

# **Institutional Investors Program**

March, 2014



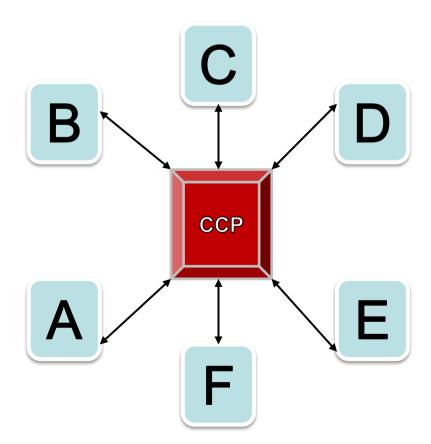
# Agenda

- 1. Asigna
- 2. Asigna's operational flow
- 3. Initial margin
- 4. Market risk buffers
  - Margin call
  - Collateral Valuation
  - Haircuts
  - Capital Investment
  - Default waterfall
- 5. Segregation & Portability
- 6. TIIE Swap Valuation



# What is Asigna?

- Asigna, is an administration and payment trust in the market for listed or standardized derivatives.
- Asigna is a Clearinghouse that plays a crucial role, because it becomes the counterparty and thus the guarantor of all the financial obligations involved in trading derivative contracts





## Trust Structure

### **Asigna's Structure**

Asigna is made up of Clearing Members that are administration and payment trusts created by the largest established financial groups in Mexico: Banamex, BBVA Bancomer, J.P. Morgan, Santander, Grupo Bursatil Mexicano and Scotiabank.





J.P.Morgan









# **AAA Clearing House**

- Asigna has the highest credit worthiness, which is found with the ratings given by the three major rating agencies worldwide
- Asigna's global credit ratings has been three consecutive years above the Federal Government's credit rating

	Moody's	STANDARD &POOR'S	<b>Fitch</b> Ratings
Outlook	Stable	Stable	Stable
Global	A3	BBB+/A-2	
Local (Long & Short Run)	Aaa.mx	mxAAA/mxA-1 +	AAA(mex)/F1+(mex)



## **Contracts Cleared**

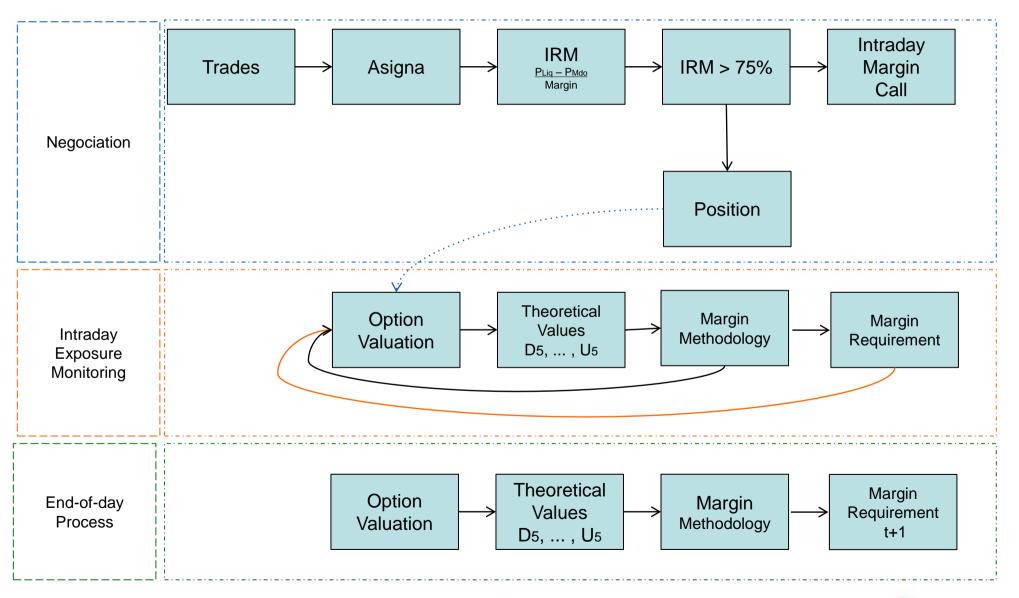
#### **Contracts**

Asigna clears and settles a wide range of derivative contracts, including interest rate contracts, equity securities, index, currencies, commodities, ETFs and IRS.

