2011 Aircraft Sector Understanding – Overview and Summary

A • W • G

AVIATION WORKING GROUP

Topics Covered

- 2011 ASU in Perspective
- 2011 Pricing and other Terms and Conditions
- Transition Rules
  - Grandfathering (2007 ASU)
  - Great-grandfathering (LASU)
- Periodic Fee Adjustment - Complexity and Volatility
- Risk Assessment System
- Review
- Back up information and data

Background to 2011 ASU

- Pre-2007
- Large aircraft export credit regulated by OECD rules set out in an annex to the original ASU (LASU). Low pricing, promoting exports – maintaining a manufacturer level playing. Low perceived risk
- Regional aircraft regulated by WTO framework, as Brazil was not ASU party
- No perceived competition between large / regional aircraft; limited concern about the relationship between export credit pricing and commercial markets

- 2007 ASU
- Brazil enters OECD system. Bifurcated system (Cat 1 v. Cat 2/3 aircraft). Increased pricing, and tighter terms, reflecting emerging concerns about relationship with commercial markets

- Post 2007 (Reasons for Review Leading to 2011 ASU)
- Bombardier CSeries – bifurcated system untenable
- Financial crisis: increased use of export credit; large pricing difference w/ markets
- Expressed concerns of home market airlines (airline level playing field)

- 2011 ASU – effective 1 February 2011

Evolution of Export Credit Rules

Pre-2007 -- 2007 ASU -- 2011 ASU

Pre-2007 (July)	2007 ASU	2011 ASU
• LASU among U.S., U.K., Germany, France, Spain (Boeing, Airbus) • WTO framework between Brazil and Canada (Embraer, Bombardier)	• Added Brazil and become relevant for Canada and Japan • Embraer, Bombardier, MJET, ATR operating under in OECD framework	• Single set of rules apply all countries to OECD countries plus Brazil
• 3% fee (discretionary increases for weaker credits) (LASU) • Market pricing (non-LASU)	• Increased premium based on risk classification (4.0% - 7.5%)(Cat 1) • Spread 16 – 249 bps (Cat 2)	• Further increased premium based on risk classification plus market adjustments (initial 7.72% - 14.74%; 137 – 257 bps). Complex w/ volatility
• No universal risk classification process (LASU)	• Bifurcated system, including pricing – Cat 1 - Large aircraft – 5 classes, 12 yr term – Cat 2 - Other aircraft – 15 classes (includes 737-600, A318), 15 yr term	• Single system, including one risk classification process for all borrowers – 8 risk classes – 12 yr term
• Discretionary structural flexibility – wraps, soars allowed (LASU)	• Mandatory structural risk mitigants for Cat 1 but not Cat 2; no wraps, soars for either	• Increased mandatory structural risk mitigants required; no wraps, soars
• Only Ex-Im bank provided discount for Cape Town (1/3)(LASU)	• Variable max. CT discounts, Cat 1 (5-20%); 10% (often deemed) for Cat 2	• 10% max discount for Cape Town
• Home market rule observed (LASU) • Brazil and Canada did not recognise home market rule	• Same as Pre-2007	• Same as 2007, unless C-series competition (matching contemplated)
	• Long transition	• Shorter but significant transition

2011 ASU Results

- Maintains manufacturer level playing field – assuming domestic matching, where needed, which is up to the relevant government (not an ASU point)
- Adjusts the relationship, by minimizing competition, between export credit agency and commercial market financing (by substantially raising fees and tightening terms (including lower advance rates in most cases))
- In consequence: seeks to address airline level playing field, without prejudice to home market practices
- Provides reasonable transition period to new agreement, easing impact on airline customers and honoring some existing “grandfathered” and “great grandfathered” transactions
- Incentives maintained and leveled for ratifying Cape Town Treaty (depending on borrower risk classification, value between .72% and 1.47%)
- Continues to provides review clause to address issues and make adjustments as necessary
- Complex system with the potential for significant volatility

Attempts to balance many competing interests

Risk Assessment System

ASU Risk Category	Risk Ratings
1	AAA to BBB-
2	BB+ to BB
3	BB-
4	B+
5	B
6	B-
7	CCC
8	CC to C

