



 Market Strategy
Group, LLC

10-Year Returns of Cause Investing

June 2021

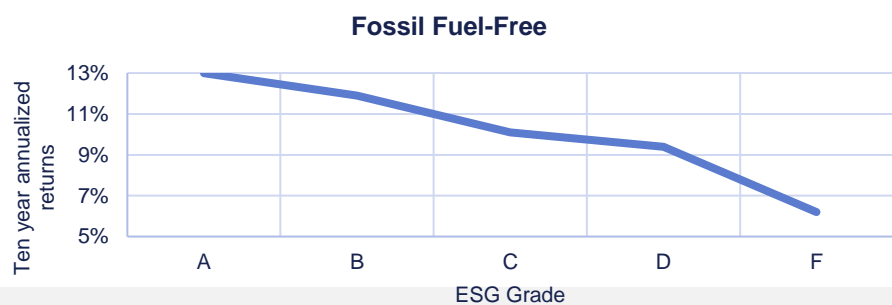
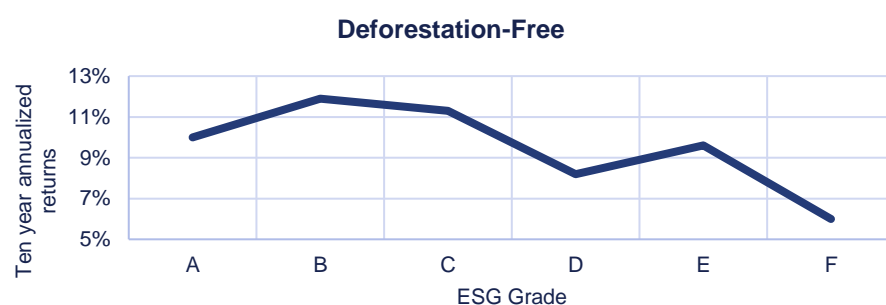
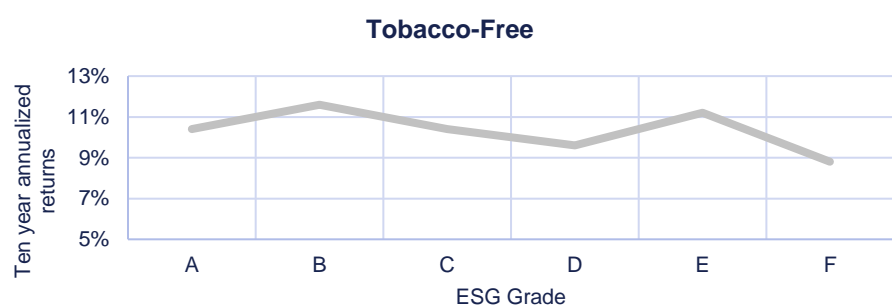
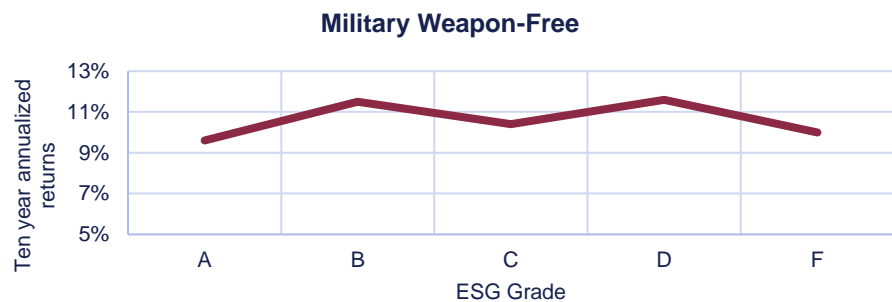
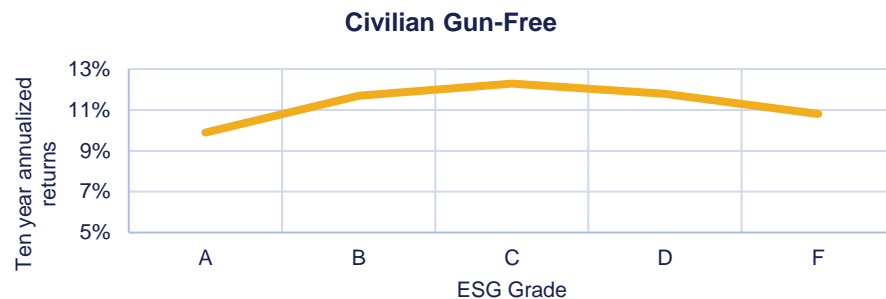
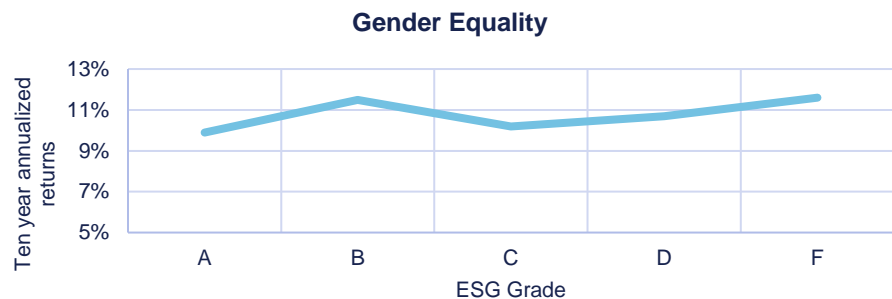
Over the Long-Term, Most Cause-Based Investing Has Little Impact on Returns

- Because public and shareholder pressure is causing some companies to modify their investment plans, Market Strategy Group (MSG) decided to create an updated analysis of the correlation between cause-based investing and long-term returns, using data from As You Sow and Morningstar
- Previous analyses have generally found positive correlations between ESG metrics and financial performance¹² but MSG's analysis finds that positive correlations for cause-based investing exist only for some ESG causes and not for others.
- MSG analyzed the 10-year annualized returns of 1,459 mutual funds and found:
 - **Little to no effect on returns for mutual funds targeting most environmental, social, and governance (ESG) causes:**
 - Gender equality
 - Civilian firearms
 - Prison and borders industry
 - Military weapons
 - Tobacco
 - **Positive impact on returns for mutual funds divesting from Deforestation and Fossil fuels:**
 - Mutual funds/ETFs with an “A” deforestation grade had an average 10-year annualized return of 10% compared to 6% among funds with an F grade.
 - Mutual funds/ETFs with an “A” fossil fuels grade had an average 10-year annualized return of 13% compared to 6% among funds with an F grade. However, oil prices dropped from ~\$100/barrel to ~\$60/barrel over the study time period, likely explaining at least some portion of this difference

¹[ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies](#)

²[ESG and Financial Performance Uncovering the Relationship by Aggregating Evidence from 1,000 Plus Studies Published between 2015 – 2020](#)

10-Year Returns Generally Similar Regardless of ESG Grade, Except for Deforestation and Fossil Fuels



ESG Grades and 10-year Annualized Returns (Detail)

ESG Cause Grade	ESG Causes						
	Gender Equality	Gun-Free	Weapon-Free	Prison-Free	Tobacco-Free	Deforestation-Free	Fossil-Fuel-Free
	Effect of Grade on Returns						
	No Effect	No Effect	No Effect	No Effect	No Effect/ Modest Increase	Increase	Increase
	10-year Annualized Return						
A	9.9%	9.9%	9.6%	7.7%	10.4%	10.0%	13.0%
B	11.5%	11.7%	11.5%	12.0%	11.6%	11.9%	11.9%
C	10.2%	12.3%	10.4%	12.6%	10.4%	11.3%	10.1%
D	10.7%	11.8%	11.6%	11.6%	9.6%	8.2%	9.4%
F	11.6%	10.8%	10.0%	9.5%	8.8%	6.0%	6.2%

Note: Deforestation Free and Tobacco Free have “E” Grades. Returns were on average 9.6% for “E” Grade Deforestation Free and 11.2% for “E” Grade Tobacco Free

Performance of Funds by Gender Equality Grade

Gender equality has little effect on annualized returns.

