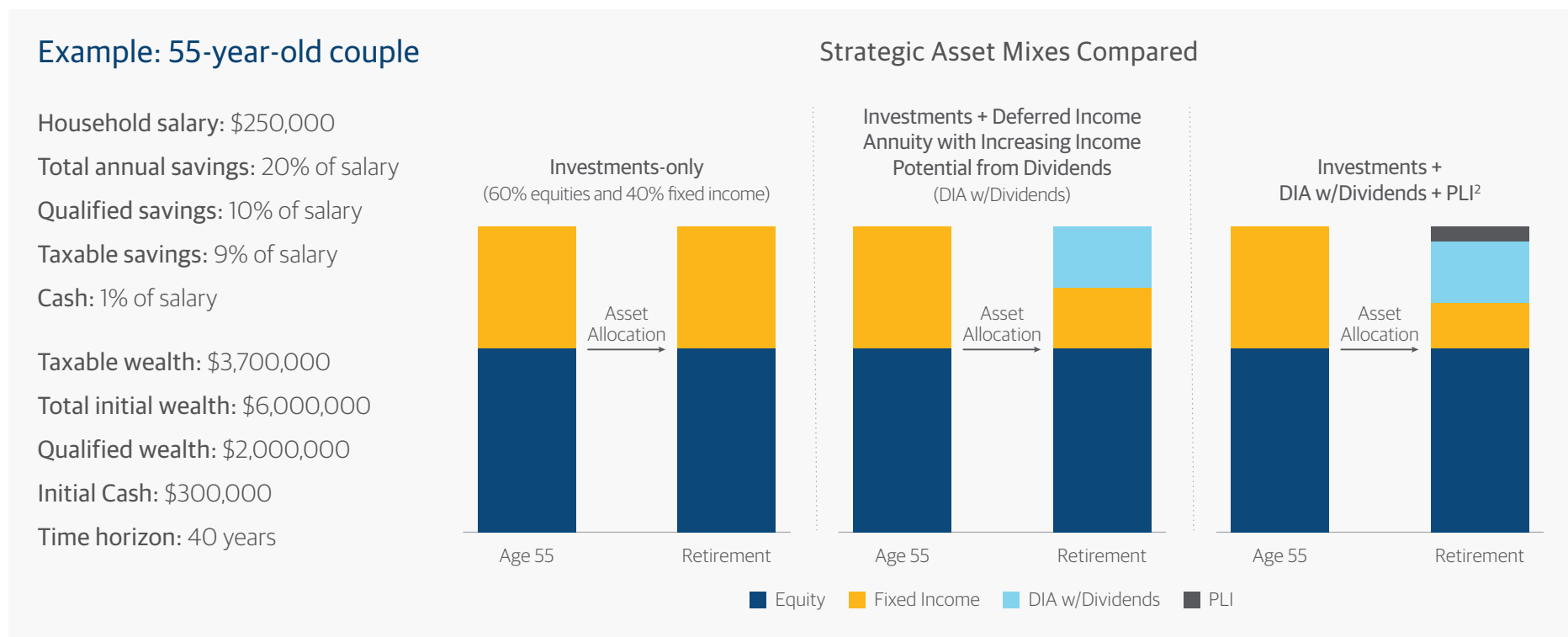


Executive summary: Getting closer to retirement?

A strategic asset mix can increase retirement income and legacy

More retirement income without additional market risk? This may seem too good to be true, but “Getting Closer to Retirement? Analyzing income and legacy with integrated solutions” demonstrates it can happen just by changing asset mix.

Let’s take a closer look at a 55-year-old couple approaching retirement¹. A Monte Carlo analysis, based on a thousand economic scenarios, shows that adding a deferred income annuity with dividends (DIA w/dividends) and permanent life insurance (PLI) along with investments¹ can increase the likelihood of producing more retirement income and legacy value over an investments-only approach.



¹ Product recommendations vary and must be based on the individual circumstances and objectives.

² The PLI policy used is a whole life insurance policy. Dividends paid on a whole life policy or a participating deferred income annuity are not guaranteed. PLI and annuities are not bonds or investment vehicles.

IMPORTANT: The projections or other information generated by this model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. For additional information about material assumptions and limitations of the model, see the disclosure accompanying the attached whitepaper titled “Getting Closer to Retirement? Analyzing income and legacy with integrated solutions.”

The results of the analysis for the 55-year-old couple are presented in Table 1, which also includes the asset allocation at retirement and the potential improvement for retirement income and legacy over an investments-only strategy.

