CLIMATE INVESTMENT FUNDS

CTF-SCF/TFC.7/5/Rev.1
October 27, 2011

Joint Meeting of the CTF and SCF Trust Fund Committees
Washington, D.C.
November 3, 2011

Agenda Item 5

CIF TRUST FUNDS: PARTICIPATION IN A NEW INVESTMENT TRANCHE

Proposed Decision by the Joint CTF and SCF Trust Fund Committees

The joint meeting of the CTF and SCF Trust Fund Committees reviewed the document, *CIF Trust Funds: Participation in a new Investment Tranche* (document CTF-SCF/TFC.7/5/Rev.1) and approves the participation of the CTF and SCF Trust Funds for up to one quarter of aggregate liquidity held by the CTF and SCF Trust Funds in a new investment tranche. The objective of the new tranche, which would have a five year investment horizon and would include a limited allocation to public developed market equities, is to increase portfolio diversification.

I. EXECUTIVE SUMMARY

1. Some FIFs (Financial Intermediary Funds) and trust funds established at the World Bank have liquidity levels that are significant in size and stable over a long period of time (i.e., five years). To provide more options to these clients, the World Bank Management has developed a new investment strategy available to the World Bank's Financial Intermediary Funds (FIFs) and trust fund portfolio. The strategy was shared with the World Bank Board and discussed and supported by its Audit Committee.

2. In support of the new investment strategy, analysis was performed on the historical risk-reward tradeoffs of various asset classes and on the risk-return profile of various asset mixes (see Annexes 1 and 2). The analysis demonstrates that a diversified portfolio mostly outperforms a pure fixed income portfolio. In addition, a more diversified portfolio, *including limited allocations of public developed market equities*, could enhance investment returns over the medium and longer term, although variability of reported income may increase over shorter periods.

3. Currently, there are three sub-portfolios (called tranches) where trust fund liquid assets can be invested. Tranche 0 comprises bank deposits and investments in money market instruments with an investment horizon of less than three months. Tranche 1 is a short horizon portfolio which increases security selection and has an investment horizon of up to one year. Tranche 2 has a longer horizon portfolio which adds more instruments and has an investment horizon of up to three years.

4. In light of current market conditions, and to provide more diversity of investment choices, a new liquidity tranche (Tranche 4) is being offered to eligible trust funds. Tranche 4 would feature a five-year investment horizon with a capital preservation constraint over the same horizon and include a limited allocation of equities. It would be managed to a very conservative risk tolerance level consistent with maintaining the probability of negative return to a near negligible level over a five-year horizon (no more than 1%).

5. The eligibility requirements for participation by a trust fund in Tranche 4 include (i) participation in Tranche 2; and (ii) the ability to maintain the allocated amount to Tranche 4 for at least five years. Eligibility for participation in Tranche 4 will be reviewed annually, in line with the investment strategy review process currently in place.

6. All FIF and trust fund investments at the World Bank are subject to the General Investment Authorizations of IBRD and IDA, which authorize IBRD and IDA to enter into a specific set of market transactions, both for their own portfolios and for funds managed on behalf of others (including FIF and trust funds). Engaging in investment transactions for FIF and trust funds beyond those expressly authorized in the IBRD and IDA General Investment Authorizations, including investments in public developed market equities, is allowed upon explicit instructions from donors or governing bodies of FIFs and trust funds to IBRD and/or IDA.

7. The investment objectives for the liquid funds of the CIF Trust Funds are (i) maintaining adequate liquidity to meet foreseeable cash flow needs, (ii) preserving capital and (iii) optimizing investment returns subject to the objective to preserve capital. The current liquidity balance of the CIF Trust Funds totals approximately USD 2.7 billion, of which USD 1.3 billion is already committed to the MDBs. The balance is expected to be committed in the next two to three-year period. These Trustee commitments to MDBs are expected to be transferred to MDBs over a five to seven year period, which corresponds to the expected MDB disbursement profile of CIF investment projects and is comparable to the disbursement profile of the MDB's own-funded investment loans in infrastructure.

8. Currently the liquid assets of the CIF Trust Funds are invested across the three existing investment Tranches. To maximize returns for the CIF Trust Funds, about sixty percent of the total liquid assets are currently invested in Tranche 2, which has an investment horizon of up to three years. The remaining liquid assets are invested in Tranches 0 and 1.

9. The CTF/SCF Joint Trust Fund Committee may want to consider participation in Tranche 4. The diversification benefits to be gained via Tranche 4 may be especially relevant given the nature of the CIF Trust Fund disbursement profile of its investments. The CIF Trust Funds meet the eligibility requirements for participation in Tranche 4 (i.e., (i) participation in Tranche 2; (ii) minimum projected fund balance of USD 200 million over five years; and (iii) the ability to maintain the allocated amount to Tranche 4 for at least five years). However, as noted in paragraph 6, the CTF/SCF Joint Trust Fund Committee is required to approve participation of the CIF Trust Funds in Tranche 4.