Performance of Funds by Gender Equality Grade

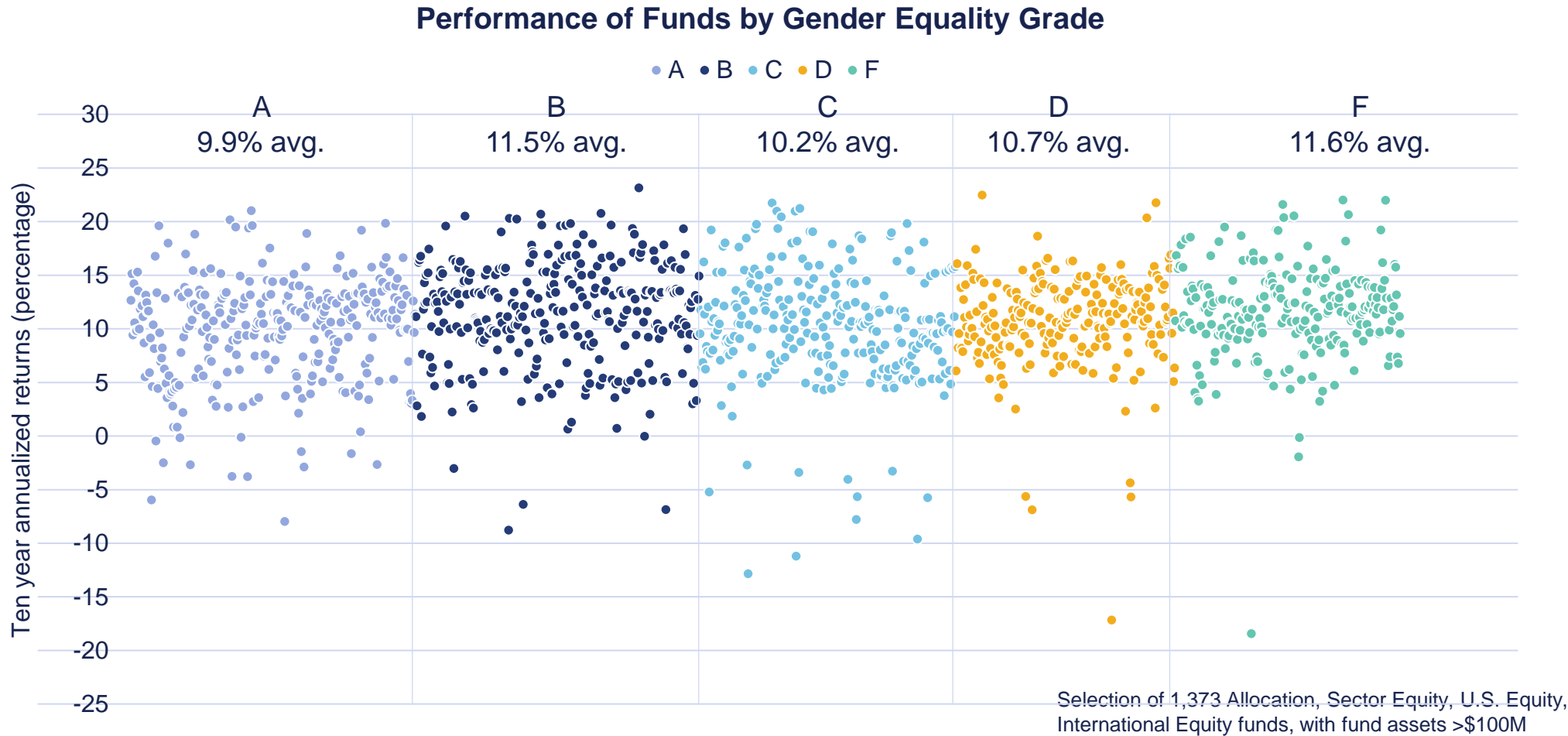


Selection of 1,373 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

The Equileap Gender Equality Scorecard scores companies based on 19 criteria, including gender balance across the workforce, the gender pay gap, paid parental leave, and anti-sexual harassment policies.

Performance of Funds by Gender Equality Grade

Gender equality has little effect on annualized returns.

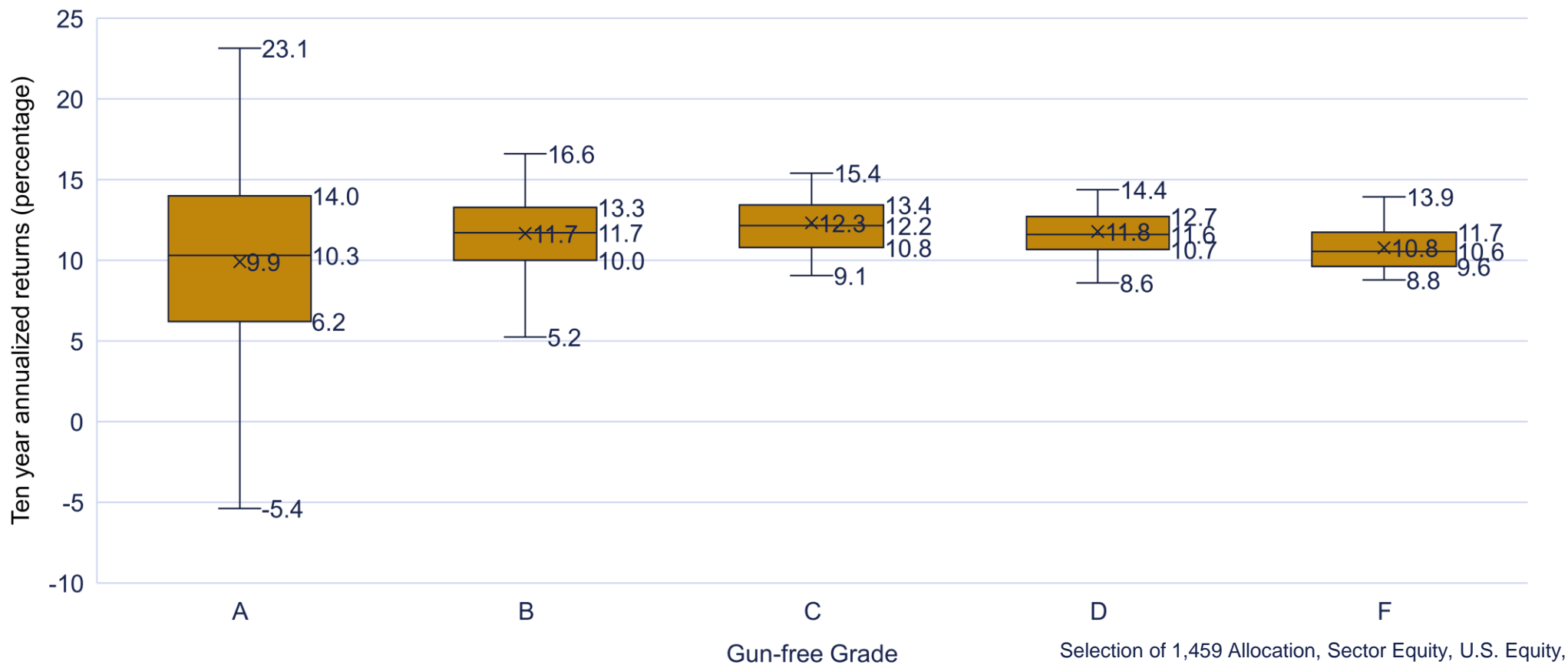


The Equileap Gender Equality Scorecard scores companies based on 19 criteria, including gender balance across the workforce, the gender pay gap, paid parental leave, and anti-sexual harassment policies.

Performance of Funds by Gun-free Grade

Gun-free grade has little effect on annualized returns.