The results demonstrate that including a DIA w/dividends within the retirement strategy can improve retirement income results over an investments-only strategy. Furthermore, including PLI in addition to the DIA w/dividends can also improve legacy results with no to little sacrifice of retirement income.

Table 1

Retirement Strategy	Median Total Portfolio Value Age 65	Asset Allocation at Retirement Age 65				Retirement Income		Legacy	
		Equity	Fixed Income	DIA NV ⁽¹⁾	PLI AV ⁽²⁾	Retirement Income (90% probability of success)	Improvement Over Investment-only	Median Legacy at End of Time Horizon	% Change vs. Investment-only
Investment only	\$9,559,941	60%	40%	0%	0%	\$240,234	—	\$10,503,720	—
10% DIA w/dividends	\$9,616,418	61%	31%	8%	0%	\$249,609	3.90%	\$10,540,523	0.35%
20% DIA w/dividends	\$9,639,233	61%	23%	16%	0%	\$257,812	7.32%	\$10,789,769	2.72%
30% DIA w/dividends	\$9,699,103	61%	14%	25%	0%	\$262,500	9.27%	\$11,329,156	7.86%
10% DIA w/dividends + \$1M PLI	\$9,490,614	61%	28%	8%	3%	\$251,953	4.88%	\$11,048,763	5.19%
20% DIA w/dividends + \$1M PLI	\$9,526,556	61%	20%	16%	3%	\$258,984	7.80%	\$11,226,933	6.89%
30% DIA w/dividends + \$1M PLI	\$9,581,125	61%	12%	24%	3%	\$263,671	9.76%	\$11,791,145	12.26%
10% DIA w/dividends + \$2M PLI	\$9,358,166	61%	25%	8%	6%	\$253,125	5.37%	\$11,245,318	7.06%
20% DIA w/dividends + \$2M PLI	\$9,398,313	61%	17%	17%	5%	\$258,984	7.80%	\$11,567,068	10.12%
30% DIA w/dividends + \$2M PLI	\$9,455,691	61%	9%	25%	5%	\$262,500	9.27%	\$12,144,429	15.62%

(1) NV refers to the DIA w/dividends notional value, which represents the present value of future income payments assuming both interest and mortality. Payments are not available until retirement. Amount is calculated by reducing an assumed sales load of 10% from the premium and then uses an industry mortality table to calculate payments. (2) AV refers to PLI's accumulated policy value.

Annuity and whole life insurance reflect hypothetical products that do not represent any product or policy offered for sale by Northwestern Mutual. Rather, these products are hypothetical in nature and designed with industry average assumptions relating to mortality, expenses, and interest. IMPORTANT: The projections or other information generated by the model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

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Getting closer to retirement?

Analyzing income and legacy with integrated solutions

Ernst & Young (EY), in their research paper titled, *Benefits of integrating insurance products into a retirement plan*, demonstrated that at ages 25, 35 and 45, purchasing a deferred income annuity with dividends and permanent life insurance (PLI)¹ along with contributing to a qualified account can lead to better retirement and legacy outcomes when compared to an investments-only approach. Can the same be said for age 55?

To examine this question, Northwestern Mutual compared various retirement strategies for a 55-year-old high-net-worth couple planning to retire at age 65.²