- Determined by ECAs
- All airlines on one common ratings list
- Consensus sought for each rating required
- Process for addressing rating disagreements (see below)

Effectiveness of rating system to be determined

Overview: ASU 2011 and ASU 2007 Comparison

	ASU 2007 Bifurcated System		ASU 2011 Single System
	Cat. 1	**Cat. 2/3**	**All Aircraft**
Risk Categories	5	15	8
Pricing in Terms of Spread or Fee	Upfront Fee	Annual Spread	Annual Spread and Equivalent Upfront Fee; NPV-based Conversion Model
Payments	Quarterly	Semi-annual	Quarterly (Option for semi-annual with 15% surcharge on MPR with prior notification)
Maximum Official Support	85%	85%	80% for BBB- up 85% for BB+ to C
Maximum Term	12 years	15 years for Cat 2 10 years for Cat 3	12 years (15 year option with 35% surcharge on MPR on an exceptional basis and with prior notification)
Risk Mitigants (**RM**)	0 for BB and up 1 for BB- to B+, 2 for B to B-, 3 for CCC to C	No RMs	Two types of RM: A and B 0 for BB and up 1 (1 A) for BB- 2 (1 A + 1 B) for B and B+ 3 (2 A + 1 B) for B- 4 (3 A + 1 B) for CCC to C (Option to replace one A risk mitigant with 15% surcharge on MRP with prior notification)
Cape Town Convention Discount	Differentiated maximum: 5% for BBB- up 10% for BB+ to B+ 15% for B to B- 20% for CCC to C	Flat 10% maximum for all borrowers	Flat 10% maximum reduction in MPR for all borrowers
Minimum Direct Lending Interest Rates	Standard form pure cover. Direct lending only in exceptional circumstances with prior notification; CIRR-1	Choice of CIRR-2 or swap rates	Market interest rate (7 year swap for 12 year fixed, 6 year swap for 10 year fixed, LIBOR for floating) + Margin Benchmark (based on commercially funded pure cover transactions) (CIRR only for aircraft less than USD 35 million with prior notification)
Minimum Premium Rates (**MPR**)	Pure cover upfront fees fixed	Direct lending annual spreads updated annually (based on historical 1st lien bank loan LGDs)	MPR = Risk Based Rates (**RBR**) updated annually (based on historical 1st lien bank loan LGDs) + Market Reflective Surcharges (**MRS**) updated quarterly based on corporate bond market Median Credit Spreads (**MCS**)