Performance of Funds by Gun-free Grade



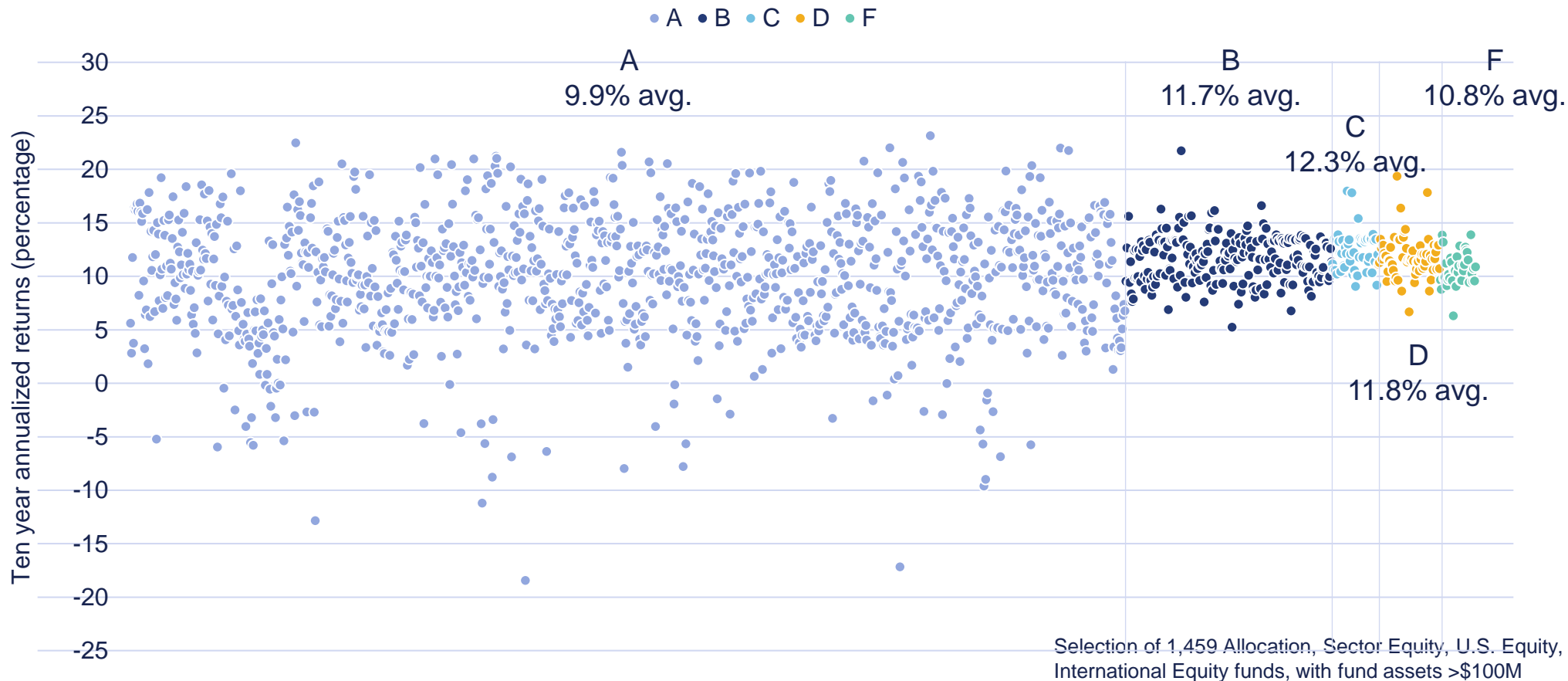
Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Gun-free Funds screens for civilian free-arm investments (retailers and manufacturer companies) companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Gun-free Grade

Gun-free grade has little effect on annualized returns.

Performance of Funds by Gun-free Grade

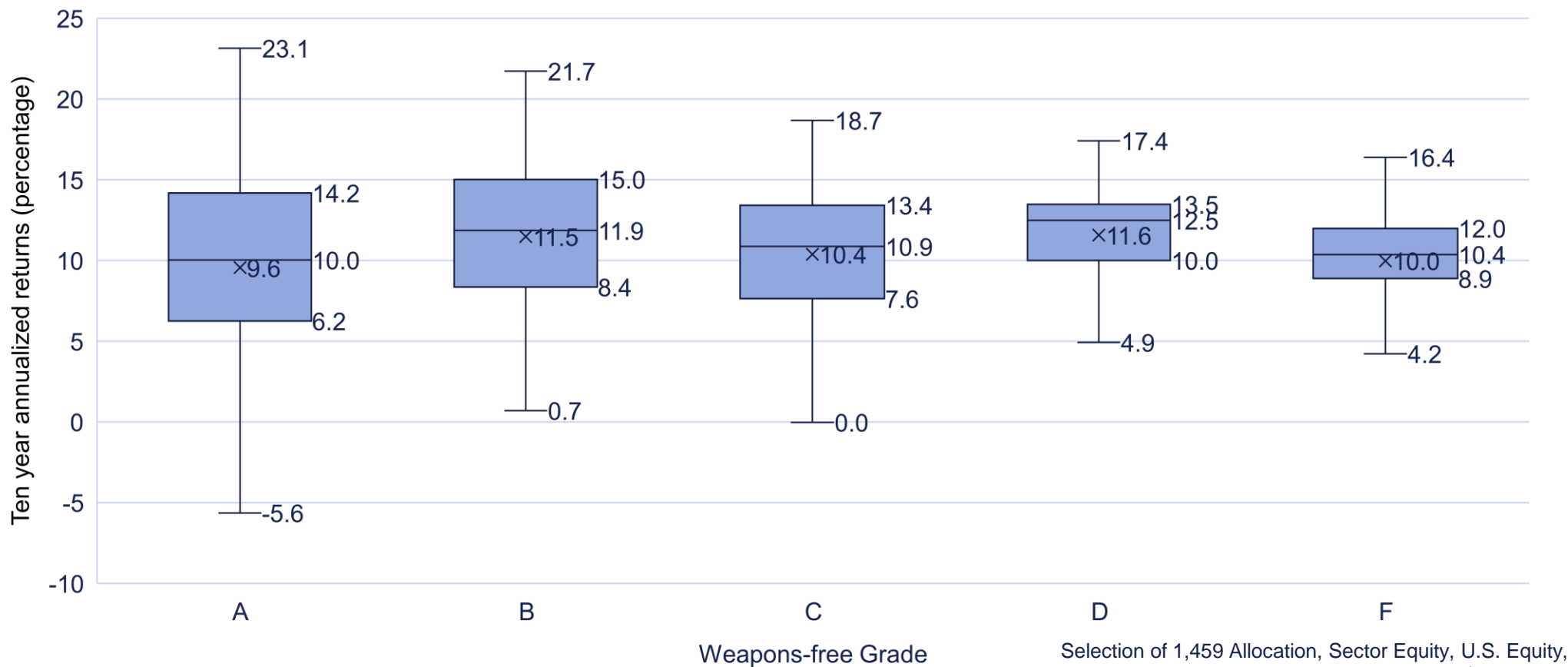


Gun-free Funds screens for civilian free-arm investments (retailers and manufacturer companies) companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Weapons-free Grade

Weapons-free grade has little effect on annualized returns.