II. BACKGROUND

10. As Trustee for Financial Intermediary Funds ("FIFs") and for trust funds administered by IBRD or IDA, the World Bank commingles funds pending disbursement in an investment portfolio of liquid assets (the "TF Pool"). The assets in the TF Pool are managed in accordance with the investment strategy established by the World Bank, and pursuant to IBRD's and IDA's General Investment Authorizations.[1] The investment objectives of the investment Strategy for the TF Pool are to (i) maintain adequate liquidity to meet foreseeable cash flow needs, (ii) preserve capital and (iii) optimize investment returns subject to the objective to preserve capital.

11. The TF Pool is made up of three model portfolios (called tranches): a cash portfolio (Tranche 0) which comprises bank deposits and investments in money market instruments with an investment horizon of less than 3 months; a short horizon portfolio (Tranche 1) which increases security selection and has an investment horizon of up to one year; and a longer horizon portfolio (Tranche 2) which adds more instruments and has an investment horizon of up to three years. The TF Pool is actively managed so that the probability of incurring negative returns in Tranches 1 and 2 is no more than 1% over the

[1] General Investment Authorization for IBRD (Resolution No. 97-1, adopted on April 18, 1997); General Investment Authority for IDA (Resolution No. 2001-1, adopted on January 23, 2001).

applicable investment horizon. These model portfolios cater to the risk appetite of participating Trust Funds, allowing investment returns to be optimized across different investment horizons.

12. Over long periods of time, returns for the longer horizon (e.g. Tranche 2) are expected to outperform those of the shorter horizon tranches (e.g. Tranches 0 and 1) due to the higher risk tolerance and broader range of instruments. For example, over the past five years, a trust fund which initially invested USD 100 million in Tranche 0 would have seen a compound annual growth rate[2] of 2.7%, which would have translated into a cumulative return of approximately USD 14 million. The same amount invested in Tranche 1 and 2 respectively would have seen compounded annual growth of 3.7% and 5.7%. This would have meant *incremental* returns of approximately USD 6 million and USD 13.5 million, respectively. over and above that of Tranche 0 for the same USD 100 million initial investment.

III. CURRENT MARKET SITUATION

13. The current market environment poses challenges for investors in conservative fixed income portfolios. The re-emergence of sovereign debt worries and spillover into the banking sector has resulted in investor risk-aversion and a flight to quality assets. High grade government bonds in the United States and Europe have been in high demand, resulting in historically low yields on these instruments. These low yield levels are challenging institutional investors to position fixed-income portfolios against the risk of rising interest rates and resulting adverse re-pricing of fixed-coupon bonds. With interest rates near historical lows and more room for yield increases rather than decreases (all else being equal), total fixed income returns are likely to be low relative to historical averages.

14. Low absolute levels of yield not only imply lower coupon income (due to lower reinvestment rates) but also a smaller cushion against price losses when interest rates increase. Figure 1 below shows the level of interest rate rises that would be required to fully offset the coupon income on a US Treasury 1-3 year bond index with a duration of approximately two years (which is the maturity range that the TF Pool bonds are invested in). The graph illustrates two important facts: (1) the rise in bond yields currently needed to offset coupon income (c.20bp) is at its lowest level in over 25 years; (2) in 2006/7, the required rise in rates was close to 3% (300bp) and the outlook was for falling rates given the financial crisis, therefore the probability of negative investment returns was lower relative to now.

[2] Compound annual growth represents the smoothed annualized return of an investment over a given time period.

Figure 1: Rise in yields needed to offset coupon income on UST 1-3 year index

15. Current twelve-month forward rates (which approximate to broad market expectations for prevailing interest rates in one year) suggest that a Treasury bond index with a duration of around 1 years (which is similar to the duration of the CIF Trust Funds) can expect 0% returns with a return range of +2% to -3%. Clearly, the forward rate scenario may not be realized and returns may be higher or lower than suggested. It is important to note, however, that this expected scenario is the market view of prospective investment returns, and the corresponding expected range of returns is lower than the near 4% annual returns experienced between 2006 and 2010.

IV. INVESTMENT STRATEGY REVIEW

16. Some FIFs and trust funds established at the World Bank have liquidity levels that are significant in size and stable over a long period of time (i.e., five years). To provide more options to these clients, World Bank Management has developed a new model portfolio as part of the recent review of the TF Investment Strategy which was shared with the World Bank Board and discussed and supported by its Audit Committee. This new Strategy allows the World Bank to offer a broader range of asset classes to eligible FIFs and trust funds, <u>adding a limited amount of public developed-market equities and several other fixed income instruments</u>, such as Treasury Inflation Protected Securities (TIPS) and emerging market bonds, to the current suite of eligible instruments. These additions are expected to confer stronger diversification benefits to the liquid asset portfolios.