ASU Nominal Fee Schedule*

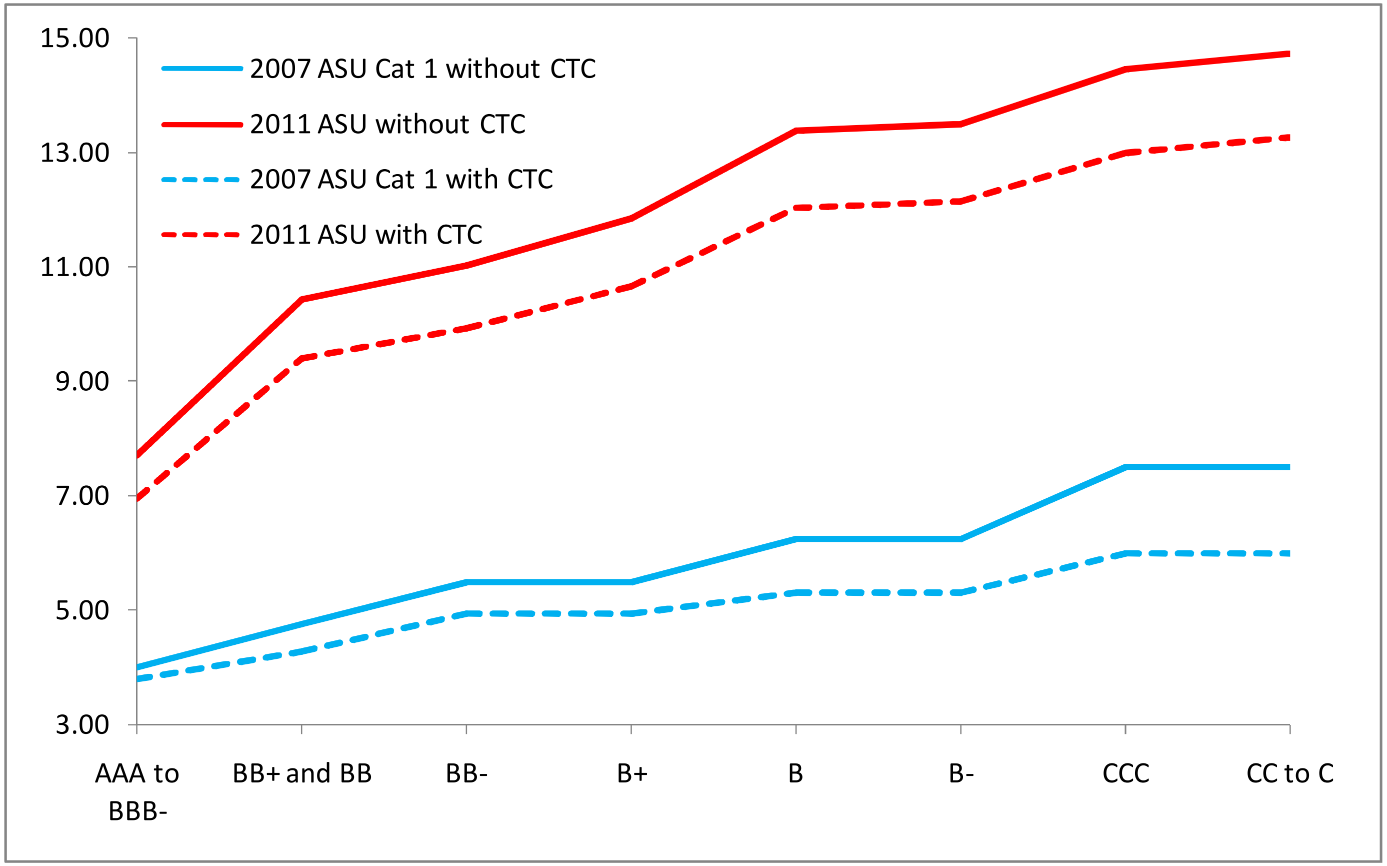
Comparison of 2011 Single System to 2007 Category 1 MPR (Upfront Fees)

		MPR, non-CTC			MPR, CTC		
Risk Category	Risk Classification	2007 ASU C1 Upfront, %	2011 ASU C1 Upfront, %	MPR Increase	2007 ASU C1 Upfront, %	2011 ASU C1 Upfront, %	MPR Increase
1	AAA to BBB-	4.00	7.72	**93%**	3.80	6.95	**83%**
2	BB+ to BB	4.75	10.44	**120%**	4.28	9.40	**120%**
3	BB-	5.50	11.03	**101%**	4.95	9.93	**101%**
4	B+	5.50	11.85	**115%**	4.95	10.67	**115%**
5	B	6.25	13.38	**114%**	5.31	12.04	**127%**
6	B-	6.25	13.50	**116%**	5.31	12.15	**129%**
7	CCC	7.50	14.45	**93%**	6.00	13.01	**117%**
8	CC to C	7.50	14.74	**97%**	6.00	13.27	**121%**
			Average:	**106%**		**Average:**	**114%**

*This comparison of nominal upfront fees does not take into account differences in terms and conditions under 2007 ASU Category 1 and 2011 ASU (in particular differences in risk mitigants in 2007 ASU Category 1 and 2011 ASU). Furthermore, this document does not provide any comparison of 2011 ASU annual spreads and 2007 ASU Category 2 and Category 3 annual spreads due to significant differences in terms and conditions (in particular, addition of up to 4 risk mitigants in 2011 ASU vs. no risk mitigants in 2007 ASU Category 2 and 3). A meaningful comparison would require taking into account these differences.

ASU Nominal Fee Schedule*

Comparison of 2011 Single System to 2007 Category 1 MPR (Upfront Fees)



*Does not take into account differences in terms and conditions under 2007 ASU for Category 1 and 2011 ASU Single System.