Performance of Funds by Weapons-free Grade

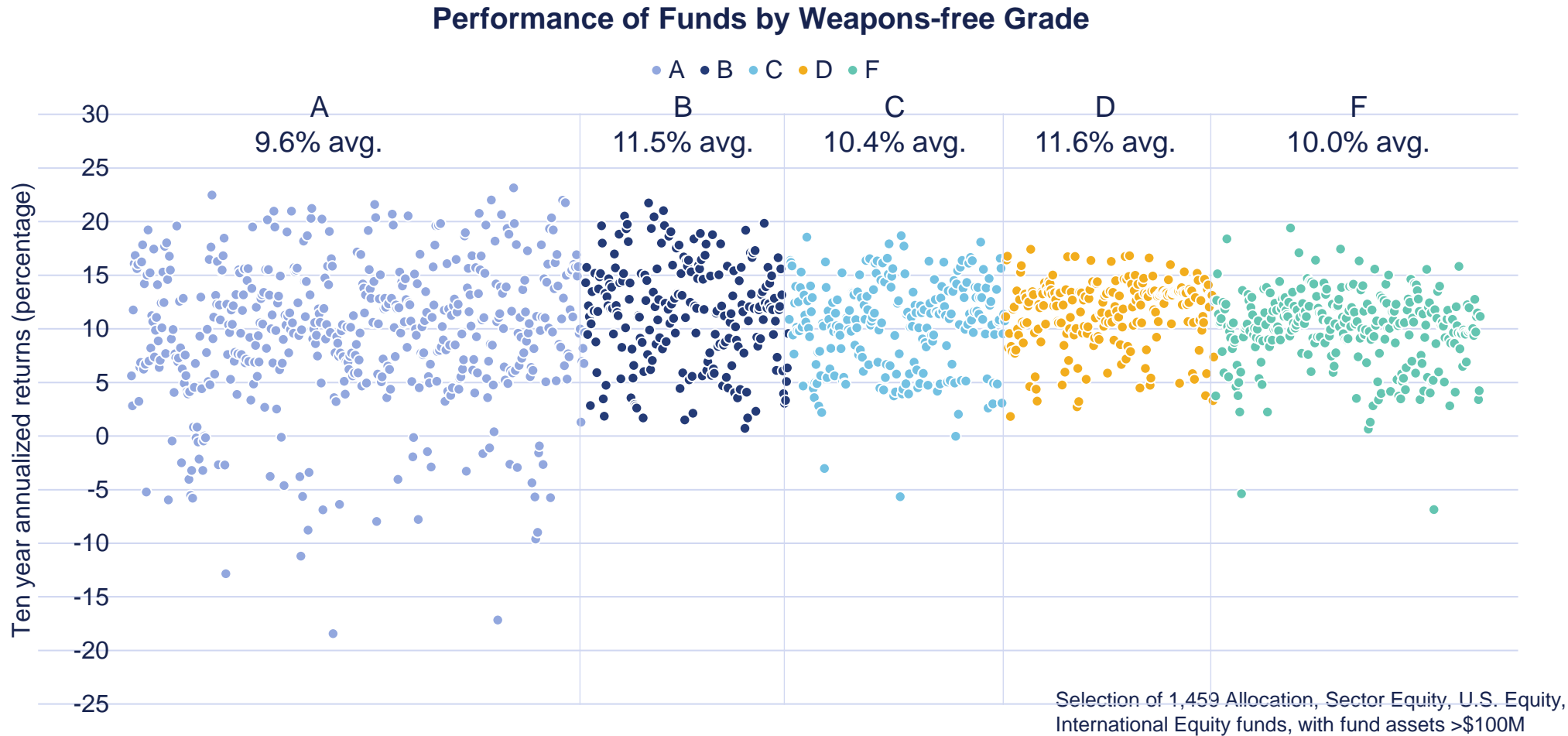


Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Weapons Free Funds screens for military arms manufacturers and services companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Weapons-free Grade

Weapons-free grade has little effect on annualized returns.

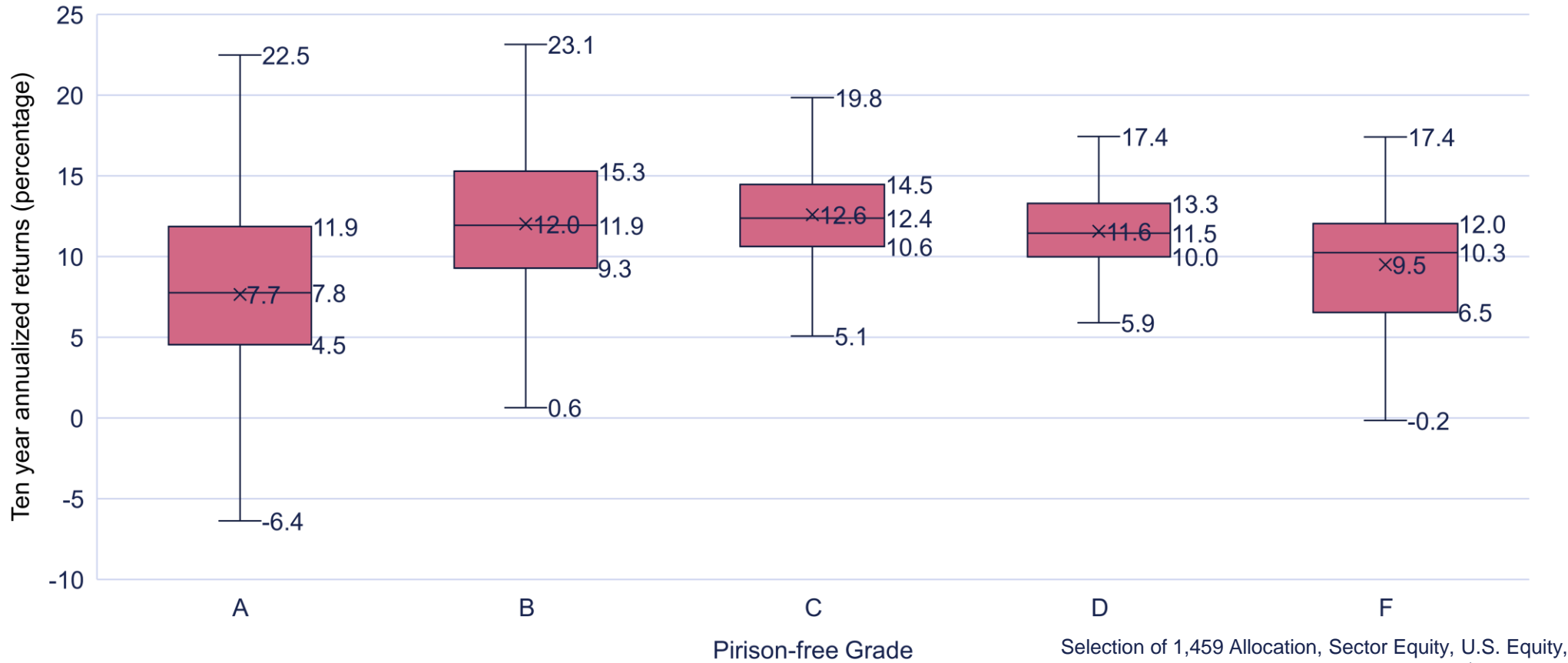


Weapons Free Funds screens for military arms manufacturers and services companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Prison-free Grade

