AIG FP SYSTEMIC RISK ANALYSIS – DRAFT

Ref	Issue	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research
	LIABILITIES							
1.1	**FP Intercompany Payables**		Funds lent from parent and intercompany transactions between FP and other AIG companies. Estimate $54 bil due to parent AIG ; $1.85bil due to other AIG entities much of which without collateral	**High –** Failure of FP to perform on obligations to other AIG entities may create event of default for the company.	Parent company and other AIG subsidiaries.	Failure of FP may put at risk the financial condition of other AIG operating entities	**High –** FP's inability to repay loan to Parent may cause AIG failure	Unclear level of subordination to other payables
1.2	**Banque AIG**		A significant face to customers of AIGFP. Regulated banking vehicle in France. All of the risk is back-to-back with AIGFP. AIG has pledged to support Banque AIG and AIG generally provide guarantee under CSA..	**High** should FP failure lead to Banque AIG failure with systemic transmission of losses to counterparties.	Banque AIG is face to Reg Cap Arb counterparties and other derivative products of FP in the European market. Currently, Due from AIG FP is approximately $300 mil.	Banque AIG becomes highly risky due to unhedged net open positions	**High** -Risk of preemptive action by the French on Banque AIG regulators. Guarantees could be a liquidity drain	- What is the position of the French bank relulatory authorities regarding Banque AIG?
1.3	**Medium Term Note, Private Placements and Curzon**	0332	$19 bil of generally unsecured borrowings include; Curzon ($4.6 bil), EMTNs ($3.9 bil) US MTN ($1 bil), Private Placement ($13.6 bil) include Commodity linked, credit linked, zero coupon, PRD, equity linked notes. The majority of bonds are in USD, EUR, JPY. Some bonds are puttable and some have accelerated trigger events	**High** Potential unexpected loss of principal on principal protected notes	Sold to regional banks and institutional investors with some ultimate distribution to high net worth investors.	Loss of principal and interest upon default	**Low**	Clarify risk of loss by end investors Confirm if off AIG shelf
1.4	**Project Max**	TBD	2a7 liquidity puts – secured loan from Deutsche Bank backed by CDO collateral. 3 year roll period. $5 bil to $7.5bil.	**Moderate – Low** Single counterparty, collateralized risk	Deutsche Bank	Secured loan Loss of principal and interest upon default	**Low**	
1.5	**Solar Funding**	0285	A secured loan from RBS backed by RMBS and other assets (approximately $2 bil.	**Moderate – Low** Single counterparty, collateralized risk	RBS	Secured Loss of principal and interest upon default	**Low**	
1.6	**Emerald (ETF Notes)**	0310	Commodity ETFs sold to high net worth individuals (approximately $2 bil)	**Moderate -** for Exchange Traded Fund ($2bn) where retail investors invested in these ETF trades will be terminated. Retail investors can terminate anytime and AIG-FP needs to repay in the next 3 days	High net worth investors	Loss of principal and interest upon default (depending upon security)	**Low**	Clarify risk of loss by end investors. Delisting activity
1.7	**Darts (MTN)**	0331	Equity linked notes sold to regional banks and institutional investors ($1.1 bil).	**Moderate**	Sold to regional banks and institutional investors with some ultimate distribution to high net worth investors	Loss of principal and interest upon default	**Low**	Clarify risk of loss by end investors
1.8	**GICs**	0344	Collateralized - $9.7 bil Uncollateralized - $1.7 bil	**Low to Moderate**	Various counterparties – including municipals	Predominately secured	**Low**	
1.9	**Gold Leases**	0346	$1.7 bil largely with central banks.	**Moderate**	Central Banks	Secured and unsecured	**Low**	Follow up on deal specifics
1.10	**Nightingale SIV**	0077, 0348	AIGFP holds $1.6bil in senior notes issued from busted SIV whose assets are largely RMBS and Corporates. Capital notes are deep under water.	**Moderate**	Institutional Investors (primarily Asian and European) - 17 counterparties who have Capital Note exposures. Capital role holders have written off majority of the value already.		**High –** as it converges with the concentrated credit risk of the entity Standard market and credit risks.	
1.11	**Repos**	TBD	Total balance $12 bil includes: 3rd party Repos: $4 bil Portfolio Swaps: $2 bil AIG Repos (to parent) $6 bil	**Low**			**Low**	
	DERIVATIVES							
2.1	**Derivative Payable**	0077, 0348	Derivative unrealized losses due to counterparties	**High**	Counterparties include nationals, supra nationals, SPVs, corporates, and financial institutions. Net unrealized gain/loss ($bil): Gross unrealized gains 17 Collateral received (6) Net unrealized gain 11	- Unsecured exposure for amount in excess of collateral - Counterparty would need to replace position in the market. - Generally, corporate	**N/A**	

