of tax rules, the USD 3 million annuity would be subject to income tax, including taxes on a portion of the USD 40 million capital gain that was attributed to the sale of the business. At Klein's death, the remaining balance in the charitable remainder trust would be paid to the charity.

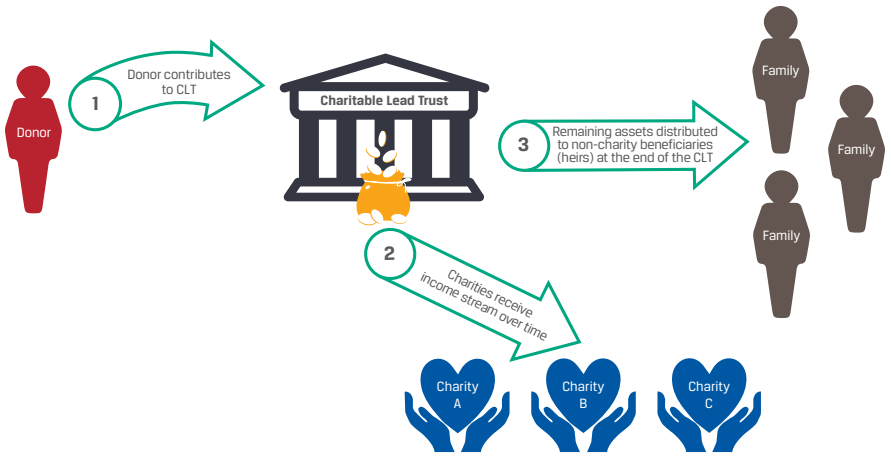
Moreover, assume that Klein had two children whom he wanted to benefit at his death. Klein could have created an irrevocable life insurance trust to purchase life insurance on his life that would replace all or a portion of the wealth that was left to the charity. Additionally, if the charity receiving the remainder from the trust was a private foundation or a DAF, then Klein's children could be designated to control or advise, respectively, the charity at death, thereby providing further benefit to them.

A **charitable lead trust (CLT)** represents another sophisticated charitable-giving vehicle that reverses the sequence of benefits provided by a CRT. A CLT is focused on offering immediate financial support to charitable causes (the current beneficiary) while preserving the remainder of the trust's assets for the donor's heirs or other non-charitable beneficiaries (the remainder beneficiaries).

With a CLT, the donor contributes assets to an irrevocable trust. This trust makes predetermined payments to one or more charities for a set term, which can be for a specific number of years or the lifetime of one or more individuals. The chosen charity receives these payments, for which there are no minimum distribution requirements, and which can be either a fixed sum (CLAT) or a variable sum based on a percentage of the trust assets (CLUT). After the trust term concludes, the remaining assets are distributed to the non-charitable beneficiaries, usually the donor's heirs.

Exhibit 19 shows how a CLT, specifically a **non-grantor charitable lead trust**, where the donor is not a remainder beneficiary, works for charitable giving.

Exhibit 19: How a Non-Grantor Charitable Lead Trust Works



The tax benefits of creating a non-grantor CLT, upon the donor's death via a will, are two-fold:

1. Estate tax is due only on the actuarial value of the remainder that will ultimately pass to the individual beneficiaries (the donor's heirs).
2. Charitable income tax deductions are available to the CLT based on the distributions it makes each year to the charitable beneficiaries.

One strategy often used is a **zeroed-out CLAT**, which is a CLAT with an annuity so large that the actuarial remainder value is zero. If the property contributed to the CLAT has appreciated significantly, then the remainder can have significant market value despite its actuarial calculation of zero, and that appreciation will pass tax free to the remainder individual beneficiaries.

Exhibit 20 provides a summary of the pros and cons of using a CLAT as a vehicle for charitable giving.

Exhibit 20: Pros and Cons of Non-Grantor Charitable Lead Trust

Pro	Con
Early, predictable charitable benefit: The charity receives a predictable income stream for the trust term, aiding in its financial and operational stability.	*Complexity and expense*: Complex and expensive to establish and maintain, requiring expert legal and financial counsel.
Tax benefit for trust: The trust receives a charitable income tax deduction for payments made to charity each year.	*No donor income tax benefit:* Only certain types of CLT's (*grantor CLT*) provide the donor an income tax deduction for assets placed in the trust.