Prison-free grade seems to have a modest bell curve effect on annualized returns

Performance of Funds by Prison-free Grade



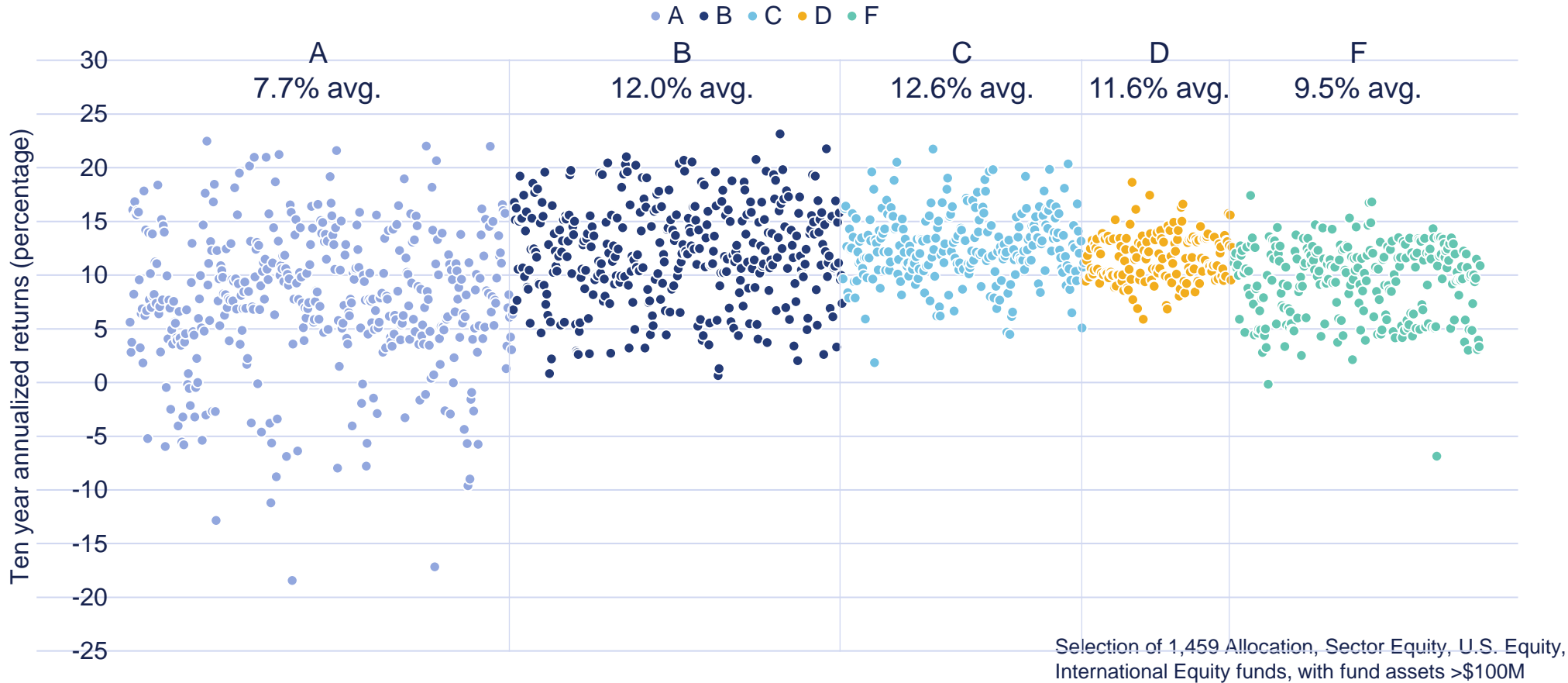
Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Prison-free Funds screens for companies involved in the prison industry (such as private for-profit prison operators and prison services providers), and companies involved in the militarization of borders and the policing of immigration. They assign a grade to companies based on corresponding share.

Performance of Funds by Prison-free Grade

Prison-free grade seems to have a modest bell curve effect on annualized returns

Performance of Funds by Prison-free Grade

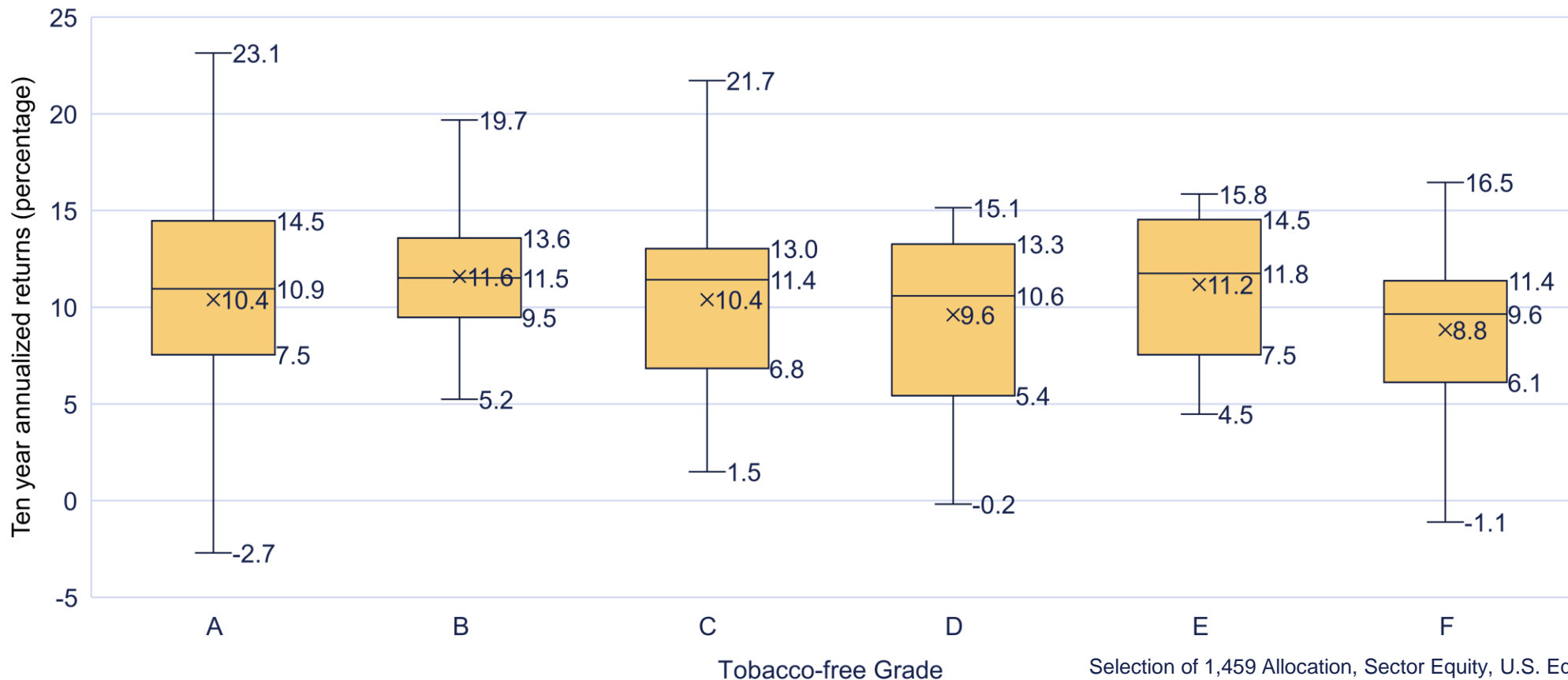


Prison-free Funds screens for companies involved in the prison industry (such as private for-profit prison operators and prison services providers), and companies involved in the militarization of borders and the policing of immigration. They assign a grade to companies based on corresponding share.

Performance of Funds by Tobacco-free Grade

Lower tobacco-free grade has a modest negative effect on annualized returns.