Example: 55-year-old couple

Household salary: \$250,000

Cash: 1% of salary

Taxable wealth: \$3,700,000

Total annual savings: 20% of salary

Total initial wealth: \$6,000,000

Cash: \$300,000

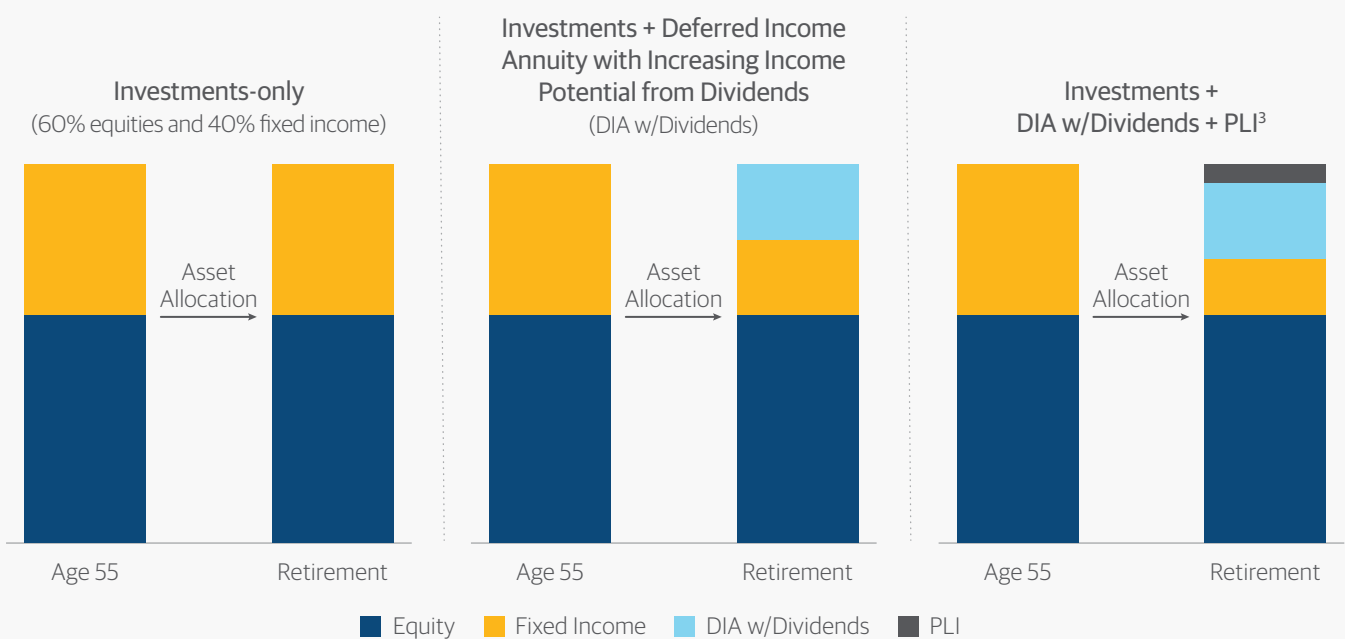
Qualified savings: 10% of salary

Qualified wealth: \$2,000,000

Time horizon: 40 years

Taxable savings: 9% of salary

Strategic Asset Mixes Compared



¹ The PLI policy used is a whole life insurance policy. Dividends paid on a whole life policy or a participating deferred income annuity are not guaranteed.

² Product recommendations vary and must be based on the individual circumstances and objectives.

³ PLI and annuities are not bonds or investment vehicles.

To compare these retirement strategies, a Monte Carlo analysis was used to generate 1,000 scenarios based on a variety of potential interest rates, equity returns and bond returns. We compared:

- The amount of after-tax income that each strategy can generate in retirement with a 90% probability of success, meaning that the strategy generated the indicated level of income 900 out of 1,000 times.
- The total amount of legacy (investments, cash and/or death benefit) available, after retirement income has been taken, to be passed to heirs at the end of the time horizon.
 - When purchasing a DIA w/dividends, only qualified account assets are used with amounts based on reallocating 10%, 20%, and 30% of the client’s total initial wealth.
 - In the strategies where PLI is also included, the PLI is purchased in death benefit amounts of \$1M and \$2M using a combination of savings budget and repositioned taxable assets to cover the premium.

The results of the analysis are presented in Table 1, which also includes the potential percent improvement over an investments-only strategy.

Retirement Strategy	Retirement Income		Legacy	
	Retirement Income (90% probability of success)	Improvement Over Investment-only	Median Legacy at End of Time Horizon	% Change vs. Investment-only
Investment-only	\$240,234	–	\$10,503,720	–
10% DIA w/dividends + investments	\$249,609	3.90%	\$10,540,523	0.35%
20% DIA w/dividends + investments	\$257,812	7.32%	\$10,789,769	2.72%
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10% DIA w/dividends + \$2M PLI + investments	\$253,125	5.37%	\$11,245,318	7.06%
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30% DIA w/dividends + \$2M PLI + investments	\$262,500	9.27%	\$12,144,429	15.62%

The results demonstrate that including a DIA w/ dividends within the retirement strategy can improve retirement income results over an investments-only strategy. Furthermore, including PLI in addition to the DIA w/dividends can also improve legacy results with no or little sacrifice of retirement income.

A retirement strategy which includes a combination of DIA w/dividends and PLI could improve both retirement income and legacy results over that of an investment-only strategy.