UNDERLYING ASSET	FUTURES	OPTIONS	SWAPS
CURRENCIES	United States Dollar	United States Dollar	
CONNENCIES	Euro	Euro	
INDEX	IPC Index of the BMV (Mexican Stock Exchange)	IPC Index of the BMV (Mexican Stock Exchange)	
	28day Interest Rate (TIIE)		
	91day Treasury Cert.(Cete)		
	3 Year Bond		
	5 Year Bond		
INTEREST RATES	10 Year Bond		28 day TIIE - IRS
INTEREST RATES	20 Year Bond		(3 months - 30 years)
	30 Year Bond		
	Inflation Index		
	10 year Futures Sw aps		
	2 year Futures Sw aps		
	América Móvil L	América Móvil L	
	Cemex CPO	Cemex CPO	
	Femsa UBD	FEMSA UBD	
	Gcarso A1	GMéxico B	
SINGLE STOCKS	GMEXICO	Naftrac 02	
	Walmex V	Tlevisa CPO	
	BRTRAC 10	Walmex V	
	ILCTRAC ISHRS	BRTRAC10	
	MEXTRAC 09	MEXTRAC 09	
COMMODITIES	Yellow Corn Futures		



# Asigna's operational flow





# **Initial Margin**

- Initial Margins is the amount of resources to be posted by the Clearing Members depending on the risk exposure of every portfolio
- The exposure is determined by the Margin Methodology, which has the main purpose to calculate the amount of resources to neutralize a negative effect of an adverse market movement in a portfolio
- The Clearing Member clients are the main depositors of these resources
- Initial Margins can be constituted as cash or securities, the latter with a haircut to provide additional protection against price fluctuations.



## Market risk buffers

- Asigna has implemented market risk buffers to provide extra protection:
  - Margin call
  - Additional Margins
  - Position Limits
  - Intraday Mark-to-Market
  - Collateral Valuation
  - Haircuts
  - Default waterfall



## Market risk buffers

## Margin Call

- Asigna activates the Intraday Margin Call mechanism when detecting the two following situations:
  - Extreme market volatility
  - An abrupt increase in the open interest
- Before activating this preventive mechanism, the Clearing Members can activate their own Intraday Margin Call, according to their Clients' margin sufficiency indicators
- To obtain real time sufficiency indicators, Asigna and its Clearing Members have a risk management software that allows to monitor each portfolio individually



## Collaterals & Haircuts

#### **Collaterals**

The eligible collaterals are:

- Cash (Mexican peso)
- US Dollars
- Highly liquid Stocks
- Mexican government and U.S. government debt (T-bills, T-notes, T-bonds).

HAIRCUTS TO INITIAL MARGIN CONTRIBUTIONS			
SECURITY	TYPE	HAIRCUT	
Stocks*	1	20.00%	
Brems	XA	0.80%	
BPAT's	IT	1.50%	
Bonde182	LS	1.50%	
Bondes D	LD	1.50%	
BPA's	IP	1.00%	
Taxed Cetes	BI	0.50%	
BPA's 182	IS	1.50%	
T-Bills	D4SP	6.50%	
Dollar	*CSP	6.50%	

NON-PARALEL HAIRCUTS BY LIQUIDITY BANDS APPLIED TO FIXED INTERES RATE GOVERNMENT DEVELOPMENT BONDS, DENOMINATED "M" IN ALL TERMS			
SECURITY	TYPE	TERM	HAIRCUT
			4.000/
Bond	M	T ≤ 1 <u>year</u>	1.00%
Bond	M	1 < T ≤ 5 <u>years</u>	2.50%
Bond	M	5 < T ≤ 10 <u>years</u>	5.00%
Bond	M	10 < T ≤ 15 <u>years</u>	7.00%
Bond	М	15 < T ≤ 20 <u>years</u>	8.00%
Bond	М	T > 20 years	8.00%



## Collaterals & Haircuts

#### **Haircuts**

The haircuts rule implies that the calculations have to take into account the liquidity of each instrument and to reflect the potential declines in asset values during extreme and normal market conditions.