Performance of Funds by Tobacco-free Grade

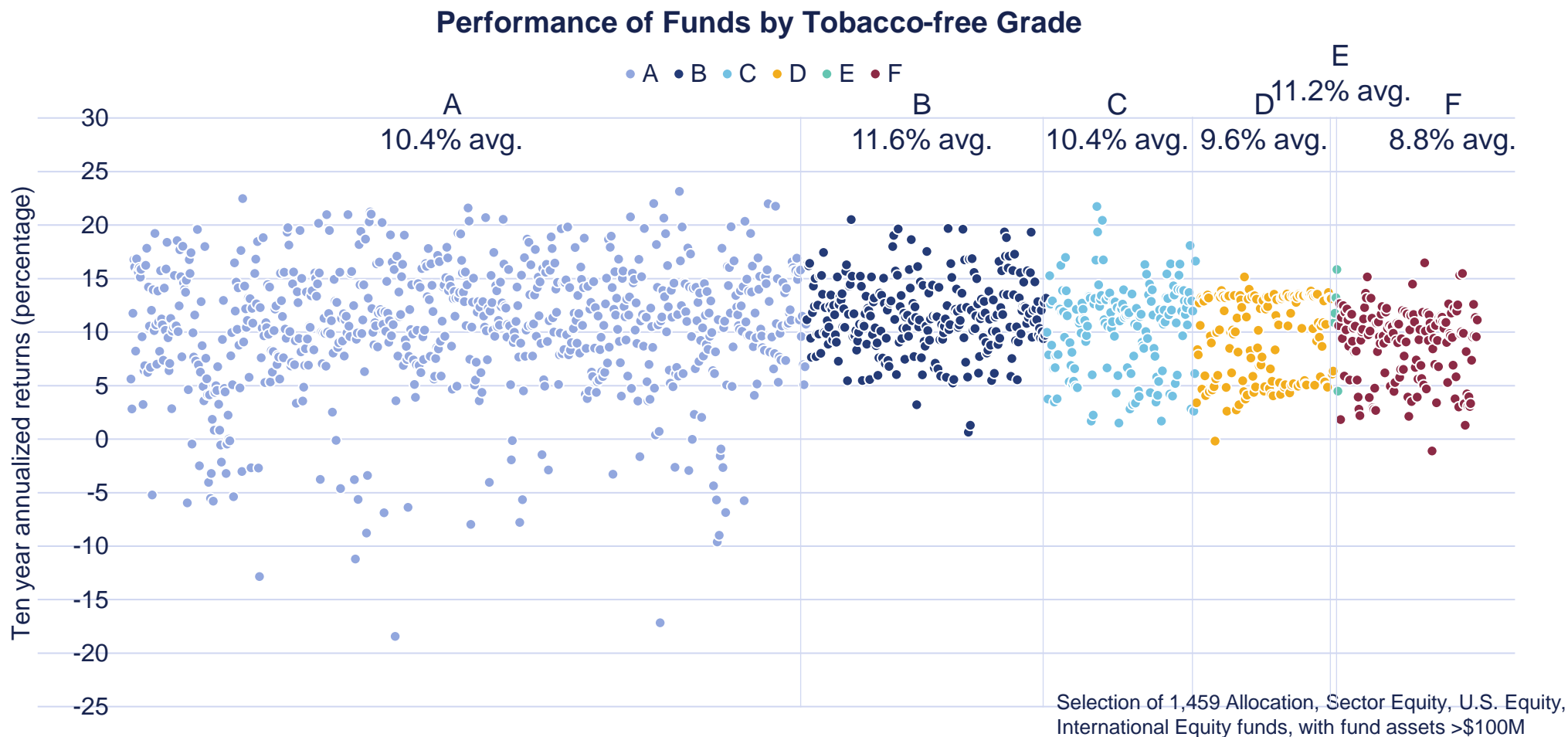


Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Tobacco-free Funds screens for tobacco and e-cigarette companies as well as tobacco-promoting entertainment companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Tobacco-free Grade

Lower tobacco-free grade has a modest negative effect on annualized returns.

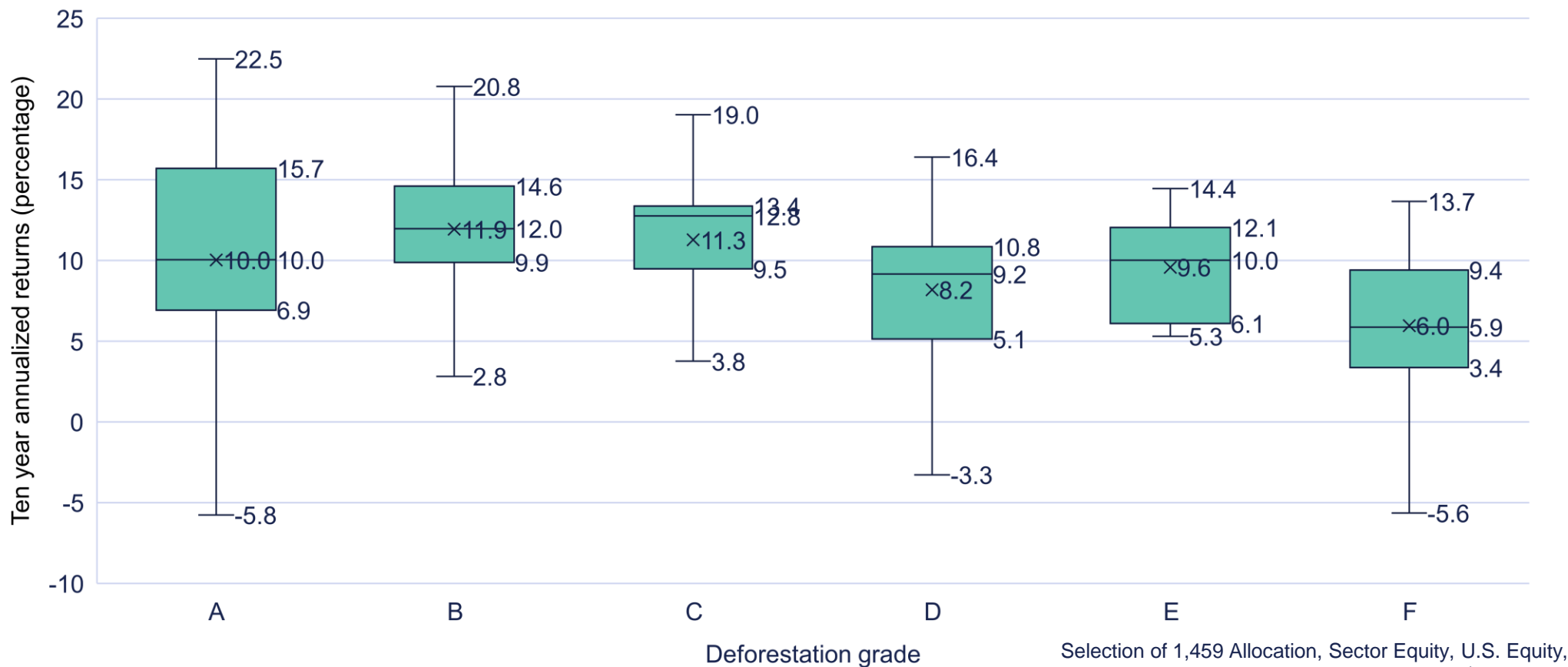


Tobacco-free Funds screens for tobacco and e-cigarette companies as well as tobacco-promoting entertainment companies and assigns a grade to companies based on their corresponding share.

Performance of Funds by Deforestation Grade

Mutual funds/ETFs with an A Deforestation grade had an average 10-year annualized return of 10% compared to 6% among funds with an F grade.