Note: All derivatives are mid market and exclude replacement costs (as of dates 9/23 – 10/10)

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Ref	Issue	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research
					Gross unrealized loss 46 Collateral posted (38) Net unrealized loss 8 Total net unrealized gain 3 See Top 50 Unrealized Loss Report excluding intercompany (Attached).	counterparties and SPVs do not post or receive collateral.		
2.2	**Regulatory Capital Arbitrage Trades**	0077, 0348	Short protection on $240bil of assets on balance sheets of European Banks	**High** – currently provides estimated $11.1bil of regulatory capital relief to European banks operating under Basel I.	25 European Banks and one issuance vehicle. Including largest counterparties (loan balance insured): ABN AMRO $56 bil Credit Logement $34 bil Danske $32 bil KFW $30 bil	- Currently providing $11bil in capital relief in European Banks at time of global financial crisis. - Replace cost on early termination. - Market access for these trades in current environment. - Tie to termination analysis	**High** 1>European recession creates potentially material losses. 2>Bank regulators and/or counterparties require collateral to support performance – creating liquidity drain. 3>Trades must be marked-to-market due to increasing economic risk and derivative form (eg. Santander). 4>Replacement costs on early termination.	Obtain approval memos and confirms. Assess likelihood of Risks to AIG.
2.3	**Multi-Sector CDS on CDO**	0077, 0348	Protection written on $72B of mostly sub-prime CDOs. No hedges.	**High to AIG** – Impact on AIG continued capital and liquidity losses potentially leading to bankruptcy of AIG and further destabilization of the financial markets. This comes after FRB already provided $123bil of liquidity to AIG. **Moderate to Counterparties**– Impact on counterparties given level of collateralization.	US and European bank and investment Banks. Goldman Sachs largest counterparties are, Societe Generale, Deutsche Bank, Merrill Lynch and Calyon. Full collateralization mitigates the impact of FP failure. ($31 bil posted against mark of $33 bil).	Collateral at current market mitigates much of potential loss on FP failure. Clients would have unhedged net open risk after a default.	**High** Mark-to-market losses of $34bil have impaired earnings and capital. Cash flow and liquidity is impaired due to collateralization.	
2.4	**Interest Rate Derivative and Bermudan Swap**	0077, 0348	Long dated and exotic interest rate derivative book – some with maturities up to 70 years.	**Moderate to High** Counterparties are financial institutions, many of which are SPVs (mainly CDOs) that issued securitized assets whereby AIG-FP has provided the wrapped interest rate hedge/swaps. The SPV's consequence requires immediate replacement (cannot take the risk) or unwind the SPVs. Unwind would create systemic market risk esp in the housing market. However, they are likely to replace the hedge at a higher hedging cost	Financial institutions and roughly 130 domestic SPVs	Financial institutions have collateral, exposure and replacement. Some SPV counterparties have large uncollateralized derivatives mark to market including Granite Master (Northern Rock SPV $0.6B) and Aire Valley (HBOS SPV - $0.3B)	**Moderate** but challenging. Large net open loans volatility risks in long term Bermudan swaps: EUR vol $65mm, GBP vol $35mm, USD vol $25mm	SPV due to and due from exposure
2.5	**AIG Intercompany Derivatives**	0280	Unrealized losses on derivatives to AIG entities – total FP due to Other AIG subsidiaries estimated at $1.85bil	**Potentially High** depending on loss transmission via intercompany linkages - Replacement costs - Uncollateralized exposures	AIG insurance subs, Financing subs – AGF, ILFC, others TBD. - ILFC 695.2 - AIG MIP 441.5 - SunAmerica LIC 240.3 - Amer General 225.4 - AISLIC 81.6 - ALIC (Del) 63.6 - AIG Sun ALAC 40.6	Failure of FP may put at risk the financial condition of other AIG operating entities	**High** Risk of preemptive action by regulators (insurance) to collateralize, secure or terminate exposures. Similar risk at point of sale.	- Need to map out intercompany guarantees and other covenants that would transmit an event of default to other AIG entities. - Other intercompany balances (non-derivatives)