Pro	Con
Estate planning tax benefits: Trust assets are passed to heirs potentially with reduced gift and estate taxes, especially if assets appreciate over the trust term.	*Long-term commitment:* The donor's assets are tied up for the term of the trust, which can affect the donor's liquidity and financial flexibility.
Generational wealth transfer: An effective tool for transferring wealth to the next generation while achieving charitable goals and reducing the taxable estate.	*Market risk for heirs:* If the trust's investments underperform, the amount eventually passed to beneficiary heirs may be less than expected.

CASE STUDY

Charitable Lead Annuity Trust (CLAT)

Dimitri Clemente, a "tech" entrepreneur, is married to AnnaMaria, and they live in a country that is a signatory to the Hague Convention. Dimitri is a dual US and Spanish citizen, but AnnaMaria is a Spanish national who is not a US citizen. Dimitri and AnnaMaria, who have three young children, have signed The Giving Pledge.

Dimitri started his "cloud"-based software company in the United States five years ago, is the sole owner, and wants to take the company public. He would like to transfer assets to AnnaMaria and the children in a tax-advantaged manner, and there is also a charity that he would like to benefit.

The current valuation of Dimitri's company is USD 25 million, but he estimates that in three years when he is ready to take it public, the value will be USD 75 million. Dimitri also has other assets worth USD 30 million. Based on his private wealth advisor's recommendation, Dimitri decides to contribute the stock in his company to a three-year zeroed-out CLAT.

The CLAT will pay out to the charity for each of three years the amount of USD 9.249 million, for a total of USD 27.747 million (=3 × USD 9.249 million). The USD 9.249 million annual payment is based on the current fair market value of Dimitri's company and the tax authority's actuarially determined term certain annuity factor. At the end of the CLAT's three-year life, if the company's public market valuation is USD 75 million, then USD 47.253 million (USD 75 million – USD 27.747 million) will be left into a trust for AnnaMaria and the children, free of any transfer tax.

KNOWLEDGE CHECK

1. Which one of the following statements regarding charitable remainder trusts (CRT) is true:

   A. The donor can claim a charitable income tax deduction in the year the CRT is established.

   B. The CRT can provide the charity with an immediate steady stream of financial support throughout the trust term.

   C. After the CRT is established, the donor can reclaim the assets or change the terms of the trust.

   Solution:

   A is correct. The donor can claim a charitable income tax deduction in the year the CRT is established.

B is incorrect because the CRT *cannot* provide the charity with an immediate steady stream of financial support throughout the trust term. Rather, the charity will receive only the remainder assets and only at the end of the trust term.

C is incorrect because after the CRT (which is irrevocable) is established, the donor *cannot* reclaim the assets or change the terms of the trust.

2. Is the following statement true or false?

A charitable lead trust (CLT) is a charitable giving vehicle that reverses the sequence of benefits provided by a charitable remainder trust. As such, the CLT is focused on offering immediate payments to charitable causes while preserving the trusts' remaining assets for the donor's heirs or other remainder beneficiaries.

Solution:

True. A charitable lead trust is indeed a vehicle that reverses the sequence of benefits provided by a CRT, whereby the CLT focuses on providing immediate payments to charitable causes while preserving the remaining assets for the remainder beneficiaries.

Cross-Border Philanthropy

General Principles

When advising high-net-worth individuals about cross-border philanthropy, there are a range of additional concerns beyond the ones discussed earlier that must be explored when the client is interested in philanthropic endeavors outside of their home country. It is important to question what their assumptions and understanding are of the geographic area and issues the client wishes to benefit. Winer and Brill (2018) suggest that with cross-border philanthropy—especially in response to an emergency or crisis—a deeper knowledge about the issues and carefully selecting a partner will result in greater success with the client's giving. They suggest that higher scrutiny must be applied in the following areas:

Risk Mitigation. One significant risk in cross-border philanthropy is the risk of donating to an organization that is laundering funds or otherwise directing monies to illegitimate activities. Especially important for US donors is awareness of the restrictions imposed by the **PATRIOT Act**, a law enacted in 2001, which among other goals, was aimed at preventing funding of terrorist activities.