Risk Mitigants and Related Items

2007 ASU (Cat 1)	2011 ASU
• None for BB and up • 1 for BB- to B+ • 2 for B to B- • 3 for CCC to C	• None for BB and up (NB: 80% max credit for BBB- and up) • 1 (A) for BB- • 2 (1-A and 1-B) for B and B+ • 3 (2-A and 1-B) for B- • 4 (3-A and 1-B) for CCC to C
• ***Mandatory*** **risk mitigants** –Each 5% reduction from the permitted 85% advance rate of net price –Equal principal repayments –10-year repayment term	• ***Mandatory*** **"A" & "B" risk mitigants** • **"A" risk mitigants** –Each 5% reduction from the permitted 85% advance rate of net price –Equal principal repayments –10-year repayment term – NB: 15% surcharge on exposure fee (one time) may replace one of the above A risk mitigants • **"B" risk mitigants** –Security deposit (one quarter of principal and interest payments) –Lease payments in advance –Maintenance reserves
• **3-month repayment interval** – No principal payment grace period	• **3-month repayment interval** – No principal payment grace period
• **Max 85% of net price advance rate**	• **85% of net price advance rate *(80% risk cat. 1)***
• **No mandatory cross default / cross collateralization**	• **Mandatory cross default / cross collateralization**
• **Mortgage style amortization schedule**	• **Mortgage style amortization schedule**

Great-Grandfathered/Grandfathered Transactions

Great Grandfathered - LASU	Grandfathered – 2007 ASU
• ASU does not govern great grandfathered transactions, except limiting the minimum fee to 3% –Governed by existing LASU • Great Grandfathered transactions –69 aircraft each for 2007 ASU Category 1 country (represents historical percentage of export credit) –Firm contracts concluded by 30/4/2007 •Defined as a binding commitment between manufacturer and customer (including sale-leasebacks >= 5 years) –Deliveries **originally scheduled** through 31/12/2010 –No limitation on delivery date –Minimum 3% Exp Fee • Commitment fee of 35 basis point per annum accruing from the earlier of (i) final commitment or (ii) 31 March 2011, payable at delivery	• ASU does not govern grandfathered transactions –Governed by existing 2007 ASU • Grandfathered transactions –Firm contracts concluded by 31/12/2010 –Deliveries completed by 31/12/2012 for 2007 ASU Category 1 aircraft and 31/12/2013 for 2007 ASU Category 2 and 3 aircraft. • Commitment fee of 20 basis point per annum accruing from the earlier of (i) final commitment or (ii) 31 January 2011 (2007 ASU Category 1 aircraft)/ 30 June 2011(2007 ASU Category 2 and 3 aircraft)/, payable at delivery Note – Category 2 countries allowed additional 92 aircraft grandfathered to 2007 ASU agreement with no delivery date limitation for aircraft contracted by 31December 2010 with a 20 basis point per annum commitment fee accruing from the earlier of (i) final commitment or (ii) 30 June 2011, payable at delivery.

Transition allows time to absorb change

Great-grandfathered/Grandfathered Timelines

Great Grandfathered – LASU

- 69 aircraft each for 2007 ASU Category 1 country

Firm contracts concluded by 30/4/2007 — for → Deliveries **originally scheduled** through 31/12/2010

No limitation on delivery date

Firm contracts concluded by 31/12/2010 — for → Cat 1 aircraft delivered by 31/12/2012

Cat 2 & 3 aircraft delivered by 31/12/2013

No limitation on delivery date for 92 2007 ASU Cat 2 aircraft

Grandfathered – 2007 ASU

Transition allows time to absorb change

Periodic Fee Adjustment - Complexity and Volatility

- Risk Based Rates (RBR)
  - Reset annually based on 4 year moving average of annual Moody's Loss Given Default (LGD) for first lien bank loans
  - Reset range from 0% to 32% of RBR (based on year-to-year LGD changes)
  - First reset scheduled for 1st quarter 2012