Note: All derivatives are mid market and exclude replacement costs (as of dates 9/23 – 10/10)

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Ref	Issue	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research
					- ALIC (Ldn) 26.8 - AIRC 21.8 - AIG Pvt Bank (Zur) 17.7			
2.6	**Stable Value Guaranty written on Pensions**	0077, 0348	Stable Value Guarantees (SVG) written on 186 pension plans with total market value of $35.7bil. Contingent liability for FP as the Stable Value Guaranty exceeds the Market Value of the assets by roughly $1.6bil. Risk for FP mitigated by actuarial likelihood of withdrawal. Risk for pension beneficiaries is loss of $1.6bil.	**High –** given the potential loss of $1.6bil in pension assets should FP fail. However, it may be possible to assign the wraps to other 3rd party providers. There are about 10 players in the market that could be approached for assignment.	Counterparties are the trusteesof stable funds in 401k plans and beneficiaries are the participants of the 401k plans. Total counterparties of 186. Largest counterparty is $3 bil. The Pension Plan is at risk of loss if the contracts are not reassigned prior to FP failure.	Failure of FP may create material losses to SVG counterparty, Impact of FP failure on pension provider and pension plan beneficiaries must occur with BV to MV deficit and qualified redemptions. Terminations occurring voluntarily and UBS exiting business.	**Moderate (consider Low) –** potentially high. Current liability is roughly $1.6bil (excess book value over market value). Current market conditions likely to increase this liability. For realized, must be simultaneously book to market value shortfall and sizeable qualified redemptions. Actuarial modeling of loss (due to qualified events of withdrawal) needs to be updated to determine likelihood of loss recognition on AIG books.	What happens to the Plan at default?
2.7	**Power Reverse Dual (PRD)**	0077, 0348	Long Term Structured Notes issued to Japanese retail through Japanese Financial Intermediaries. Structure: 364 swap trades with embedded currency options; $5B notional and $285M market value. Maturities between 10 years and 30 years. Issuers of the note in many cases are supranationals, European banks and other major financial institutions – including AIG. Generally, the options are in the money options, particularly the AUD/JPY deals. Many other dealers have written PRD notes and therefore have similar positions to AIG => capacity to sell./transfer the book may be constrained.	**Moderate (consider High)** risk is limited to issuing banks having to replace PRD swaps which are not liquid in the current market and hence at a higher cost. AIG-FP is the swap counterparties to the Issuing Banks (mainly European financial institutions as they required good ratings). These bonds are then sold on to the Japanese investors via Japanese retail banks/brokers Underlying bond investors are not directly effected as they would still hold the underlying note.	58 counterparties in total Mainly Bond Issuers (IBRD, Supra National) within PRD structure - European banks including Nederlandse Waterschapsbank, KFW, BNP, Dexia Others include Goldman Sachs, IBRD, EBRD, TD Toronto	Issuing banks (mainly European and Japanese-highly rated banks) will lose their hedges, some are positively marked and some are negatively marked. Some counterparties have very large uncollateralized exposures to FP on these deals. Given the liquidity in the market, unlikely for the Issuing banks to recall the PRD bonds and more likely to replace the hedges at a relative significant cost to the issuing banks	**High** Long term complex optionality in currencies and rates. Un-hedgeable of FX skew risk, cross gamma risk, correlation risk (IR/FX), PRD skew No likely buyers of these trades in the market	
2.8	**Municipal Swaps**	0077, 0348	$2.56bil of swaps with Municipalities to transform fixed rate tax-exempt debt to short term paper that may be distributed to tax-exempt 2a7 funds in the form of Variable Rate Demand Bonds (VRDBs).	**High –** Positions are all in-the-money for AIG-FP so counter parties have a replacement cost buffer. Failure of FP as the swap counterparty may disrupt the capacity of the Municipality to fund itself by the VRDB structure. Mitigant is the potential to find another dealer to step in to the swap.	Total swaps of 23 municipal authorities issuing fixed rate debt that AIG swaps to short term. Currently there are 14 swaps based on bond rates, the rest have either terminated or converted to Libor or SIFMA based which are more easily replaced. SCCPA ($266 mil) and Clark County ($124 mil) have the highest bond rate notionals.	Currently negotiations to unwind of $1.1 bil.	**Low** Excluding SIFMA or Libor floaters, AIG pays rate set by remarketing agent for VRDBs. Investors have put the bonds back to liquidity provider causing rate to set high. Tax basis risk in swap. P/L from bond fixing $-12mm this year. MTM for the swaps are positive because current rates are lower than 1990's when the swaps were entered.	
2.9	**Hedge Fund**	0077,	Constant Proportion Portfolio Insurance (CPPI) –	**Moderate** –	Investors in CPPI notes issued by	Failure may leave	**Moderate** but likely.	Who are the investors in