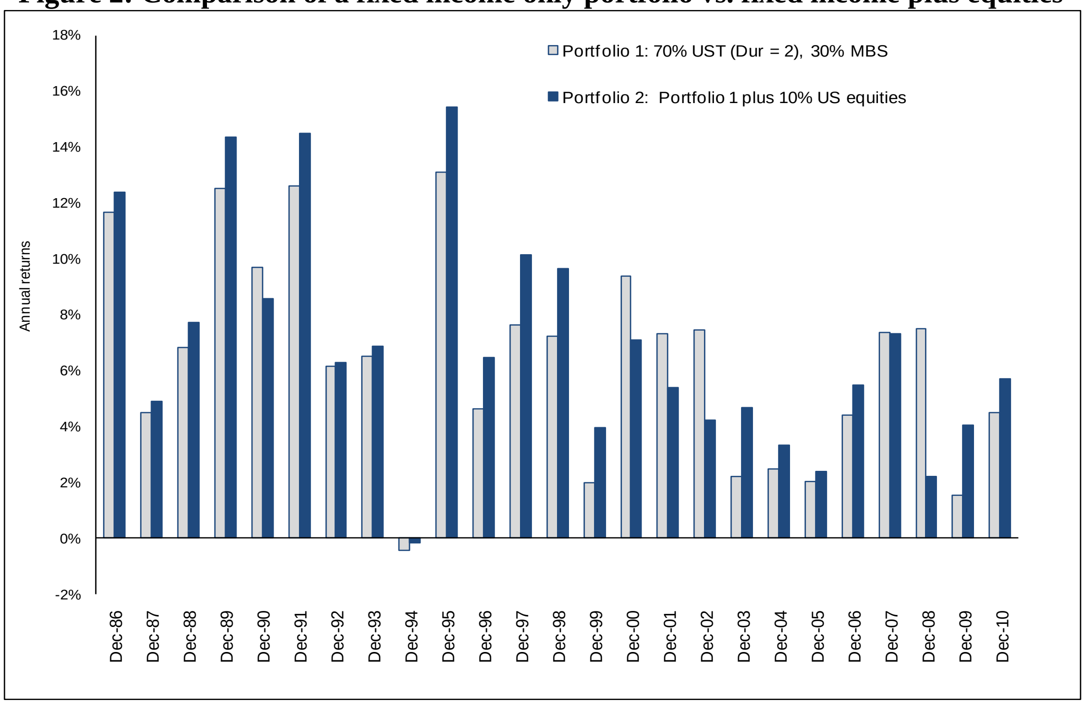
17. The new model portfolio (Tranche 4) would provide eligible FIFs and trust funds an opportunity to diversify a portion of their investments by investing in a limited allocation to equities. Specifically, participation in Tranche 4 would be offered to funds

meeting the following eligibility requirements: (i) participation in Tranche 2; (ii) the ability to maintain the allocated amount to a new tranche for at least five years. Eligibility for participation in the new tranche will be reviewed annually, in line with the investment strategy review process currently in place.

18. Tranche 4 would feature a five year investment horizon (compared to the current maximum investment horizon of three years under Tranche 2) managed to a similar risk tolerance as the existing tranches over the new investment horizon and includes a limited allocation to equities. In support of the new Trust Fund Pool Investment strategy, analysis was performed on the historical risk-reward tradeoffs of various asset classes and on the risk-return profile of various asset mixes. Annexes 1 and 2 present this analysis. The analysis demonstrates that a diversified portfolio mostly outperforms a pure fixed income portfolio.

19. A more diversified portfolio, including limited allocations of public equities, could enhance investment returns over the medium and longer term. Limited allocations of equities have shown to improve the performance of fixed income portfolios over the longer term due to low - and often negative - correlation between the two asset classes. Figure 2 below shows that, in general, a portfolio that includes a small allocation to equities has outperformed a fixed-income only portfolio in 20 out of the last 25 calendar years.

Figure 2: Comparison of a fixed income only portfolio vs. fixed income plus equities



20. The total exposure to equity risk for the CIF Trust Funds will depend on the amount allocated for investments in Tranche 4. The equity allocation share within Tranche 4 will likely be less than 20% at any time so as to conform to the stipulated risk tolerance over the five-year horizon. Hence, if, for example, allocation of liquidity to be

investment in Tranche 4 is set up to account for no more than one quarter of aggregate liquidity held by any single fund, the total exposure to equity risk for individual eligible funds would be less than 5% of a fund's total assets. This is a conservative overall exposure level to equity risk for funds participating in Tranche 4.

21. The eligibility requirements for participation in Tranche 4 ensure that any fund participant must have readily available cash flow projections demonstrating that the likelihood of needing to draw on the balances in Tranche 4 at some point in the five-year horizon is as close to zero as practically possible. In addition, the participating FIF or trust funds should have sound financial management framework that cope with the likely increased investment income volatility over the course of the investment horizon. That is to say, at some point over the five-year horizon, one might expect higher levels of investment gains and losses in the new tranche; however the return after five years is expected to be higher than a similar, fixed income only, tranche in most cases.