NON-PARALEL HAIRO BILLS, US TREAS	CUTS BY LIQUIDITY URY NOTES, US TR		
SECURITY	TYPE	TERM	HAIRCUT

T-Note & T-Bond	D5SP & D6SP	T ≤ 1 <u>year</u>	6.50%
T-Note & T-Bond	D5SP & D6SP	1 < T ≤ 5 <u>years</u>	8.00%
T-Note & T-Bond	D5SP & D6SP	5 < T ≤ 10 <u>years</u>	10.00%
T-Note & T-Bond	D5SP & D6SP	10 < T ≤ 15 <u>years</u>	12.00%
T-Note & T-Bond	D5SP & D6SP	15 < T ≤ 20 <u>years</u>	13.00%
T-Note & T-Bond	D5SP & D6SP	T > 20 <u>years</u>	13.00%

NON-PARALEL HAIRCUTS BY LIQUIDITY BANDS APPLIED TO FIXED INTEREST RATE GOVERNMENT BONDS LINKED TO INFLATION (UDIBONOS)			
SECURITY	TERM	HAIRCUT	
UDIBONOS	T ≤ 1 año	1.00%	
UDIBONOS	1 < T ≤ 5 años	2.50%	
UDIBONOS	5 < T ≤ 15 años	7.00%	



# Capital Investment

Asigna on a daily basis invests the Capital (Margins & Collateral) at a highly competitive rate under the investment regime (Government Repos)



## **Default Waterfall**

### **Default procedures**

- Asigna's rulebook provides the authority to promptly close out the positions of a defaulting participant and to apply the defaulting participant's collateral or other resources
- Also, it allows the transferor (as an alternative) liquidation of the positions and margin of customers of the defaulting participant.



#### **Margin Fund**

Margins must be sufficient to cover maximum possible losses that could be generated per each open contract. The main depositors of this fund are the Clients through the Clearing Members and it can be constituted in cash or securities.



#### **Clearing Fund**

The main depositors of this Fund are the Clearing Members and it can be constituted only in cash. It may be used to cover the default of any Clearing Member and Asigna has to survey the deposit of this fund on a daily basis.



#### **Clearing Member Capital**

These funds must be provided by the Clearing Members to make up their own position and are used to cover default obligations.

- Propietary: 2.5 million UDIS or 4% of Margin Fund
- Third Party: 5 million UDIS or 8% of Margin Fund



#### **Clearing House Capital**

This fund is used in cases where all the Trustees are in default of their obligations. In that case Asigna has its own Capital to respond to the failure; this Capital is conformed by at least 15 million UDIS.

# Segregation & Portability

### **Segregation**

Asigna's account structure is designed to have Accounts and Sub-Accounts, so that both the Clearing Member and the Clearing House can manage and monitor the Clients in a more efficient manner.

### **Portability**

The Clearing Member Clients can move their positions from one Clearing Member to another without closing their open positions, taking the margins posted to the new Clearing Member.



# TIIE Swap Valuation

- Asigna uses the zero coupon rate implied in the IRS-TIIE Contracts published by the price vendors
- Zero coupon curve construction
  - Bootstrapping from 3X1 to 390X1
  - Cubic Spline Interpolation



# TIIE Swap Valuation

## **Current Valuation**

- Floating Cash Flows
- Fix/Floating Cash Flows discounting
- → TIIE zero coupon curve (forward rate)
- → TIIE zero coupon curve

## **New Valuation**

- Floating Cash Flows
- Fix/Floating Cash Flows discounting
- → TIIE zero coupon curve (forward rate)
- → OIS MXP zero coupon curve



# **TIIE Swap Valuation**

## New Valuation Advantages:

- Asigna Valuation = OTC Valuation
- Transparent price formation
- Asigna Valuation = CME Valuation