Accountability. The question of accountability is especially complicated with respect to international giving. This is due to a myriad of entities who may be ultimately responsible for the good stewardship of the donation. Having clarity regarding which entity is responsible—be it a local non-profit, an intermediary organization, or a domestically based organization—is a prerequisite to receiving the accountability the donor expects. In emergency funding, another type of accountability exists—that is, whether the organization can expect further funding once the crisis passes. Donors should be clear as to what the donee organization can expect.

Cross-Cultural Competency. It is often difficult to work effectively across cultures. Winer and Brill (2018) state that working effectively across different cultures requires explicit policies and practices "that follow an intentional set of principles and ethics to guide the work." Some examples include donating shoes or clothing that puts local shoemakers and tailors out of work, or funding for community water projects but neglecting to fund training for plumbers to service the projects.

The dynamic international environment, including fast-changing political issues, makes it difficult for donors to obtain reliable and up-to-date information. Therefore, it is often best for donors to make cross-border gifts through intermediaries, like well-known international aid organizations, who can more adeptly navigate the international landscape.

US Cross-Border Grantmaking

There is a complex set of US and foreign regulations governing cross-border grantmaking by foundations. As a result, compliance protocols need to be established. Hart (2018) describes several key areas of grantmaker responsibility surrounding these protocols.

One such area revolves around the rules of the US Internal Revenue Code for qualifying the grants under the charitable contribution rules. There are two key rules that define this qualification. The first is **equivalency determination**, that is, the determination that the donee non-US charity is the equivalent of a US public charity. This determination is similar to that made by the tax authorities regarding tax exempt status for a US charity.

The second key rule is **expenditure responsibility**, which is the determination that a foreign charity will use the grant for appropriate purposes. This determination requires 1) a pre-grant inquiry to assure that the donee will use the donation for appropriate purposes, 2) a written grant agreement that includes specific uses for the funds, 3) a reporting mechanism from the donee on the use of the funds, and 4) a filing by the non-US charity to the US tax authorities.

As mentioned above, the US PATRIOT Act and other international enforcement rules aim to fight the proliferation of money laundering and terrorist activities, so they must strictly comply with any cross-border grantmaking by US donors.

Charitable Giving in Other (Non-US) Common Law and Civil Law Jurisdictions

Charitable giving in Europe and Asia, as with the United States, is influenced by the region's legal framework, cultural norms, and tax policies. While each country has its own specific vehicles and mechanisms, they can be broadly categorized by the legal traditions that inform them: common law and civil law jurisdictions.

Charitable Giving Vehicles in Other Common Law Jurisdictions

Common law systems, such as in the United Kingdom, Hong Kong SAR, and Singapore, typically have charitable giving mechanisms that are often similar to those found in the United States, as they share a common historical legal heritage.

Charitable trusts, in which a donor transfers assets to a trustee, who then manages the assets according to the trust's charitable objectives, and where income and capital gains from the trust assets are used for charitable giving, are typically recognized in most common law countries. Such charitable trusts generally receive tax exemptions on income and capital gains, while donations to charitable trusts may also be deductible for the donor.

Moreover, foundations—independent entities typically endowed by a single donor or family to support charitable activities—are permitted in most common law countries. As with US private foundations, the donor endows the foundation with assets, which are managed to generate income for charitable grants or activities, and the foundation's board oversees governance and makes strategic decisions. Such foundations often benefit from tax exemptions on income and may provide donors with tax deductions for their contributions.

Charitable Giving Vehicles in Civil Law Jurisdictions

As noted earlier, civil law jurisdictions do not generally recognize trusts, although some civil law countries have enacted trust legislation. However, 14 countries have adopted the Hague Trust Convention, under which each party to the Convention recognizes the validity of trusts regardless of whether that country has its own trust law. Civil law systems have somewhat different approaches to charitable giving, with a stronger emphasis on direct tax subsidies and less on trust law.

The following example provides an overview of several different types of vehicles for charitable giving that are typically used by wealthy individuals from a range of civil law countries.