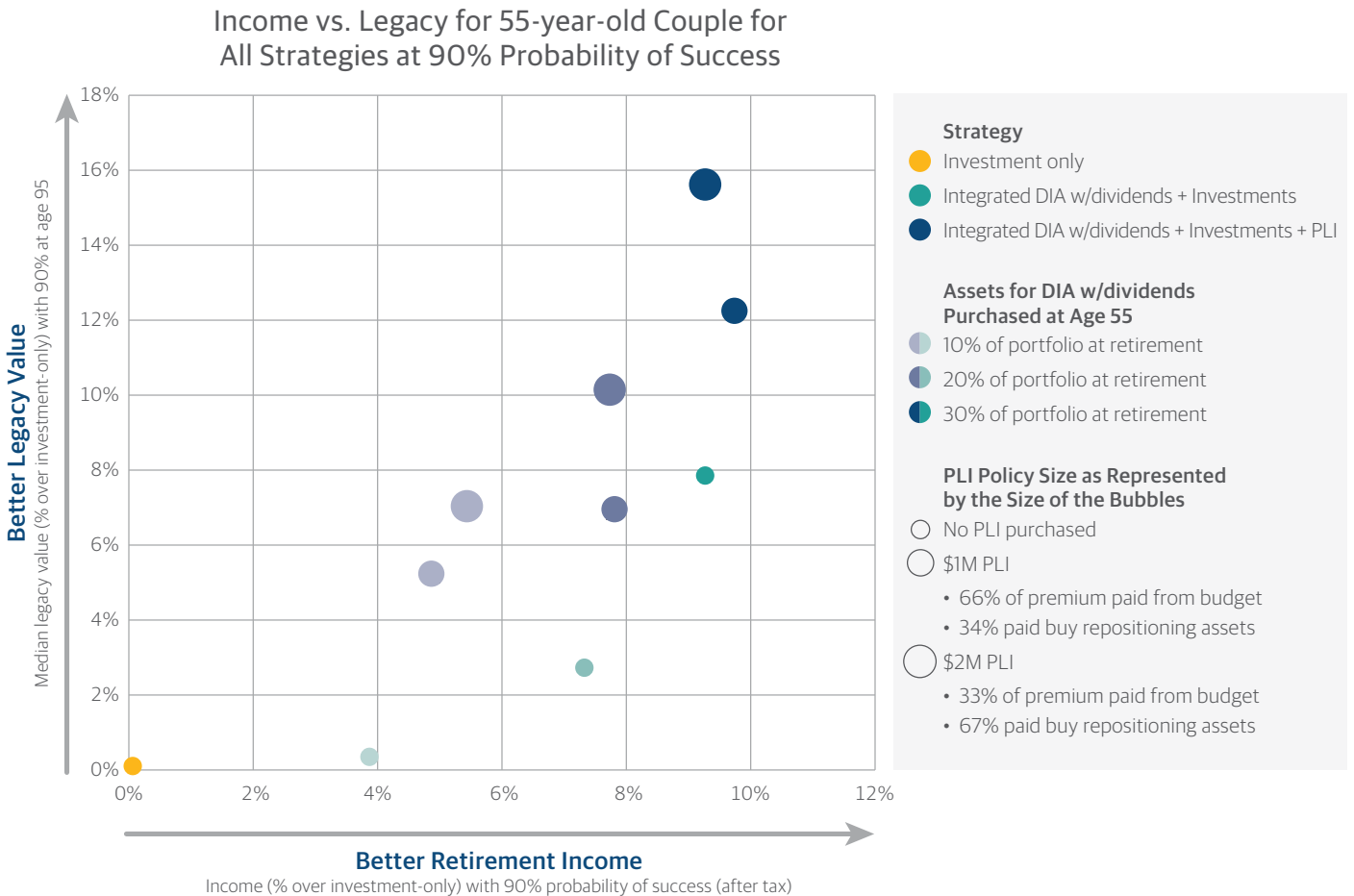
Annuity and whole life insurance reflect hypothetical products that do not represent any product or policy offered for sale by Northwestern Mutual. Rather, these products are hypothetical in nature and designed with industry average assumptions relating to mortality, expenses, and interest.

IMPORTANT: The projections or other information generated by the model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

Figure 1 is the graphical representation of the results which clearly show the value of including a DIA w/dividends as well as PLI within a retirement strategy in terms of the percentage improvement over an investment-only strategy.

It is important to understand the 55-year-old in this example is looking to improve both retirement income and legacy outcomes. Their goal is not to reach retirement age with the maximum amount of assets, but rather with the optimal mix of assets that will lead to the best possible retirement income and legacy outcomes.

Figure 1



The goal is to improve retirement income and legacy with an optimal mix of investments, income annuity, and permanent life insurance versus just investments.