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AIG FP SYSTEMIC RISK ANALYSIS – DRAFT

Ref	Issue	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research
	Derivative	0348	principal protected structured notes linked to Hedge Fund (HF) and Fund of Hedge Funds (FOHF) returns. AIGFP has issued CPPI notes directly – and also provided loss insurance to other CPPI issuers on the Gap Risk embedded in the product. CPPI gap risk is the risk that a CPPI issuer is unable to sell the HF or FOHF investment fast enough and buy the zero coupon bond that ensures principal repayment in the event the HF or FOHF loses value quickly. FP loss if all HF/FOHF values go to zero is $2.6bil.	Investors in AIG issued CPPI notes face loss of principal on FP failure. Counterparties to Gap Risk Insurance sold lose value of insurance.	AIG include institutional investors such as Vienna Life and Bayer. Counterparties on Gap Risk Insurance sold by AIG are other CPPI sellers which are largely sophisticated financial institutions	investors in AIGFP CPPI notes unsecured creditors in bankruptcy. Gap risk insurance buyers left open upon FP failure subject to collateral.	Current market unwind of CPPI creates likelihood of loss on gap risk in CPPI and the insurance sold on gap risk in CPPI. Potential loss should all NAV go to zero is $2.6bil. Of this $1.1bil is driven by trades formerly backed by Lehman which are now unhedged and is in the process of exiting align with the 6-9 months gating restrictions imposed.	CPPI notes?
2.10	**Equity Derivative (ex Austria)**	0077, 0348	300 structured trades. $8bil in total.. More complex trades include multi-factor optionality and path dependency.	**Moderate -- AIG-FP** provides hedges to Equity Linked Notes issued by other financial institutions. The note issuers will need to find hedge replacement upon AIG-FP defaults	All financial institutions except one counterparty with Enresa which is a Spanish nuclear decommissioning fund.	Most financial institutions' exposures are net of collateral. Financial institutions will have replacement risk/cost.	**Moderate** but challenging. Risk managing a large complex OTC equity derivative book with multifactor optionality in volatile market	Getting further info on counterparty names and rationale for trades
2.11	**Interest Rate Derivative and Bermudan Swap - LOBOs**		GBP Bermudan Lenders Option Borrowers Options "LOBO" cancellable swaps up to 70 years (over $1bn notional) Provides hedges to European Banks	**Low to Moderate** Swap to Institution parties have funded UK Local councils /authorities that have structured step funding from European banks (namely Dexia).	Dexia and other European banks	The lenders, European banks hedge the coupon with AIG via LOBOs swaps, The issuing banks would lose the value in the hedges (mitigated by collateral) and need to replace the swap.	**Moderate** The swaps are fairly illiquid considering currently market conditions and could estimated cost $30-40m to liquidate. Difficult to manage the P&L risk and requires rebalancing of hedges Some similar risk profiles to PRDs apart from FX/ IRR correlation.	
2.12	**Mutual Fund Derivatives**	0077, 0348	Constant Proportion Portfolio Insurance (CPPI) – principal protected structured notes linked to Mutual Fund returns. Amount issued is $406mm.	**Low**	Retail mutual funds primarily in the European markets Very retail focused.	Failure may leave investors in AIGFP CPPI notes unsecured creditors in bankruptcy. Gap risk insurance buyers left open upon FP failure subject to collateral.	**Low** Current bear market increases likelihood of loss on CPPI and Gap Risk written	Who are the investors in CPPI notes? Retail mutual funds primarily
2.13	**Stable Value Guaranty written on Bank Owned Life Insurance (BOLI)**	0077, 0348	Stable Value Guarantees (SVG) on $4bil of Bank Owned Life Insurance (BOLI). Risk to FP is coincidence of Market Value less than Stable Value Guaranty combined with actuarial event causing withdrawal (mortality of the insured population)	**Low** – the book value market value differential is estimated at $40mm (ie. 1% of assets).	Counterparties are 4 carriers (Hartford Life, Metlife, Transamerica, MassMutual) and policy holders are JP Morgan Chase and Bank of New York (Mellon).	Failure of FP may create material losses to insurance policyholder. Loss of SVG creates potentially large market value risk and income volatility to insurance purchaser.	**Moderate** – currently. Further losses in MV could drive loss recognition in AIG and potential collateral requirements	
2.14	**Credit Gap Risk Insurance Trades**	0077, 0348	This is gap risk protection sold to banks as a hedge over their Gap Risk obligations to Credit CPPI structures. Exposure fluctuates greatly depending on "reserve" level and "leverage multiple". Varies from approximately $500m to $2 5B under current market conditions.	**Low** Unlikely that the likelihood and magnitude of gap risk losses protected by AIG will make a difference to circumstances if market gaps.	The counterparties to these are investment banks (ABN AMRO and Deutsche), however no obligation to the note holders	Gap risk insurance buyers left open upon FP failure subject to collateral.	**Moderate**. Current bear market increases likelihood of loss on CPPI and Gap Risk written	