EXAMPLE 2

Vehicles Used for Charitable Giving in Civil Law Countries

Stiftung (Germany, Switzerland, Austria, Liechtenstein)

A **Stiftung** is a foundation established to manage a set of assets for a specific charitable, scientific, cultural, or educational purpose.

Mechanism: A donor, often called a founder, endows the Stiftung with assets. These assets are then managed by the foundation to generate income that supports its charitable grantmaking activities. The governance is overseen by a board, which ensures compliance with the foundation's purpose as defined in its charter.

Tax Benefits: Generally, Stiftung are tax-exempt organizations. The founder may receive tax benefits for the initial endowment and further contributions, subject to certain limitations.

Exhibit 21 presents the pros and cons of Stiftung.

Exhibit 21: Pros and Cons of Stiftung

Pro	Con
Enduring impact: Stiftung are designed for longevity, providing an ongoing philanthropic legacy.	*Regulatory scrutiny*: Stiftung are closely monitored by authorities to ensure they adhere to their charitable purposes.
Tax efficiency: Stiftung offer a structured way to manage large endowments with tax benefits.	*Initial capital*: Stiftung often require significant assets to be viable and cost-effective.
Autonomy: Stiftung operate independently from their founders once established.	*Inflexibility*: Altering the purpose or structure of a Stiftung after it has been established can be difficult.

Fondation (France, Belgium, Luxembourg)

A **Fondation** is an independent legal entity dedicated to philanthropic activities without shareholders or owners.

Mechanism: It is created by one or more founders who provide it with an endowment. A board or council manages the Fondation, and it operates to fulfill its mission, which can include charitable grantmaking or direct operations.

Tax Benefits: Founders can benefit from income tax deductions for contributions. The Fondation itself typically enjoys tax exemption status for its operations and assets related to its mission.

Exhibit 22 presents the pros and cons of Fondation.

Exhibit 22: Pros and Cons of Fondation

Pro	Con
Tax advantages: Fondation's significant tax deductions incentivize charitable giving.	*Cost and complexity*: Establishing and managing a Fondation can be expensive and administratively intense.
Public recognition: Creating a Fondation can enhance a donor's public and social standing.	*Lack of flexibility:* It may be difficult to change the Fondation's direction once established.
Control over use of funds: Founders can set specific objectives and have some influence over the Fondation's endowed funds.	*Oversight*: Fondations are subject to ongoing public and governmental scrutiny.

Fideicomiso (Latin American Countries)

While traditionally associated with Latin American countries, a **fideicomiso**, or trust-like entity, serves to hold and manage assets for specific purposes, including charitable ones, within certain civil law jurisdictions.

Mechanism: A settlor transfers assets to a fiduciary who is responsible for managing these assets for the benefit of a third-party beneficiary, according to the terms of the fideicomiso agreement.

Tax Benefits: Tax benefits vary by country, but generally, assets placed in a fideicomiso can be removed from the settlor's taxable estate, and the income generated from the assets can be tax exempt.

Exhibit 23 presents the pros and cons of fideicomiso.

Exhibit 23: Pros and Cons of Fideicomiso

Pro	Con
Estate planning: Fideicomiso can be an effective tool for estate planning and wealth transfer.	*Less common*: Fideicomiso are not as widely recognized or used for charitable purposes in civil law countries outside of Latin America.
Specific purpose: Fideicomiso are ideal for targeted philanthropic activities with a defined objective.	*Legal complexity*: Fideicomiso may not have a well-established legal framework in all jurisdictions.

Charitable Incorporated Organizations (Japan)

In Japan, **charitable incorporated organizations** are legally incorporated entities established for non-profit purposes such as social welfare, education, and environmental protection. They exist under Japan's Public Interest Incorporated Foundation and Public Interest Incorporated Association Law.

Mechanism: They are created with approval from the government and are managed by a board of directors or trustees. They can carry out a wide range of charitable activities directly or by distributing grants.

Tax Benefits: These entities are exempt from various taxes, and donations to them are often tax deductible for the donor.

Exhibit 24 presents the pros and cons of charitable incorporated organizations.