Performance of Funds by Deforestation Grade

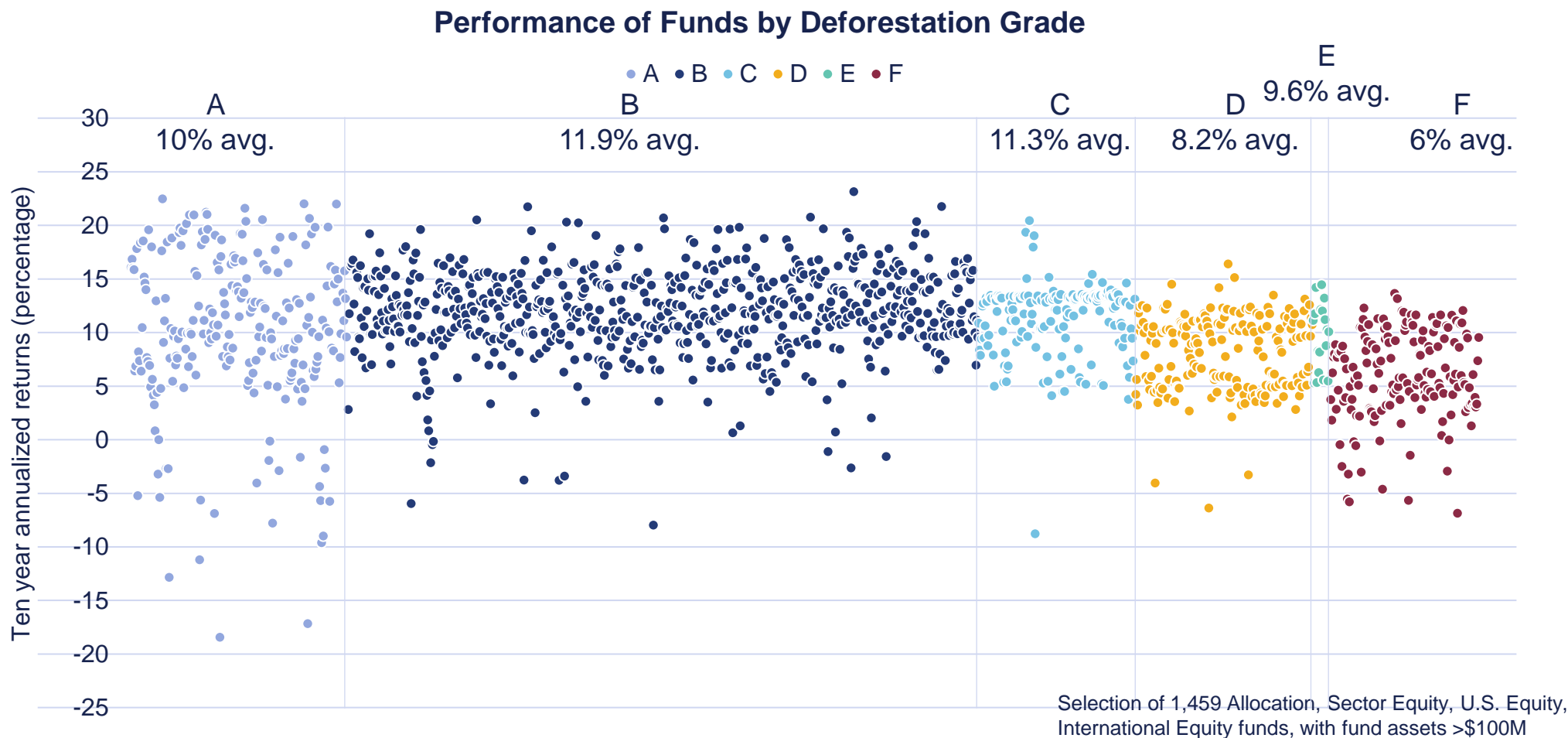


Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Deforestation Free Funds Screens for deforestation-risk agricultural commodity producers and traders, the banks who finance them, or the brands who use those commodities in their products. Based on whether a fund has direct stock investments in these companies, they assign one of six grades.

Performance of Funds by Deforestation Grade

Mutual funds/ETFs with an A Deforestation grade had an average 10-year annualized return of 10% compared to 6% among funds with an F grade.

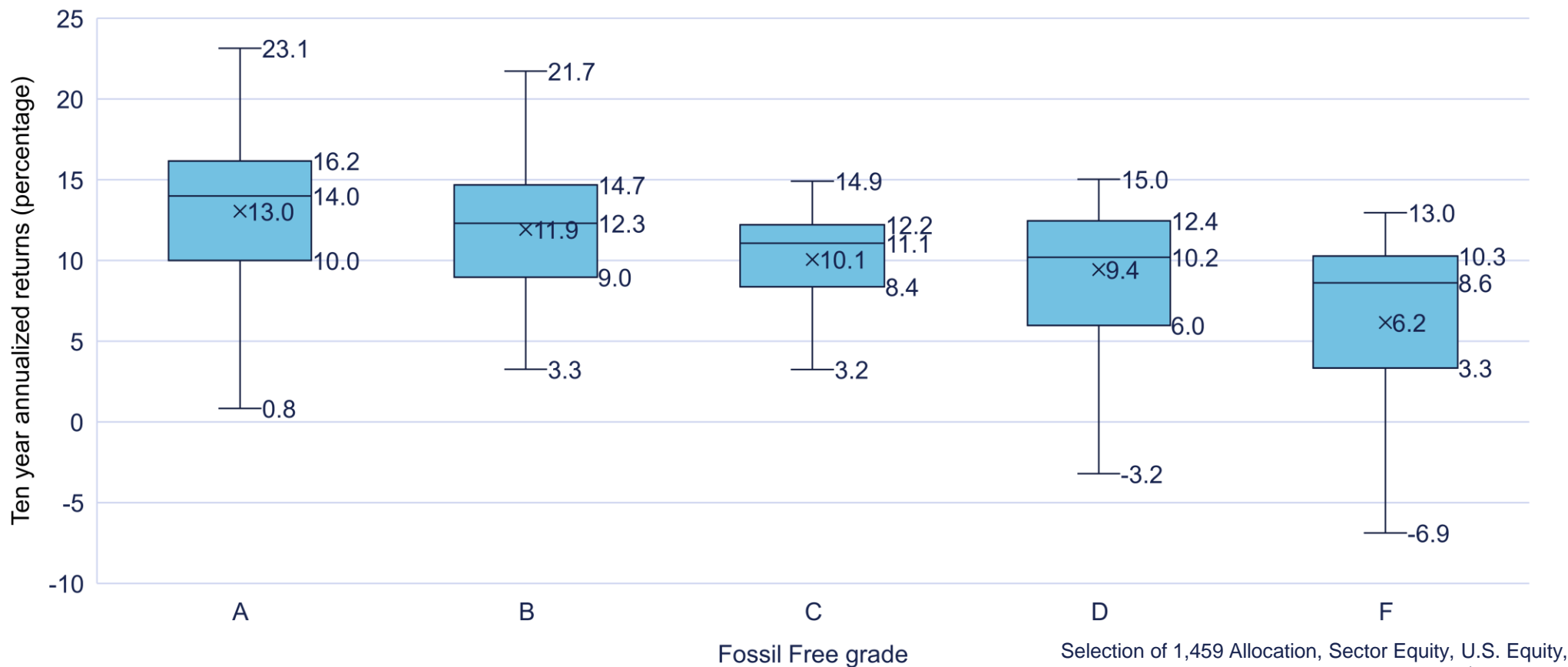


Deforestation Free Funds Screens for deforestation-risk agricultural commodity producers and traders, the banks who finance them, or the brands who use those commodities in their products. Based on whether a fund has direct stock investments in these companies, they assign one of six grades.

Performance of Funds by Fossil Fuel-free Grade

Mutual funds/ETFs with an A Fossil Free grade had an average 10-year annualized return of 13% compared to 6% among funds with an F grade.

Performance of Funds by Fossil Free Grade



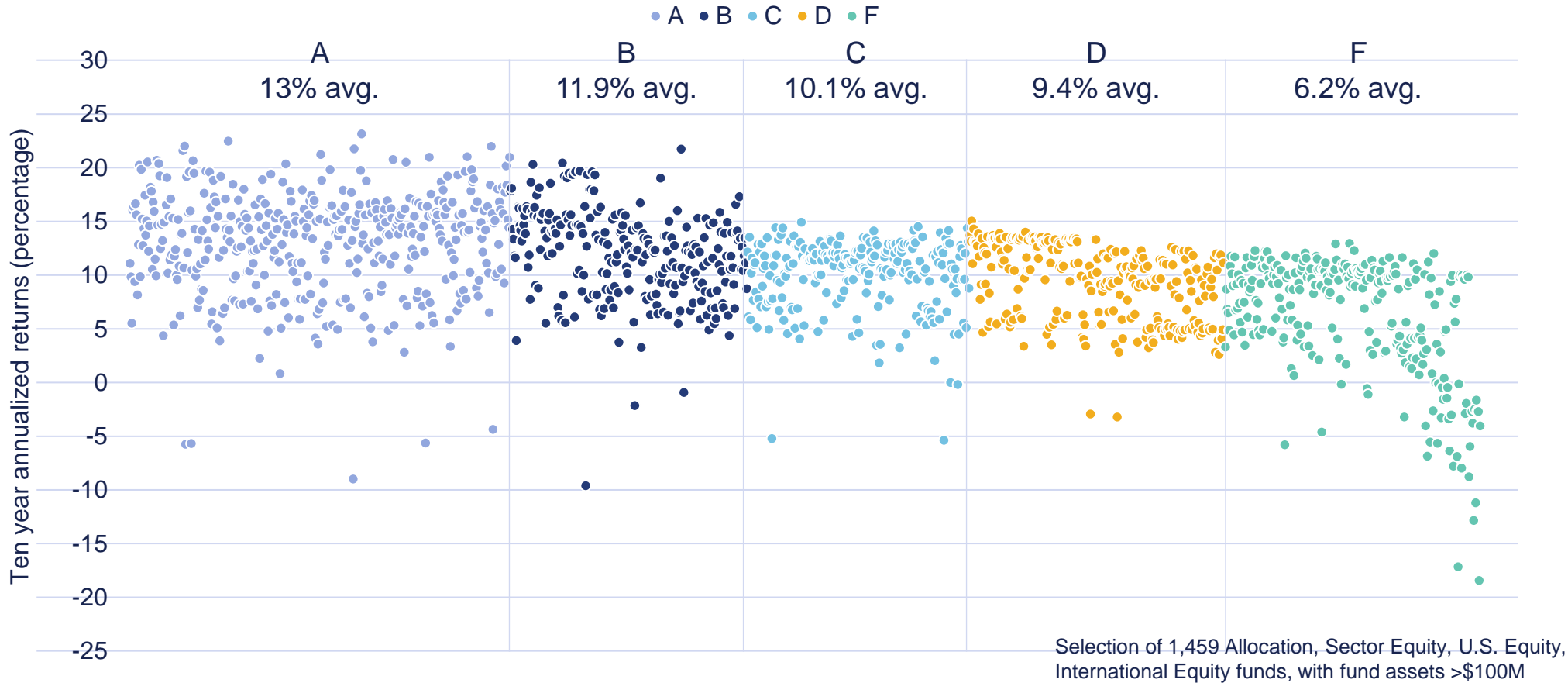
Selection of 1,459 Allocation, Sector Equity, U.S. Equity, International Equity funds, with fund assets >\$100M