Table 2 compares the median total value of the assets at the time of retirement, broken down by the percent allocated across each of the financial assets owned at the time of retirement for each strategy. The equity allocation is virtually identical across each of the potential strategies. The assets deemed to be safer in nature (fixed income, a DIA w/dividends, and PLI) comprise the balance. Each strategy is balanced between approximately 60% higher-risk assets (i.e., equities) and 40% safer assets.

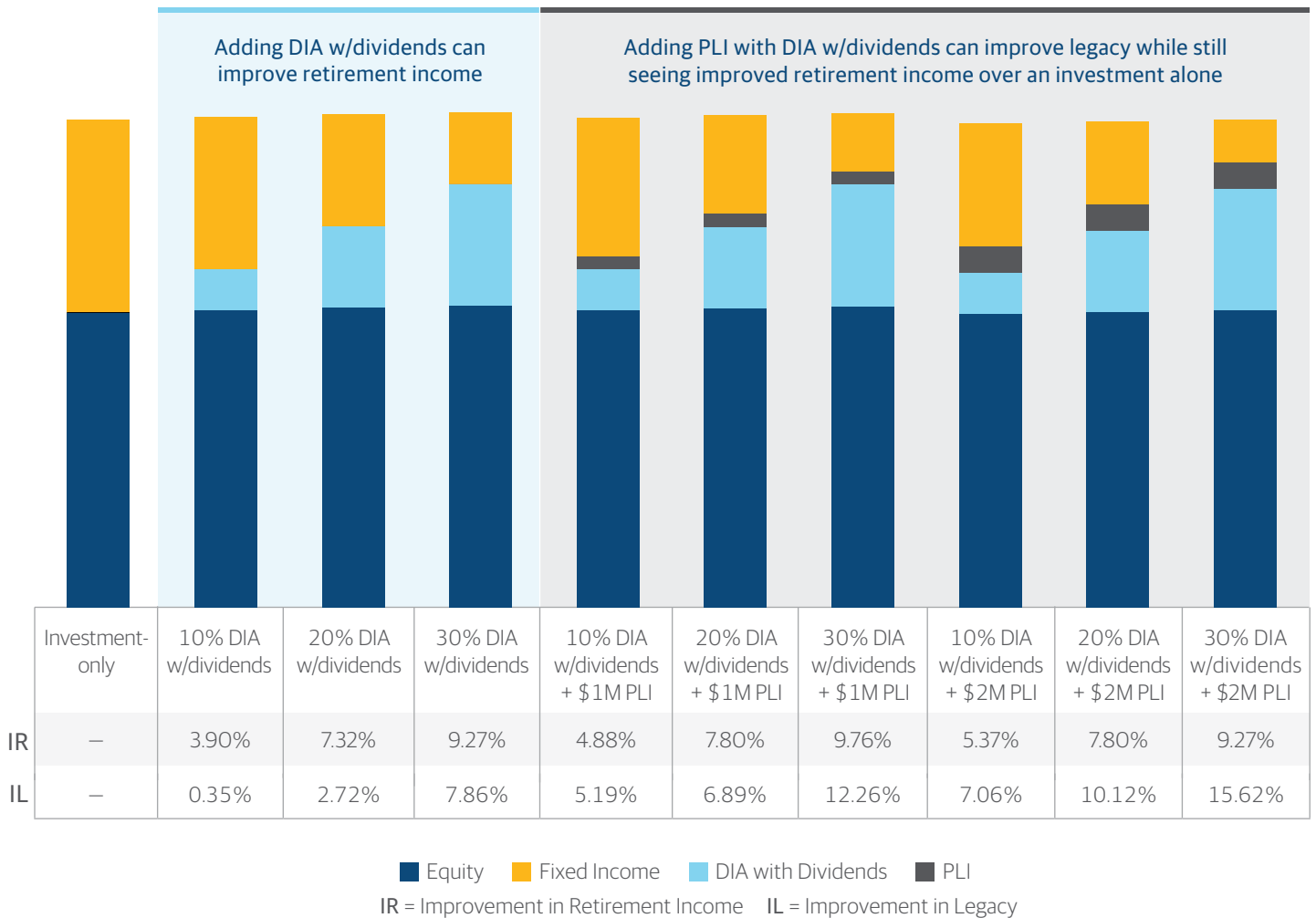
The results show the greater the allocation to DIA w/dividends, the more improvement in retirement income. In general, this improvement is limited by the qualified account balance which was used to purchase the DIA w/dividends. Beyond the improvement seen in retirement income when purchasing the DIA w/dividends, the larger the allocation to PLI, the more improvement in the legacy amount.