Exhibit 24: Pros and Cons of Charitable Incorporated Organizations

Pro	Con
Legitimacy and trust: Government oversight ensures CIOs have legitimacy, which can increase public trust.	*Difficult to maintain*: The process of obtaining and maintaining a CIO's legal status is rigorous and bureaucratic.
Tax efficiency: CIOs' tax exemptions for the entity and deductions for donors enhance financial efficiency.	*Limited flexibility*: The CIO's activities are limited to those specifically allowed by its charter and relevant laws.

In both common and civil law jurisdictions in Europe and Asia, wealthy individuals have a variety of vehicles to channel their philanthropy. Though the specific vehicles and their tax efficiency can vary significantly, they generally reflect a balance between promoting philanthropy and ensuring accountability. Here are a few common themes:

- *Regulatory Environment*: More regulated environments tend to offer structured but less flexible vehicles, with rigorous reporting and transparency requirements.
- *Tax Considerations*: Tax incentives are a key driver of philanthropy, though the extent and nature of these incentives vary.
- *Flexibility vs. Control*: Donors often have to navigate between the desire for control over their philanthropic endeavors and the flexibility offered by different vehicles.
- *Cultural Factors*: Cultural norms heavily influence the preferred methods of giving in each region, with some cultures favoring public and others private philanthropy.

Given such complications, wealthy individuals interested in using these vehicles should work with their private wealth advisors to navigate the complexities and to optimize their charitable impact while obtaining the maximum tax advantages.

KNOWLEDGE CHECK

1. Which one of the following statements is true?

   A. Fondations are commonly used for charitable giving in Japan.

   B. Fideicomiso are commonly used for charitable giving in Latin American countries.

   C. Stiftung are commonly used for charitable giving in France.

Solution:

B is correct. Fideicomiso are commonly used for charitable giving in Latin American countries.

A is incorrect because Fondations are commonly used for charitable giving in France, Belgium, and Luxembourg.

C is incorrect because Stiftung are commonly used for charitable giving in Germany, Switzerland, Austria, and Liechtenstein.

QUESTION SET

1. Identify three benefits of a donor-advised fund (DAF).

   Solution:

   a. A DAF provides the donor with an immediate income tax deduction.

   b. A DAF allows the donor to advise the DAF sponsor on which charities should receive grants.

   c. A DAF enables the donor to allocate the donation over time (years) to satisfy specific charitable goals and typically allows for successor advisors upon the donor's death or disability, ensuring a family legacy.

2. Which of the following structures is most suitable for a wealthy individual seeking a high degree of control over grantmaking, asset and investment decisions, and overall management?

   A. Donor-advised fund (DAF)

   B. Private foundation (PF)

   C. Exemption trust (ET)

   Solution:

   B is correct. A private foundation typically provides its founders with a high degree of control over grantmaking and investment decisions as well as active involvement in managing the PF.

   A is incorrect because, while a donor-advised fund has advisory privileges for donors, ultimate legal control is held by the DAF sponsoring organization.

   C is incorrect because an exemption trust is not a grantmaking trust. Rather, it is a trust set up to contain a decedent's assets that are excluded from estate taxes.

3. Describe the key distinction in order of distributions between a charitable remainder trust (CRT) and a charitable lead trust (CLT).

   Solution:

   In a CRT, distributions are first made to the non-charitable beneficiaries (typically the donor and/or family) as either a fixed annuity or unitrust. Then, once the CRT terminates, the value of the remaining assets (i.e., the remainder) is paid to the charitable beneficiary organization(s).

   For a CLT, the order of distributions is the reverse of the CRT's distributions. In a CLT, distributions are first made to the charitable beneficiary organization(s) (i.e., the lead charity) as either a fixed annuity or unitrust. Then, once the CLT terminates, the value of the remaining assets is paid to the non-charitable beneficiaries (typically the donor's heirs).

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PRACTICE PROBLEMS

The following information relates to questions 1-4

John and Lisa McDaniel have property valued at USD 65 million, USD 40 million of which is held in liquid securities expected to earn 7.0% per year, and the remainder is in illiquid assets, primarily real estate, including USD 10 million in a timberland limited partnership and USD 10 million in hedge funds and venture capital. John is 65 and Lisa is 63. They have a 40-year-old son Chris and a 38-year-old daughter Samantha. Chris has two children, aged 15 and 13. Samantha has one child aged 10. The McDaniels are seeking advice on how to transfer as much of their wealth to their heirs as possible in a tax-efficient manner. John's remaining life expectancy is 17 years, and Lisa's is 22 years.