- Market Reflective Surcharge (MRS)
  - Reset quarterly based on Moody's median credit spreads (MCS)
  - Adjusted MRS become effective on 15 April, 15 July, 15 October, and 15 January
  - MRS based on 90 day moving average of MCS
  - MRS only applied if positive and exceeds 25 bps
  - Increases to MRS capped at 10% per quarter

- <u>See backup materials</u> indicating complexity and potential for volatility

Complex and potentially volatile system

Risk Classification Process

- **Establishment of the List of Risk Classifications**
  - Participants to agree on list of risk classifications for buyers/borrowers prior to entry into force of the ASU
    - OECD Secretariat to maintain the list; Available to Participants on confidential basis
    - Rating binding at any stage of the transaction (e.g. campaign and delivery)
- **Updates to the List**
  - Ad hoc basis for classification change or new buyer/borrower
  - No Identification of Participant requesting classification decision
  - Parties allowed 10 working days to challenge, otherwise agreed to
- **Resolution of Disagreements**
  - Challenge to a risk classification provides an additional 10 working days to resolve between interested Participants
  - Inability to reach agreement triggers referral to all Participants to resolve within 5 working days
  - In the absence of a final agreement, classification will be determined by a Credit Rating Agency and become binding
- **Validity Period of Classifications**
  - 12 month maximum validity period from date recorded in List by Secretariat; subject to revision if material change (e.g. new rating by CRA)
  - Extension of 18 months possible
- **Buyer/Borrower Risk Classification Request**
  - Indicative risk classification from a CRA at its own expense if not on list; classification not binding on Participants

Review Process

- Review process
  - First scheduled review: 2015
  - Ad hoc reviews may be called by any OECD Participant
  - Upon 3 months written notice
  - Written explanation of reason and objectives
  - Summary of consultations preceding the request

Given history, review may occur sooner than 2015

Backup Slides – Additional Information

relating to

the Methodology used for, and Historical Simulations indicative of, Resets and Adjustments under the ASU

Risk Base Rate (RBR) Adjustment Calculation

- Annual RBR adjustment based on 4 year moving average of Moody's Loss Given Default (LGD)

LGD Mapping	
4-Year Moving Average	**LGD Considered**
≥45%	25%
≥35%<45%	23%
≥30%<35%	21%
<30%	19%

- Adjustment Factor Formula
- $\frac{\text{LGD Considered}}{19\%}$ = RBR Adjustment Factor

- Example: LGD Considered =21%

  $\frac{21\%}{19\%}$ = RBR Factor of 1.11

Base fees adjusted annually

MRS Adjustment Calculation

- For each risk category, a Market Reflective Surcharge shall be calculated as follows:
  - MRS = B*[(0.5*MCS)-RBR]

- MCS is a 90-day moving average of Moody' Median Credit Spreads with an average life of 7 years

- B is a blend coefficient varying from 0.7 to 0.35 according to each risk category as per the table below.

Blend Factors		
Risk Ratings	ASU Risk Category	Blend Factor %
AAA	1	70%
AA	1	70%
A	1	70%
BBB+	1	70%
BBB	1	70%
BBB-	1	70%
BB+	2	65%
BB	2	65%
BB-	3	50%
B+	4	45%
B	5	40%
B-	6	35%
CCC	7	35%
CC	8	35%
C	8	35%

Surcharge adjusted quarterly

MRS Adjustment Calculation (Continued)

- MCS is a 90-day moving average of Moody's Median Credit Spreads (MCS) with an average life of 7 years.

- Where risk categories include more than one risk rating, the spreads shall be averaged. In risk category 1, the BBB- spread shall be used.

- The MCS spreads shall be discounted by 50% to account for the asset-security. The MCS discounted spreads shall then be adjusted by a blend factor ranging from 70% to 35% as per Table 4 below, applied on the difference between the MCS discounted spreads and the RBR. Any negative spreads resulting from the blending shall not be deducted.

- MRS shall be applied only if and when it is positive and exceeds 25 bps.

- The increase in minimum premium rates resulting from the MRS update shall not exceed 10% of the previous quarterly minimum premium rates. The minimum premium rates (which result from adding the risk-based rates and the market reflective surcharge) shall not exceed the risk-based rates by more than 100%.