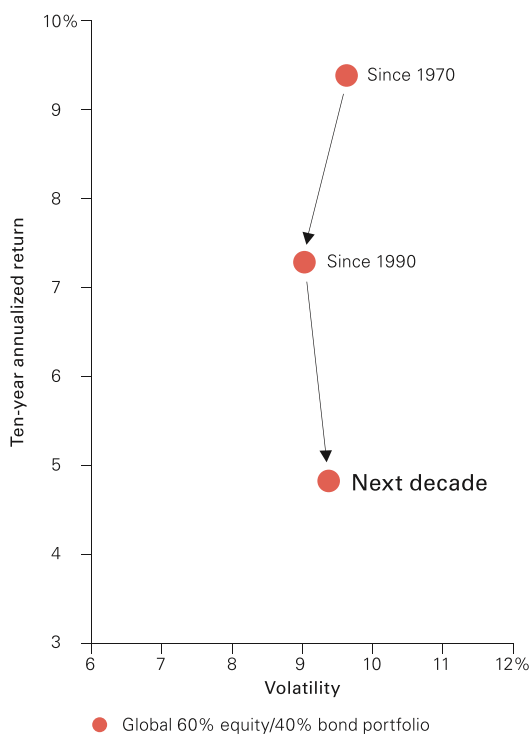


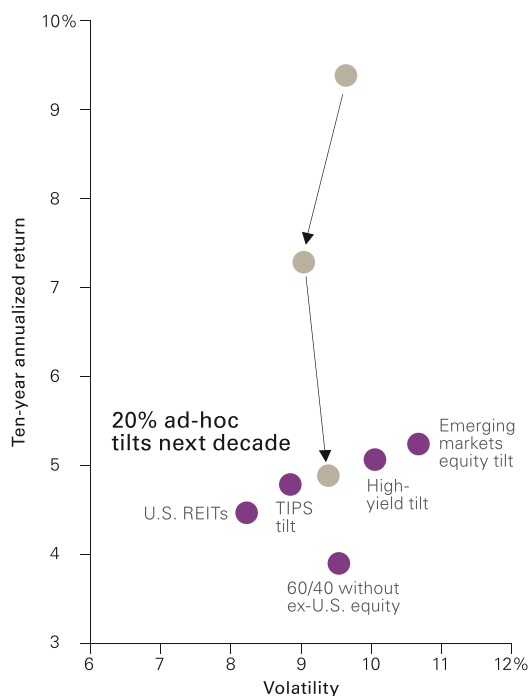
FIGURE II-8

## Asset allocation for a challenging decade

a. A lower return orbit ...



b. ... that popular "active tilts" will likely fail to escape



c. Projected ten-year annualized nominal returns

	Portfolios	5th percentile	25th percentile	Median	75th percentile	95th percentile	Median volatility
Global balanced portfolios	100% bonds	1.0%	1.7%	2.2%	2.8%	3.9%	3.6%
	20/80 stock/bond	1.7%	2.6%	3.2%	3.9%	5.0%	4.1%
	60/40 stock/bond	1.5%	3.5%	4.9%	6.3%	8.4%	9.1%
	80/20 stock/bond	1.0%	3.7%	5.5%	7.3%	10.1%	12.0%
	100% equity	0.5%	3.8%	6.1%	8.3%	11.7%	15.1%
	<b>60/40 stock/bond</b>	<b>1.5%</b>	<b>3.5%</b>	<b>4.9%</b>	<b>6.3%</b>	<b>8.4%</b>	<b>9.1%</b>
Portfolios with common 20% tilts	High-yield tilt	1.7%	3.8%	5.1%	6.6%	8.7%	10.0%
	U.S. tilt	1.1%	3.2%	4.6%	6.0%	8.2%	9.1%
	EM equity tilt	1.5%	3.7%	5.2%	6.7%	8.9%	10.5%
	60/40 without ex-US equity	0.2%	2.5%	4.0%	5.6%	8.0%	9.5%
	REIT tilt	1.3%	3.2%	4.5%	5.9%	8.0%	8.5%
	TIPS tilt	1.5%	3.4%	4.8%	6.2%	8.2%	8.8%

**Notes:** Summary statistics of 10,000 VCMM simulations for projected ten-year annualized nominal returns as of September 30, 2019, in USD before costs. Historical returns are computed using indexes defined in "Indexes used in our historical calculations" on page 5. The global equity is 60% U.S. equity and 40% global ex-U.S. equity. The global bond portfolio is 70% U.S. bonds and 30% global ex-U.S. bonds. Portfolios with tilts include a 20% tilt to the asset specified, funded from fixed income allocation for the fixed income tilt and equity allocation for the equity tilt. The optimized frontier consists of U.S. equity, non-U.S. equity, U.S. bonds, non-U.S. bonds, U.S. intermediate credit, TIPS, and long-term Treasury. Non-U.S. equity is constrained to not exceed 60% of equity allocation. Non-U.S. bonds are constrained to not exceed 50% of bond allocation. Allocation to U.S. intermediate credit is constrained to not exceed 70% of U.S. bond allocation.

Source: Vanguard.