The estate tax is 40%, and each spouse can use an exclusion that currently amounts to USD 13.6 million to transfer assets to non-spousal heirs. In addition, each spouse can gift up to USD 18,000 per year to anyone without incurring any tax. They consider the potential impact on their estate if they gift the maximum amount in liquid assets to each child and grandchild for John's remaining life expectancy. They assume that the securities will earn the same return after the gifts, that inflation will be 2.5% annually, and that because much of the return will consist of unrealized capital gains, the effective tax rate on the returns will be 10%. Their advisor observes that the generation-skipping gifts to the grandchildren are relatively more valuable than the gifts to Chris and Samantha.

Because the grandchildren are minors, the McDaniels are concerned about gifting them money directly. In particular, they would like to ensure that the money be used for expenses such as university or a home purchase and is not potentially wasted on frivolous purchases. The McDaniels would also like to protect gifted assets from their creditors. Their advisor suggests gifting the assets into a trust. She also suggests putting the less liquid assets into a family limited partnership, which is expected to quality for a combined lack of liquidity and lack of control discount of 25%, and gifting shares of the partnership rather than liquid securities.

1. In real, after-tax terms, by how much will maximizing annual gifts to their heirs reduce the McDaniels's estate by the time of John's death?

   A. USD 2.2 million

   B. USD 4.4 million

   C. USD 9.3 million

2. Determine the relative value of gifts made by John and Lisa directly to their grandchildren via generation skipping compared to gifts to Chris and Samantha, which would then be gifted by them to their children.

3. For the McDaniels's grandchildren, the *most* appropriate type of trust would be:

   A. revokable and fixed.

   B. irrevocable and fixed.

C. irrevocable and discretionary.

4. Describe two benefits of using a family limited partnership for the McDaniels.

The following information relates to questions 5-8

Vincente and Lauren Claret are in their early sixties and live in a European country with forced heirship rules and a separate property regime. The forced heirship rules stipulate that a surviving spouse is entitled to at least 50% of community property or 33% of the total estate, whichever is larger. Additionally, children are collectively entitled to at least 33% of the total estate. No claw back provisions apply.

Vincente started a software company 30 years ago that is now valued at EUR 100 million. Lauren is from a wealthy family and inherited EUR 20 million worth of rental properties that Vincente has helped her manage, resulting in a significant increase in value.

The Clarets have two children together, Marko and Elise. Both are involved in Vincente's business as middle managers. Vincente also has a son, Guillaume, from an earlier marriage. Although he cares for Guillaume and wants him to receive a sizable inheritance, Vincente does not want him to receive any part of the business because, unlike his step-siblings, Guillaume has not been involved in the family business. However, Vincente is also concerned that the differential treatment may cause resentment.

The Clarets are also passionate about wildlife conservation and protecting the environment. They want to establish a trust that would immediately benefit several wildlife conservation and environmental protection charities and that would distribute the remaining assets to the three children upon the trust's termination.

5. In the event of a divorce, are Lauren's inherited properties likely to be treated as separate property?

A. Yes

B. No, because of transmutation

C. No, because of commingling of funds

6. Describe *three* strategies that may help Vincente avoid leaving any part of his business to Guillaume.

7. Discuss *two* significant elements of a successful wealth transfer strategy for the Clarets.

8. Which of the following trusts is most likely to meet the Claret's stated goals for both the charities and the children?

A. Charitable remainder trust

B. Exemption trust

C. Non-grantor charitable lead trust

The following information relates to questions 9-12

Pedro and Grace Sousa, US citizens in their mid-fifties, have amassed a large fortune from their consumer products marketing business. They have signed the Giving Pledge, promising to give the majority of their wealth to charitable causes. Having grown up poor, they have a particular desire to use their wealth to lift others out of poverty. For their philanthropic endeavors, the Sousas would like to be actively involved in both the investment of assets and their ultimate distribution, maintaining a high degree of control if possible. They would also like to control the timing of distributions, such that they can match them to their own tax and liquidity needs. The Sousas have a strong desire for privacy.