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Ref	Issue	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research
2.15	**Republic of Italy Trades**	0077, 0348	Structured derivatives with Republic of Italy roughly $671mm of market value. AIG downgrade motivates termination with replacement costs. 1>CMS swap EUR1bil expiry 2019. 2>Zero/Par swap EUR1bil expiry 2033 3>Cash flow/libor swap EUR2.43bil expiry 2024	**Low** –Republic of Italy is deeply out of the money. CS showing interest to step into trade.	Republic of Italy (ROI) uses these trades to hedge their funding.	Replacement costs of trade.	**Low** AIG potentially will suffer adverse termination price due to downgrade. Looking to novate them to Credit Suisse at $75m-$100m liquidation loss, but current MTM is $673m	
2.16	**Equity Derivative / Austrian Trades**	0077, 0348	Short long term (expiry 2043) equity put options on Austrian equities. AIG option to convert underlying reference variable to eurostoxx 50.	**Low** – AIGFP currently in unrealized gain of $100million. Active novation discussions	Two Counterparties – Wuestenrot and Wiener, which are both pension plans.	Counterparty currently out of the money	**Moderate** Short 30 year puts on Austrian equities with no offsetting hedge. Can convert reference to eurostoxx 50.	Confirm termination provision
2.17	**Commodity Books**	0077, 0348	$7.5bil notional in commodity swaps and other derivatives	**Low** – depending on the counterparties	Main counterparties are Barclays and Exchange Traded Funds (ETF). Liquid underlying so replacement cost is relatively low.	FP failure results in unhedged exposures or lack of commodity exposure otherwise provided by FP.	**Moderate** Should be capable of being unwound in orderly manner	
2.18	**Corporate Arbitrage Books**	0077, 0348	$52bil of super senior CDOs . High concentration in financial service.	**Low** – unless losses become material	Banks in all cases	Collateral posted Currently little collateral posted; however, replacement costs would be very high in current market	**High** Standard market and credit risks of a $52bil portfolio of CDOs in credit bear market.	
2.19	**Mezzanine and Single Name CDS**	0077, 0348	Mezz book long $3.785bil against $.98bil short. Single name cds $3.2bil notional	**Low**	Mainly banking counterparties (largest for AIG sold protection: Danske (2.8bn) and for purchased Curzon ($0.7bn) Bayerische and Hexahome ($0.4bn each).	Currently little collateral posted; however, replacement costs would be very high in current market.	**High** – as it converges with the concentrated credit risk of the entity Standard market and credit risks…	