Fossil Free grade calculated by Fossil Free Funds which analyzes the climate impact of thousands of U.S. mutual funds and ETFs and screens if the fund is invested in fossil fuel companies, or companies with high carbon footprints.

Performance of Funds by Fossil Free Grade

Mutual funds/ETFs with an A Fossil Free grade had an average 10-year annualized return of 13% compared to 6% among funds with an F grade.

Performance of Funds by Fossil Free Grade



Fossil Free grade calculated by Fossil Free Funds which analyzes the climate impact of thousands of U.S. mutual funds and ETFs and screens if the fund is invested in fossil fuel companies, or companies with high carbon footprints.

Conclusions

Investors and shareholders seem to be **rewarding companies that limit or eliminate their deforestation activities and fossil fuel dependency**, while not punishing or rewarding those who engage in other ESG causes:

1. **Investors appear to benefit over the long-term from limiting their exposure to deforestation-risk agricultural commodities.**
2. **Investors that have limited their fossil-fuel dependency have performed better than investors focused on fossil fuel-related activities.** Some portion of this difference in returns may be attributable to the long-term performance of energy commodities, however, so this finding may not hold in a bullish energy market.
3. **Participation in other ESG causes (gender equality, civilian firearms, prison and borders industry, military weapons, and tobacco), appears unlikely to impact returns.**



APPENDIX

Methodology

- For this study we utilized Morningstar 10-year annualized returns and As You Sow ESG Grades. Every mutual fund is given an As You SOW ESG Grade for various causes. We then compared returns across ESG grades.
- As outlined in the following slide, As You Sow ESG grades are applied to mutual funds based on associated ESG cause screeners on individual companies. For gender equality, a grade is also assigned to individual companies as well as mutual funds as a whole.
- 10-year annualized returns were taken from Morningstar financial data using month-end February 2021 and month-end February 2011 asset values. Only funds with net assets above \$100M were used, as well as only funds with inception dates before February 2011. Only funds with over 90% of assets graded by As You Sow were used.

Note: ESG Cause and Grade Definitions

The below table shows how ESG Causes are defined, and corresponding grades calculated.

ESG Cause Grade	ESG Causes						
	Fossil Free	Deforestation Free	Gender Equality	Gun Free	Prison Free	Weapon Free	Tobacco Free
	Cause Definition						
	Analyzes the climate impact of thousands of U.S. mutual funds and ETFs and screens if the fund is invested in fossil fuel companies, or companies with high carbon footprints.	Screens for deforestation-risk agricultural commodity producers and traders, the banks who finance them, or the brands who use those commodities in their products.	The Equileap Gender Equality Scorecard scores companies based on 19 criteria, including gender balance across the workforce, the gender pay gap, paid parental leave, and anti-sexual harassment policies.	Screens for civilian free-arm investments (retailers and manufacturer companies) companies.	Screens for companies involved in the prison industry (such as private for-profit prison operators and prison services providers), and companies involved in the militarization of borders and the policing of immigration.	Screens for military arms manufacturers and services companies.	Screens for tobacco and e-cigarette companies as well as tobacco-promoting entertainment companies.
Grade Definition							
A	Fund fossil fuel exposure is 0%	No holdings flagged for our deforestation screens	Gender Equality Fund group rank 1%-20% percentile	No holdings flagged for our civilian firearm screens.	None of the fund's stock holdings were flagged by the prison industrial complex screen.	No holdings flagged for our military weapon or civilian firearm screens.	No holdings flagged for our tobacco screens. Assigned a grade of A.
B	Fossil fuel exposure between 0% and 3%	Fund is invested in deforestation-risk banks and lenders and/or major consumer brands, but no holdings flagged for our deforestation-risk agricultural commodity producer/trader screen	Gender Equality Fund group rank 21%-40% percentile	Fund is invested in civilian firearm retailers, but no holdings flagged for our civilian firearm manufacturers screen.	Some of the fund's stock holdings were flagged by the prison industrial complex screen, but no higher risk or private prison operator companies were found.	Fund is invested in military weapons below the threshold of 1%; and/or invested in civilian firearm retailers.	Fund is invested in tobacco-promoting entertainment companies, but no holdings flagged for our tobacco producer screen.
C	Fossil fuel exposure between 3% and 5.5%	Fund is invested in deforestation-risk agricultural commodity producer/traders, below the threshold of 0.5%	Gender Equality Fund group rank 41%-60% percentile	Fund is invested in civilian firearm manufacturers, below the threshold of 0.1%.	Some of the fund's stock holdings were flagged by the prison industrial complex screen, and some higher risk companies were found, but the exposure to higher risk companies was below 1%, and no private prison operator companies were found.	Fund is invested in military weapons above the threshold of 1% and below 2%; and/or civilian firearm manufacturers, below the threshold of 0.1%.	Fund is invested in tobacco producers, below the threshold of 0.5%.
D	Fossil fuel exposure between 5.5% and 9%	Fund is invested in deforestation-risk agricultural commodity producer/traders, above the threshold of 0.5% and below 1.5%	Gender Equality Fund group rank 61%-80% percentile	Fund is invested in civilian firearm manufacturers, above the threshold of 0.1% and below 0.4%.	Some of the fund's stock holdings were flagged by the prison industrial complex screen, and some higher risk companies were found, but the exposure to higher risk companies was below 2%, and no private prison operator companies were found.	Fund is invested in military weapons above the threshold of 2% and below 3%; and/or civilian firearm manufacturers, above the threshold of 0.1% and below 0.4%.	Fund is invested in tobacco producers, above the threshold of 0.5% and below 1.2%.
F	Fossil fuel exposure between 9% and 100%	Fund is invested in deforestation-risk agricultural commodity producer/traders, above the threshold of 1.5%	Gender Equality Fund group rank 81%-100% percentile	Fund is invested in civilian firearm manufacturers, above the threshold of 0.4%.	Some of the fund's stock holdings were flagged by the prison industrial complex screen, and some higher risk companies were found, and the exposure to higher risk companies was above 2%, and/or private prison operator companies were found.	Fund is invested in military weapons above the threshold of 3%; and/or civilian firearm manufacturers above the threshold of 0.4%; or, fund is invested in cluster munitions/landmines manufacturers.	Fund is invested in tobacco producers, above the threshold of 1.2%.

Deforestation Free and Tobacco Free have "E" Grades which are being phased out.