Table 2

Retirement Strategy	Median Total Portfolio Value Age 65	Asset Allocation at Retirement Age				Improvement in Retirement Income	Improvement in Legacy
		Equity	Fixed Income	DIA NV ⁽¹⁾	PLI AV ⁽²⁾		
Investment only	\$9,559,941	60%	40%	0%	0%	–	–
10% DIA w/dividends	\$9,616,418	61%	31%	8%	0%	3.90%	0.35%
20% DIA w/dividends	\$9,639,233	61%	23%	16%	0%	7.32%	2.72%
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(1) NV refers to the DIA w/dividends notional value, which represents the present value of future income payments assuming both interest and mortality. Payments are not available until retirement. Amount is calculated by reducing an assumed sales load of 10% from the premium and then uses an industry mortality table to calculate payments. (2) AV refers to PLI's accumulated policy value.

Asset Allocation at Retirement by Strategy and Its Impact on Retirement Income and Legacy



A common concern when purchasing a DIA w/dividends for the purpose of generating lifetime income is the liquidity given up early in retirement. The assets used to purchase the annuity in this scenario represent about a third of the client's total portfolio of assets, and are qualified assets – money that was accumulated specifically to generate retirement income and presumably not as a source of liquidity in the first place. Two-thirds of the client's portfolio is still liquid. Furthermore, the client is still receiving reliable lifetime income payments from the DIA w/dividends.

Owning PLI in addition to a combination of investments and a DIA w/dividends, can improve both retirement income and legacy outcomes beyond that of an investment-only strategy.

Another common concern when purchasing a DIA w/dividends is dying too early in retirement and feeling like the money is lost since expected future payments will not be received. An integrated solution can help solve for that concern, as owning PLI, investments and a DIA w/dividends can improve not only retirement income, but legacy outcomes as well.

Table 3 provides the specific breakdown of how the various strategies are initially funded for this 55-year-old couple, including the amount of qualified dollars committed to the purchase of the DIA w/dividends and the source of the dollars used to purchase the PLI policy. With respect to PLI, the larger the policy, the larger the premium, and the larger the amount of taxable dollars that are used to pay a portion of that premium. This approach can yield significant ultimate legacy benefits without sacrificing the retirement income improvements achieved with the purchase of the DIA w/dividends.

Table 3

Initial Funding Matrix Across Retirement Strategies							
		Qualified	Taxable	Cash	DIA w/dividends	PLI Premium	Conclusion
Investment only		\$26,000	\$22,000	\$2,000	\$0.00	\$0	—
Investment + DIA w/dividends	10% DIA	\$26,000	\$22,000	\$2,000	\$600,000 (30% of qualified account balance)	\$0	Including DIA w/dividends improves outcomes over the investment only strategy
	20% DIA	\$26,000	\$22,000	\$2,000	\$1.2M (60% of qualified account balance)	\$0	
	30% DIA	\$26,000	\$22,000	\$2,000	\$1.78M (90% of qualified account balance)	\$0	
Investments + DIA w/dividends + PLI	\$1M PLI	\$26,000	\$0	\$2,000	Same levels of DIA w/dividends premium as above	\$33,507*	Also including PLI, even when paying a portion of the premium from existing assets, improves outcomes over the investment only strategy
	\$2M PLI	\$26,000	\$0	\$2,000		\$67,014*	

* \$22,000 of the annual PLI premium is paid out of pocket and the balance is paid from the non-qualified investment account.

Key takeaways

- When planning for retirement, based upon the scenarios run, implementing a retirement strategy which includes a DIA w/dividends, PLI, and investments can improve retirement income while also improving legacy.
 - Improved retirement income by as much as 10% over an investment-only strategy by using up to 30% of investment assets to purchase a DIA w/dividends.
 - Improved legacy results by over 15% without sacrificing retirement income by purchasing PLI using a combination of savings dollars and existing assets.
- Funding the purchase of PLI by liquidating existing assets is a worthwhile strategy for improving legacy outcomes.

Conclusion

An integrated portfolio of assets can maximize retirement income potential and also position one to leave a larger legacy under the scenarios examined. By expanding the mix of assets beyond traditional investments to include a DIA w/dividends and permanent life insurance you may be able to enhance your retirement and legacy picture with a higher degree of confidence than investing alone.