The Sousas wish to ensure that they and their three adult children have sufficient income during their lives. They want to ensure that there are sufficient funds for that objective and a high probability that there will be additional funds for charity when the last beneficiary passes away even if there is poor investment performance.

The Sousas decide that their first major philanthropic act will be to fund modern farming equipment for impoverished communities in a sub-Saharan African country. The gift will be made through a charity based in that country. As part of the gift, the Sousas require that some local residents be trained on the operation, maintenance, and repair of the equipment.

9. Justify whether a donor advised fund (DAF), a private foundation (PF), or a limited liability company (LLC) would be *most* appropriate for meeting the Sousa's requirements and philanthropic objectives. Support your answer by giving *two* reasons why *each* of the other choices is less suitable.

10. The *most* appropriate type of trust for the Sousa's income objective is a

A. charitable (non-grantor) lead annuity trust.

B. charitable remainder unitrust.

C. dynasty trust.

11. Describe the requirement that the Sousa's attach to their gift of farming equipment whereby local residents must be trained to operate, maintain, and repair the equipment.

12. Which of the following conditions must be met for the Sousa's gift to be qualified by the taxing authorities as a tax-deductible charitable grant?

A. Equivalency determination

B. Expenditure responsibility

C. Both equivalency determination and expenditure responsibility

SOLUTIONS

1. B is correct. The maximum gift per heir is USD 36,000 (USD 18,000 from John and USD 18,000 from Lisa.) With five heirs, the total amount would be USD 180,000 per year. The real, after-tax investment return would be (7% × (1 – 0.1)) – 2.5% = 3.8%. Over the 17 years to John's death, this would accrue to

   $$USD\ 180,000 \times (1.038)\left(\frac{(1.038)^{17} - 1}{0.038}\right) = USD\ 4,352,337.$$

   The lifetime gifts would reduce the final value of the estate by this amount.

   A is incorrect because in this case, a total of USD 90,000 per year is used as the maximum gift from one parent instead of a total of USD 180,000 from both parents:

   $$USD\ 90,000 \times (1.038)\left(\frac{(1.038)^{17}}{0.038}\right) = USD\ 2,176,168.$$

   C is incorrect because in this case, 1 is not subtracted in the numerator of the last term in the annuity factor:

   $$USD\ 180,000 \times (1.038)\left(\frac{(1.038)^{17}}{0.038}\right) = USD\ 9,269,179.$$

2. The relative value of skipping generations is 1/(1 – T). So, in this case, the relative value of John and Lisa gifting directly to their grandchildren is 1/(1 – 0.4) = 1.67.

3. C is correct. An irrevocable trust protects the settlor's gifted assets from their creditors, so it would afford protection for the McDaniel's gifted assets. Additionally, a discretionary trust allows the trustee to determine the amount and timing of distributions to beneficiaries and would thus allow the McDaniels, or other person designated as trustee, to decide whether the intended use was appropriate.

   A is incorrect because a revocable trust would not protect the settlor's gifted assets from their creditors. Moreover, since ownership of the assets remains with the grantor, a revocable trust would likely not qualify as a gratuitous transfer for estate tax purposes. Additionally, a fixed trust specifies the amount and timing of the distribution, so the recipient would be able to use it for anything they want.

   B is incorrect because a fixed trust specifies the amount and timing of the distribution, so the recipient would be able to use it for anything they want.

4. Assuming the illiquid timberland partnership, the hedge fund, and venture capital investments, with a total market value of USD 20 million, are put into a family limited partnership (FLP), with the expected combined lack of liquidity and lack of control discount of 25%, the FLP shares would be valued at just USD 15 million. This is because the recipient would have little control and find it difficult to sell the FLP shares.

   Therefore, a gift of USD 24,000 worth of the underlying assets, when gifted in the form of the FLP shares, would qualify for the USD 18,000 gift exclusion.

   In addition, the FLP shares would provide the heirs with access to private equity, private debt, and other alternative investments that have significant minimum investment requirements that they may not otherwise be able to meet.