22. All Trust Fund Pool investments at the World Bank are subject to the General Investment Authorizations of IBRD and IDA, which authorize IBRD and IDA to enter into a specific set of market transactions, both for their own portfolios and for funds managed on behalf of others (including trust funds). Engaging in investment transactions for FIFs or trust funds beyond those expressly authorized in the IBRD and IDA General Investment Authorizations, including investments in public developed market equities, is allowed upon explicit instructions from donors or governing bodies of FIFs or trust funds to IBRD and/or IDA.

V. CTF AND SCF TRUST FUNDS

23. The total amount of CIF Trust Funds liquid assets total USD 2.7 billion (of which CTF liquid assets total USD 2 billion and SCF liquid assets total USD 0.7 billion). These assets are invested across all three investment tranches. To maximize returns, sixty percent of these liquid assets are in Tranche 2. There is a prudent level of liquidity in CIF Trust Fund funds in Tranches 0 and 1. These balances are held at a level to ensure the Trustee can meet disbursement needs of the MDBs over a one year period.

24. Of the total amount of CIF Trust Fund liquid assets, USD 1.3 billion is committed by the Trustee to the MDBs. The balance is expected to be committed in the next two to three years, as the CIF Trust Fund committees approve project financing to the MDBs. Once funding is approved by the respective CIF Trust Funds committees and subsequently committed by the Trustee, funds are expected to be transferred to the MDBs within five to seven years. This time lag between commitments and transfers to MDBs results from the nature of the CIF investment projects, which have disbursement profiles of five to eight years, similar to the disbursement profile of the MDBs own loans in the infrastructure sector.

25. The CIF Trust Funds have been in the Trust Fund Pool only since 2009, and therefore there has not been as long a performance history to demonstrate benefits of the

participation in the longer investment horizon tranche. However, Table 1 shows a snapshot of the excess returns that CIF Trust Funds have earned thus far due to its Tranche 2 liquid asset investments, over those trust funds only investing in Tranches 0 and 1. In practical terms, this means that the CTF Trust Fund, which had an average fund balance of USD 1 billion since inception, has earned some USD 3.2 million over and above a more conservatively invested portfolio. Similarly, the SCF Trust Fund, assuming an average fund balance of USD 360 million, has earned an additional USD 0.6 million. It should be noted that the longer horizon investment tranche would be expected to generate higher returns over the investment horizon (e.g. 3 years) but greater volatility in returns over shorter horizons would also be expected.

Table 1:
Investment Returns of CIF Trust Funds vs. Trust Funds Invested in Tranches 0 & 1

	CTF	SCF	T0 & 1 Funds
Since TF inception	2.62%	2.46%	2.30%
- excess returns	0.32%	0.16%	n/a

26. Taking advantage of the longer disbursement horizon of CIF Trust Fund investment projects as noted earlier, and in view of the analysis performed in Annexes 1 and 2 (showing that a diversified portfolio mostly outperforms a pure fixed income portfolio), the CIF Trust Funds could benefit from investing a portion of their liquid assets in Tranche 4.

27. CTF and SCF Trust Funds meet the eligibility requirements for participation in Tranche 4: both already participate in Tranche 2; both have financial forecasts for five-year or longer time horizon (in quarterly increments; and both have the ability to maintain the allocated amount to Tranche 4 for at least five years.

28. Participation in Tranche 4, however, requires explicit instructions be provided to the World Bank by the CTF/SCF Joint Trust Fund Committee. If participation in Tranche 4 is approved by the CTF/SCF Joint Trust Fund Committee, the Trustee would allocate an appropriate amount of CIF Trust Fund funds to invest in Tranche 4, i.e., amounts not expected to be needed for disbursement to MDBs until five years.

29. On a quarterly basis, the World Bank reviews the balances in all Trust Fund Pool investment Tranches against projected cash flows across each FIF and trust fund. If needed, the amounts in each Tranche are rebalanced and adjusted to ensure appropriate matching of balances and projected cash flow needs. The Trustee reports periodically to the CTF/SCF Joint Trust Fund Committee on investment performance and level of allocations to each Tranche through its Trustee Report.