The value of combining insurance and investment solutions: The details matter

While we acknowledge every situation is different and this strategy may not work in all circumstances, the following are the assumptions used in the scenarios, which were designed to be representative of what our financial representatives may see in real-life planning situations with high-net-worth clients. These return assumptions are a forward-looking projection of possible future returns based on the present interest rate and economic outlook. The scenarios assume a healthy couple, age 55, with an annual income of \$250,000 that grows 2.5% annually. The couple saves 20% of their annual income up until retirement at age 65 and contributes 8% of gross salary to a qualified account. They have a balanced risk tolerance level (60% equities/40% fixed income or other safer assets) in all years. A mortality age of 95 is assumed for both individuals.



The client maintains an emergency fund of \$100,000 that indexes with inflation, which aligns with Northwestern Mutual's planning philosophy of saving 6 months of expenses. It is initially funded with cash, but in the integrated strategies, as the cash value within the whole life policy grows, that amount is used as the emergency fund. At retirement, the emergency fund is transferred into a cash reserve fund of \$340,000, which is two years of household expenses after-tax. Income is pulled from this cash reserve if there is a down market of 10% or more to avoid selling investments at a significant loss. For integrated scenarios that include whole life in the portfolio, the cash value obviates the need for cash reserve. Note, however, that accessing cash value as either a policy loan or partial surrender will have an impact on the amount of cash value and legacy value/death benefit and, under certain circumstances, may result in a taxable event.



All taxes, whether on investments or insurance products, due along the way (such as ordinary income taxes) are assumed to be paid based on the 2021 Federal income tax joint filing bracket. All values would be impacted by an increase in tax rates.



The insurance: A hypothetical all-base whole life policy that goes paid up at age 65 is used and does not represent any specific policy issued by Northwestern Mutual. Whole life insurance has a longer-term outlook with immediate benefits in the form of death benefit coverage. The policy's growth is affected by an addition of the waiver of premium rider, which reduces the policy's cash value growth. It assumes industry mortality and expense experience and a dividend interest rate that correlates to and lags bond rates.

The scenario assumes the policy is not a modified endowment contract (MEC) and does not allow for any additional premiums to be paid at any point. Policy loans are not treated as taxable at the time they are taken. Generally, partial surrenders of life insurance policies are treated first as tax-free distributions of the premiums paid into the

contract (AKA "cost basis") followed by taxable distributions of gain once all the cost basis has been distributed. If a policy is a MEC, partial surrenders and loans are treated first as distributions of gain, subject to ordinary income taxation and possibly subject to an additional 10% penalty tax if the owner is under age 59½. Unpaid loan interest is capitalized to the loan principal, and the loan balance may grow large enough to cause the policy to lapse. If a policy were to lapse or is surrendered prior to the insured's death, the loan will be repaid from the policy's cash value and taxed as a distribution, subject to ordinary income taxation to the extent the loan exceeds the cost basis.

The legacy value represents the post-tax portfolio value available to the beneficiaries upon the clients' death, which includes the life insurance death benefit, if any. Legacy value assumes a lump sum distribution, a step-up in basis of the taxable account, and a beneficiary tax rate of 25%.



The annuity: A hypothetical participating deferred income annuity is used. The joint life 100% to survivor zero period certain plan is purchased at age 55 with qualified assets. 100% of the dividends are used to purchase additional income until age 65, when income starts, then 50% of the dividends are used to purchase future income and 50% of the dividends are taken as distributions in cash for current income. While income is only shown until age 95, the annuity pays out for the annuitant's entire lifetime.

Dividends paid on a whole life policy or a participating deferred income annuity are not guaranteed.



We assume that investments are comprised of a diversified portfolio of investments aligned with NM's investment philosophy and with an equity allocation similar to the MSCI ACWI Index, a broad basket of equities. We assume a fixed income allocation comprised of bonds that is consistent with the Barclay's Aggregate bond index, a diversified fixed income portfolio. The starting account values total \$6.0M including assets

held in both taxable and tax-deferred accounts. For tax purposes, we assume an annual 2.5% dividend on equity investments and an annual turnover rate of 25%. In the integrated scenarios, cash value from whole life insurance is considered to be a "safer asset" when rebalancing, given its risk profile, enabling a lower allocation to fixed income. Taxes assume an ordinary income rate commensurate with the level of income. A constant 15% capital gains tax rate is assumed for all capital gains and the state effective tax rate is 6%. Advisory fees based on assets under management are 1%. Investment management fees are 0.25% and cash assumes a taxable 1% annual return. Upon death, the beneficiary is taxed 25% on the qualified account balances that are inherited while taxable investments receive a step up in basis, which is unlike a life insurance death benefit which is generally received income tax-free. Capital market assumptions (CMAs), including standard deviations and correlations, are from Northwestern Mutual's Investment Risk & Operations. The CMAs are based on forecasts of asset class returns over the next 80 years and the table below includes both expected geometric mean returns and expected arithmetic mean returns.