5. B is correct. Separate property can be converted into community property if the non-owning spouse's efforts significantly contribute to its growth or improve-

ment. This is known as transmutation.

A is incorrect because the inherited properties have been subject to transmutation.

C is incorrect because there is no evidence of commingling of funds, which occurs when inherited funds are mixed with joint accounts or used for joint expenses.

6. One strategy to avoid leaving Guillaume a share of the business under forced heirship rules would be to move the business, and its assets, into an offshore trust governed by a different domicile not subject to forced heirship rules.

   A second strategy would be to establish joint tenants with right of survivorship with Marko and Elise as joint owners (tenants) of the business.

   A third strategy would be for Vincente to gift as much as possible to Marko and Elise during his lifetime to reduce the value of the final estate.

7. There are several important considerations in developing a wealth transfer strategy for the Clarets.

   A. Gifting and testamentary transfers: Because of the desire to transfer the business to Marko and Elise while leaving a sizable inheritance to Guillaume, it will be important to plan in advance. The Clarets should determine the amount they intend to leave to the children collectively and structure the assets in such a way that the business can go to Marko and Elise while leaving an appropriate inheritance to Guillaume.

   B. Minimizing conflict/communication: Because of the blended family status and the differential treatment of the children, it will be important to communicate the Claret's intent clearly to all involved. It may also be appropriate to include no-contest clauses in any plan.

8. C is correct. A non-grantor charitable lead trust would meet the Claret's goals for both the charities and the children. The charities would receive an immediate and steady stream of financial support during the term of the trust. Moreover, the children would receive the remaining assets upon termination of the trust.

   A is incorrect because in a charitable remainder trust the children would receive an immediate and steady stream of financial support during the term of the trust, and the charities would receive the remaining assets upon termination of the trust.

   B is incorrect because an exemption trust protects the decedent's general exempt amount from estate taxation at the death of the surviving spouse, so it would not immediately benefit the charities.

9. The most appropriate structure for meeting the Sousa's requirements and philanthropic objectives is an LLC. It would give them full control of decision making over the investments and the distribution of assets to charities with maximum flexibility on timing. It would also offer significant privacy benefits compared to a private foundation.

   A. A PF would be less appropriate because

   i. it would typically be required to pay out a minimum percentage of assets annually (i.e., 5% for US PFs), thereby constraining flexibility on timing.

   ii. it offers less privacy than an LLC.

   B. A DAF would be less appropriate because

i. although the Sousas would have advisory privileges on fund investments and distributions, they would have little control.

ii. ultimate legal control over the assets and their distribution would lie with the sponsoring organization.

10. B is correct. A charitable remainder unitrust would pay out a variable amount annually based on a fixed percentage of the trust's value to the Sousas and their children, thereby meeting their income objective. Because the payout is a percentage of assets, there is little chance that poor investment performance would prevent the charitable beneficiary (charity) from receiving funds (the remainder) at the trust's termination.

    A is incorrect because a charitable non-grantor lead trust would make distributions to the charitable beneficiaries, and then at the trust's termination, the remainder would be distributed to non-charitable beneficiaries (heirs). This structure does not meet the Sousa's income objective.

    C is incorrect because a dynasty trust would not likely fulfill the Sousa's income objective given its aim of benefiting multiple generations and creating family dynasties, which is also inconsistent with the Giving Pledge.

11. The Sousa's requirement is an example of cross-cultural competencies, which can be described as an intentional set of principles and ethics to guide work effectively across different cultures. A lack of cross-cultural competencies can cause gifts to go wrong, such as in the case of potentially providing modern farming equipment that the local beneficiaries are unable to properly use, maintain, or repair.

12. C is correct. The Sousa's grant will be made through a charity based in the sub-Saharan African country. Therefore, given this US cross-border grantmaking situation, both equivalency determination and expenditure responsibility must be met for the gift to be qualified as a tax-deductible charitable grant.

    A is incorrect because both equivalency determination and expenditure responsibility must be met for the gift to be qualified as a tax-deductible charitable grant.

    B is incorrect because both expenditure responsibility and equivalency determination must be met for the gift to be qualified as a tax-deductible charitable grant.