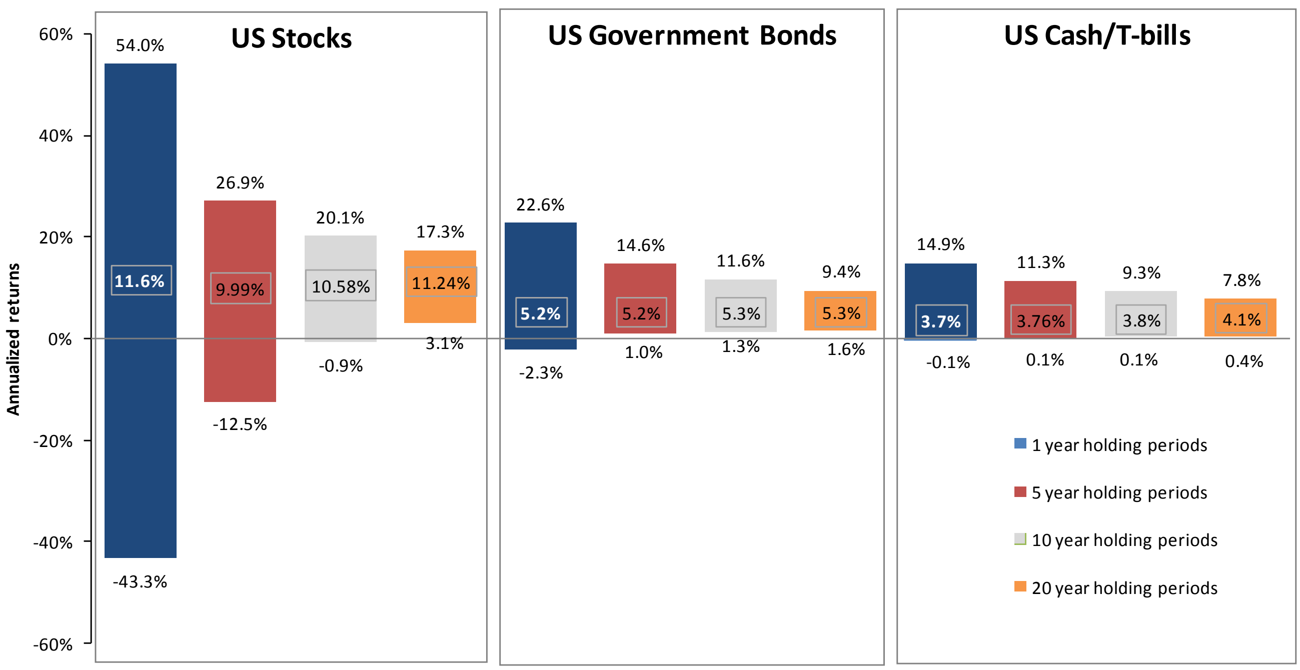
30. If the CTF/SCF Joint Trust Fund Committee approves participation of the CIF Trust Funds in Tranche 4, to ensure maximum benefits of the Tranche 4 it is expected that the amount invested in this Tranche would have to remain fairly stable over at least the five-year horizon. It is also worth repeating that if, for example, allocation to

Tranche 4 is set to account for no more than one quarter of aggregate liquidity held by the CIF Trust Funds, the total exposure to equity risk for the CIF Trust Funds would be less than 5% of the liquid assets of the CIF Trust Funds.

Annex 1: Historical Risk-Return Tradeoffs of Various Asset Classes

1. This annex presents a brief summary of the historical risk-reward tradeoffs associated with investing in various types of US Dollar denominated assets. Figure 3 illustrates the broad asset class categories of stocks, bonds and cash/bills, and compares the range of returns over various holding periods. Based on a long history of investment returns, cash and government bonds (1-5 year maturity) have seen relatively stable average returns over various holding periods. On the other hand, stocks have shown the highest average returns, relative to bonds or cash, albeit with much higher variability in returns which declines with longer holding periods. This is consistent with rationale for a longer investment horizon typical to equity investors. The analysis shows that higher risk-adjusted returns may be achieved over longer horizons; however, income volatility over shorter periods is considerably higher and has to be considered.

Figure 3: Historical Range of Returns for US Stocks, Government Bonds



Note: Historical period from 1926-2010.
Source: Ibbotson Associates until 1978 only, followed by Russell 3000, Merrill Lynch UST 1-5 Index, Merrill Lynch US Treasury Bills 0-3 Index, Bloomberg.

2. The asset classes shown in Figure 4 span a broader range of fixed income assets as well as equities, covering a more recent historical period starting from 1989. As these figures provide illustrative returns for many different asset classes, comparing them would require adjusting for duration differences. The table shows minimum and maximum returns over 1, 3 and 5 year horizons, as well as the frequency of negative returns for those holding periods. All asset classes considered have experienced negative returns over a 1 year horizon, with the exception of cash. Over longer horizons, however, only corporate bonds and equities have shown negative returns over a 3 year horizon. During this historical period, the relatively low outperformance of equities can be attributed to the ‘equity bubble burst’ in early 2000 as well as the latest global financial crisis in 2008. It is worth noting that looking at the risk and return profile of individual asset classes is only one reference point, and that it is important to assess the benefits of including these asset classes in a portfolio context. In addition, for the purposes of setting an asset allocation and investment strategy, forward looking measures of projected return and risks also need to be taken into account.