Asset Class	Expected Return – Geometric	Expected Return – Arithmetic	Standard Deviation
US Equity – Large Cap	6.51%	7.45%	14.70%
US Equity – Mid Cap	7.56%	8.74%	16.49%
US Equity – Small Cap	7.53%	9.09%	18.89%
Int'l Developed Markets	6.26%	9.09%	18.89%
Int'l Emerging Markets	7.50%	9.44%	21.38%
Real Estate Securities	6.39%	8.04%	19.51%
Commodities	2.62%	3.81%	16.98%
Fixed Income	4.32%	4.38%	4.01%
Other	6.08%	6.08%	6.08%
Cash	2.65%	2.69%	3.30%

Correlations: The following asset class correlation coefficients were used (rounded to nearest hundredth):

	US Equity – Large Cap	US Equity – Mid Cap	US Equity – Small Cap	Int'l Developed Markets	Int'l Emerging Markets	Real Estate Securities	Commodities	Fixed Income	Other	Cash
US Equity – Large Cap	1.00	0.91	0.90	0.78	0.80	0.62	0.35	0.17	1.00	0.22
US Equity – Mid Cap		1.00	0.94	0.72	0.73	0.57	0.32	0.16	0.91	0.20
US Equity – Small Cap			1.00	0.71	0.73	0.57	0.31	0.14	0.90	0.18
Int'l Developed Markets				1.00	0.73	0.42	0.27	(0.04)	0.78	0.27
Int'l Emerging Markets					1.00	0.43	0.28	(0.07)	0.80	0.26
Real Estate Securities						1.00	0.21	0.22	0.62	0.06
Commodities							1.00	0.24	0.35	0.30
Fixed Income								1.00	0.00	0.56
Other									1.00	0.22
Cash										1.00

The Capital Market Assumptions (CMAs) shown above are based on the averages derived from 1000 trials over an eighty-year time period. For purposes of the performing any probability analysis we use CMAs calculated for each year, which vary over time. The model that we use for simulating asset class returns assumes that risk factors in the economy (such as nominal and real interest rates, investment grade corporate spreads and equity factors) are the drivers of asset class returns. We studied the historical correlation between these risk factors and the prices and performance of asset classes and constructed a statistical model that could explain the prices of asset classes over time based on the risk factors. We also consider current valuation levels of asset classes.

In each of the 1000 trials, we randomized the economic risk factors to create a possible future path of the economy, and each year calculated the asset prices and returns based on the randomized risk factors. For example, if the risk factors show the economy in a recession, higher corporate spreads correspond to the lower equity returns. We randomize the risk factors using a time series model with mean reversion, meaning that the values in one year are the starting point for determining the values in the next year, and that over time risk factors revert to the economic assumptions that underlie the CMAs and not necessarily historical averages. NM CMAs are intended to put into perspective realistic expectations of investment risk-returns profiles of various asset classes and to reflect the relative behavior of the asset classes over the long-term. The development of CMA combines two forecasting approaches: (1) quantitative empirical modeling to capture historical data relationship, and (2) forward-looking adjustments which reflect judgment and insight from internal asset managers and third-party CMA providers.

The models we use to randomize risk factors consider present asset prices and current economic conditions as the starting point for simulations. The mean reversion within the model means that each year the average of risk factors change, and the returns of asset classes are different, and shift over time.

The simulation considers present asset values as its starting point. Compared to historical averages, at the time these simulations were done, equity asset classes were assumed to be richly valued. Thus, in the short term, equity asset classes have lower average returns as valuation levels return to historical averages. In the longer-term equity asset classes average returns increase as the importance of current valuation levels diminishes. The model also considers current interest rates, which are low by historical standards. The simulations assume that over time real interest rates will increase as they revert to historical averages. Cash and Fixed Income have lower short-term rates of return, due to current interest rates, but average returns increase with the assumption that real interest rates will increase as well.

Limitations of this Analysis. The results of this analysis are based on assumptions that may differ significantly from your own facts and circumstances. Results may vary based on differing assumptions regarding net worth, time horizon, salary, and other variables. This analysis also uses an assumed portfolio that may not be appropriate for you depending on your risk tolerance and investment objectives. Use of a different assumed portfolio may cause results to differ. This analysis does not project the results of any actual investments or holdings and should not be interpreted as a recommendation of any particular investment or investment strategy.

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