	ASSETS							
3.1	**Assets Held For Sale Portfolio**	0057	$51bil in securities held as AHFS - $17bil of which are reported to be unemcumbered.	**Low**	N/A - Security	N/A	**Moderate** – there seems to be difficulty in selling position of marks	
3.2	**Infrastructure Trades and Strategic Investments**	0080	Variety of Private Equity infrastructure deals and tax enhancement trades totaling $820mm Includes: (at 6/30 or 8/31?) Tenaska Marketing $300 mil GS Infrastructure Ptrs $234 mil Stanton Wind Farm $102 mil Other (Deutche Bank) $1.4 bil Leveraged leases $476 mil	**Low**	**N/A** - Security	**N/A**	**Low** – with exception for contingent liquidity draw of $1bil on AIG in Tenaska deal.	
3.3	**Short term investments**	0045	Includes investments with AIG-IC. Balance at 8/31 was $1.4 bil. The account represents AIGFP's participation in Sec lending arrangements with other AIG entities.	**Low**	**N/A**	**N/A**	**Low**	
3.4	**Trade receivables**	0072	Receivables at 8/31 was $9 8 bil. Includes; collateral posted, A/R, stock borrowed, due from brokers, fails to deliver and margin deposits. Payables at 8/31 was $3.1 bil and includes; collateral received, A/P, due to brokers, fails to receive and customer margins/T-bills.	**Low**	**N/A**	**N/A**	**Low**	
3.5	**Investment in partially-owned companies**	0090	Balance at 8/31 was $4.7 bil includes an investment in Bermuda Life.	**Low**	**N/A**	**N/A**	**Low**	
3.6	**Current tax receivable (payable) – AIG**	0192	Balance at 8/31 was $9.4 bil	**Low**	**N/A**	**N/A**	**Low**	

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Ref	Issue Parent	Accnt	Description	Systemic Risk (H/M/L)	Who is the likely counterparty to these transactions	Risk to Counterparty of AIG-FP failure	Risk to AIG	Further Research

Risk Criteria Legend: *The following criteria were used to determine whether the risk was High Moderate or Low*

Systemic Risk
- the size of the exposure relative to the market overall (e.g. absolute size of the exposure)
- the size of the exposure relative to the other AIG entities (e.g. intercompany activities can the event impact AIG Inc. which is viewed as a systemic event)
- the size of the counterparty (e.g. size of the exposure relative to the counterparty and its ability to absorb loss)
- the nature of the counterparty (e.g. derivatives dealer vs. pension plan/individual investor)
- the systemic importance of the counterparty (e.g. impact upon counterparty related to broader impact upon market stability)

FP Risk to AIG
- the size of the exposure relative to the capital, liquidity and risk position of FP.

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