Figure 4: Performance of US Fixed Income and Equity Markets (1989-2011)

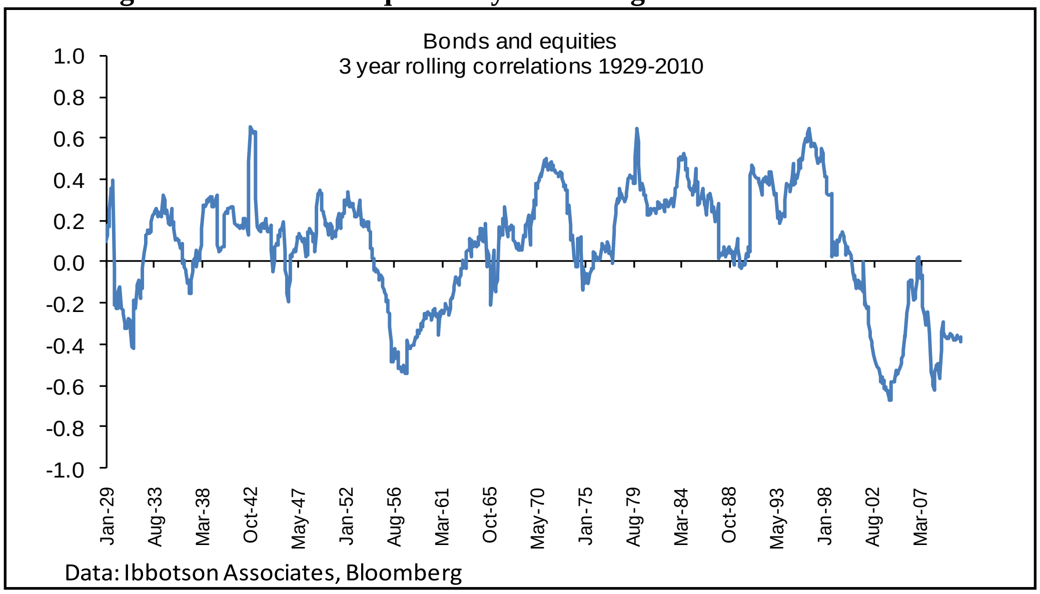
	1 Month Libor	Interm Govt Bonds	Corporate	G7 Hedged	US Stocks	TIPS 1-10	US MBS
Average Return	4.05%	7.21%	7.43%	5.99%	7.78%	6.20%	6.83%
Volatility	0.63%	5.70%	5.39%	3.27%	15.38%	4.65%	3.05%
1 year Min Return	0.26%	-6.02%	-14.32%	-3.04%	-44.85%	-6.35%	-1.61%
1 year Max Return	8.56%	21.52%	30.79%	16.62%	52.73%	16.64%	16.91%
1 year Freq Neg Return	0.00%	10.29%	10.29%	7.00%	24.28%	7.01%	2.88%
3 Year Min Return	0.90%	0.44%	-1.92%	1.36%	-14.36%	2.70%	2.97%
3 Year Max Return	6.50%	17.03%	17.36%	15.84%	38.14%	13.63%	14.31%
3 Year Freq Neg return	0.00%	0.00%	0.91%	0.00%	28.31%	0.00%	0.00%
5 Year Min Return	3.59%	5.98%	2.59%	3.86%	-1.99%	5.18%	5.77%
5 Year Max Return	8.18%	16.34%	17.34%	15.22%	44.00%	13.06%	14.15%
5 Year Freq Neg return	0.00%	0.00%	0.00%	0.00%	15.30%	0.00%	0.00%

Note: TIPS returns are actual from 1997. Return figures are not adjusted for duration differences between the different indices.
Source: Bloomberg, Merrill Lynch Indices, Barclays Capital.

Annex 2: Risk-Return Profile of Various Asset Mixes

1. This Annex illustrates the potential diversification benefits of different asset mixes for a portfolio, based on historical analysis. The premise behind portfolio diversification is not to "keep all eggs in one basket" and spread out the sources of risk and return. Equities have shown to improve the performance of fixed income portfolios over the longer term due to the low and often negative correlation between the two asset classes (see Figure 5), especially as performance of the two asset classes will vary in different stages of the economic cycle.

Figure 5: Bonds and Equities 3-year Rolling Correlations 1929-2010

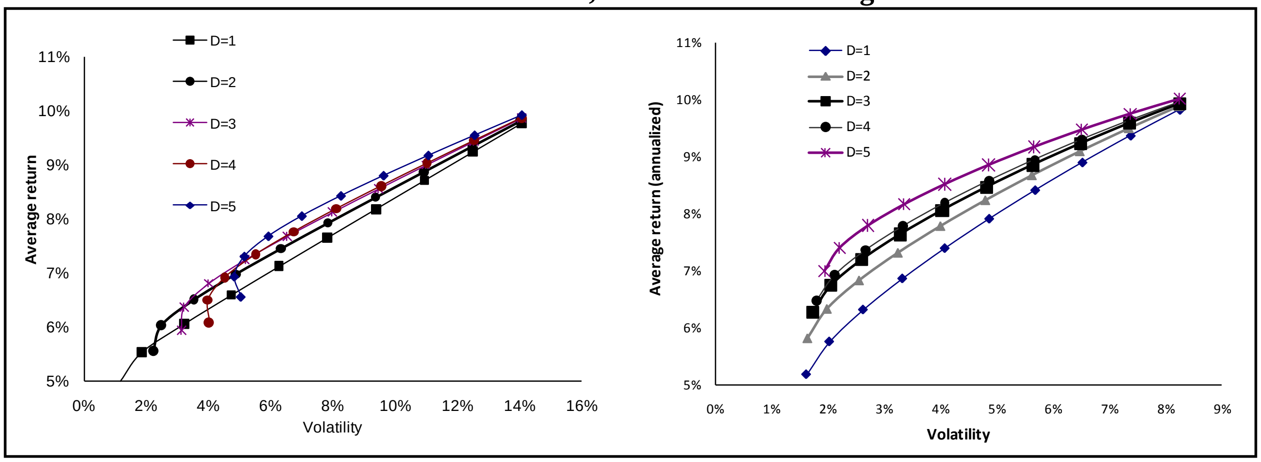


2. The illustrations in Figure 6 show various portfolios with combinations of equities (in 10% increments) and fixed income portfolios of different durations. The addition of up to 20% equities to an all fixed income portfolio has produced slightly higher average returns for a given level of risk. In addition, fixed income assets of longer duration can bear a higher allocation in equities given the same risk constraints. It is interesting to note that the historical frequency of negative annualized returns over a 5 year holding period has remained relatively low with equity allocations less than 40%. In addition, the worst case annualized return over a 5 year horizon improves with equities allocations up to 20%.

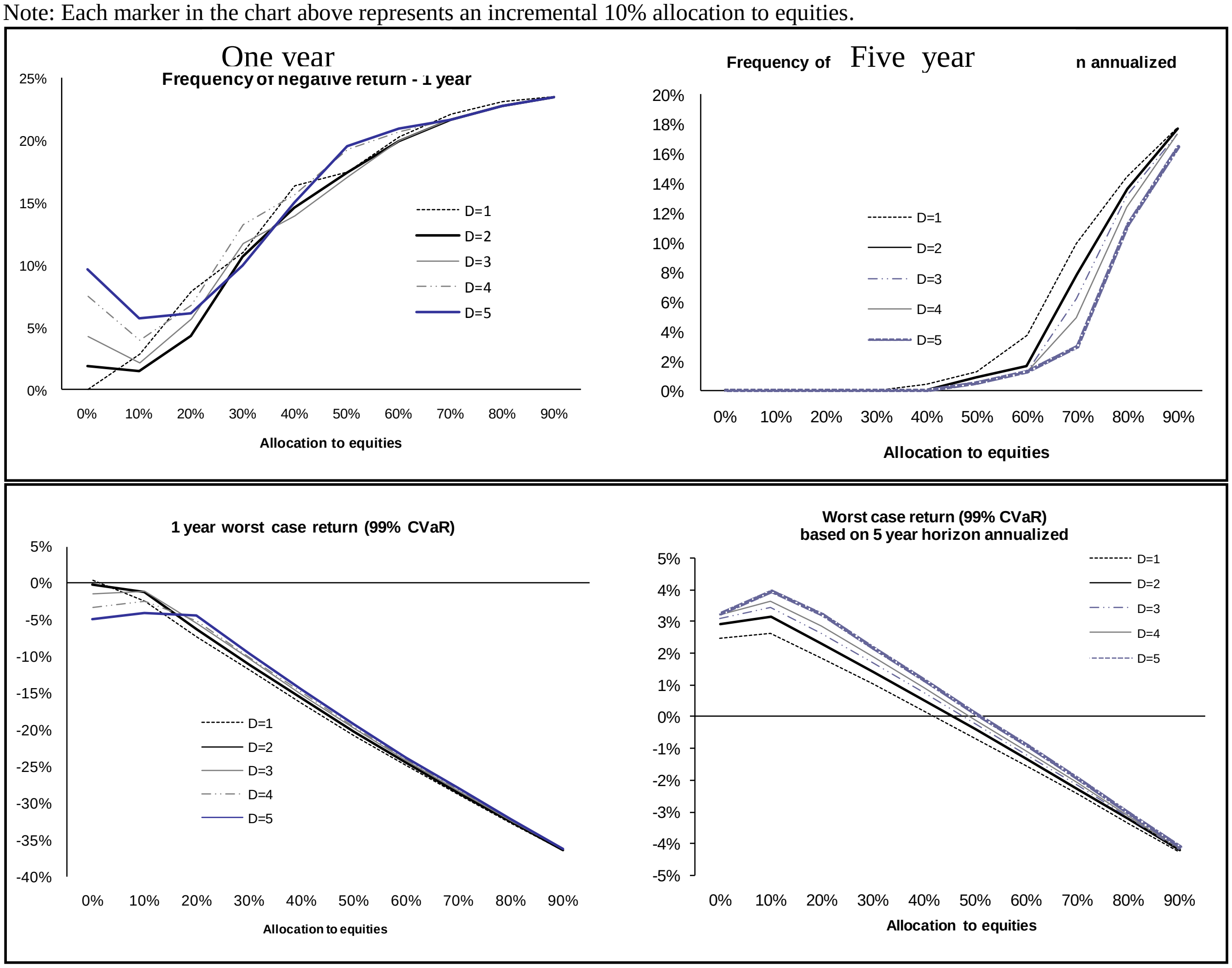
3. As previously mentioned, setting an asset allocation and investment strategy needs to be guided by forward looking measures of projected return and risks. It is important to note that forward looking projections are based on certain assumptions. For example, estimates of the US equity risk premium from academics and practitioners vary widely, from 0% to 6% over 10 year periods. Under the scenario that yield curves remain unchanged, an addition of 10% of US equities could see additional incremental returns of approximately 0.4% p.a. over 5 years, compared to a pure fixed income portfolio with a

3-year duration, assuming a 3% equity risk premium over medium term US Treasuries. It is important to note that actual returns will vary with market conditions.

Figure 6: Historical Performance of a Combination of US Stocks With Fixed Income Portfolios of Different Durations, over Various Holding Periods

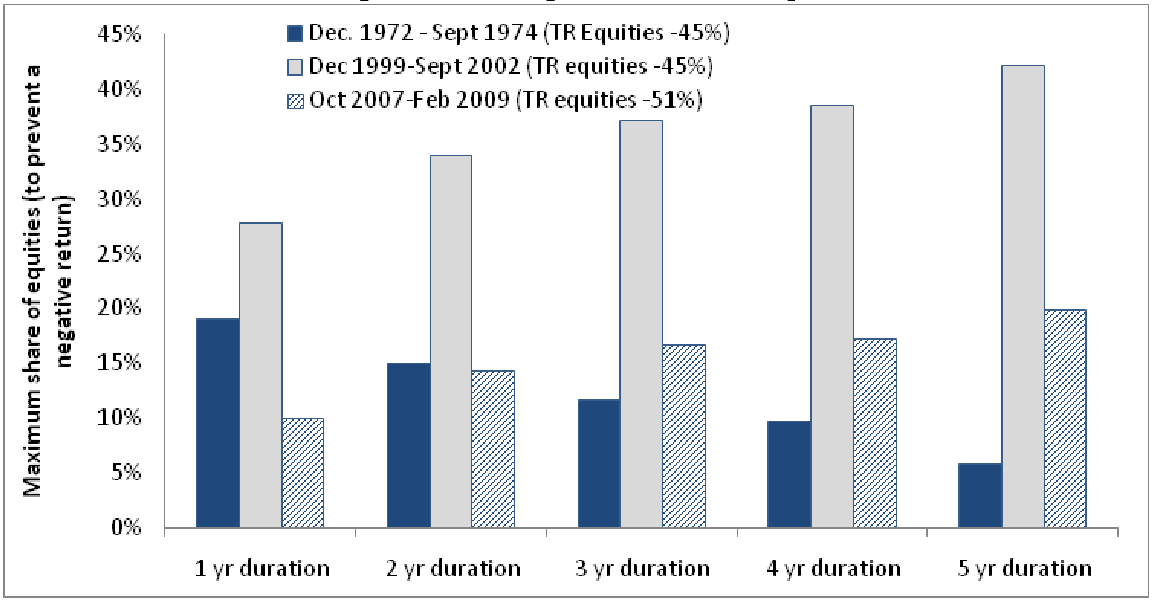


Note: Each marker in the chart above represents an incremental 10% allocation to equities.



4. Figure 7 is based on historical information for a portfolio of US equities and US Treasury bonds of varying durations. The chart shows the maximum allocation to equities that would have resulted in a non-negative (close to zero) overall portfolio return at times when there were considerable declines in US equities returns. The results show that in most cases, the maximum allocation to US equities was above 10% for short duration US Treasury portfolios (approximately 3 years or less).

Figure 7: Maximum Share of US Equities that Would Have Resulted in a Non-negative Portfolio Return During Periods of High Drawdown in Equities



Note: Based on non-annualized returns for periods of more than one year.
Source data: Merrill Lynch US Treasury Bond Indices, MSCI US Equities.

5. Figure 8 shows the calendar year returns for an all fixed income portfolio (Portfolio 1) with an allocation similar to that of Tranche 2 of the TFUND portfolio (70% US Treasuries and 30% US MBS), and for a comparable portfolio with an incremental 10% allocation in US equities (Portfolio 2). Note that with this allocation, Portfolio 2 which includes equities did not experience more than one calendar year of loss over the past 25 years. However, there were several periods where Portfolio 2 underperformed the all fixed income portfolio (Portfolio 1).

Figure 8: Annual Return of a Portfolio with 10% US Equities and 90% UST 1-5