




The Capital Markets Linkages among the OIC Member Countries

OIC Member States' Stock Exchanges Forum
OIC Capital Market Linkage Task Force

Istanbul, September 17-18, 2011



At the last Working Committee meeting held in Istanbul dated 2-3 October 2010, some issues have been studied on the Islamic countries' stock exchanges linkages such as follow:

- Necessitates of Exchanges Linkages
- Goal and Scope of the Capital Markets Linkage
- Some Models of linkages among Capital Markets
- Regulation Issues and Technological Infrastructure
- Costs and Sources of funding
- Proposing a linkages model
- Proposing to the Task Force to provide the outline of the MMOU



Some Models of linkages among Capital Markets

- 1) CME Group and Mexican Derivatives Exchange (MexDer)- August 2011
- 2) MILA (among Colombia, Lima & Santiago Exchanges) – May 2011
- 3) CME Group and BM&Bovespa (iLink)
- 4) LATIBEX (among Five Latin America Countries)
- 5) Link up Markets (among 10 leading CSDs spread from Europe to South Africa)
- 6) ADX Linkage with DFM and MSM
- 7) ASEAN Trading Link
- 8) Eurex, the International Securities Exchange (ISE), and The Options Clearing Corporation (OCC)

The Proposed Model

Country X

Investor X

through brokerage house X

Stock Exchange X

Brokerage House X

Order router

The order routing system recognizes that it is an order related to the Stock Exchange Y market and routes it to the Stock Exchange Y

Gateway

Risk management

Once the participant identified, the order is submitted to risk analysis, conducted by Brokerage House Y

Country Y

Investor Y

through brokerage house Y

Stock Exchange Y

Brokerage House Y

Order book

Having passed the risk criteria, the order is included in the order book

Agreement

Clearing&Settlement

Brokerage House X signs an agreement with a brokerage house from Country Y, all trades via the e-link is cleared&settled through Brokerage House Y.



Main Specifications of the Proposed Model (cont'd)

- It provides market access to the home country exchange for foreign brokerage houses
- No cross-membership is required
- Bilateral Agreements among intermediaries have a vital role. For this reason, the requirements of brokerage firms should be clarified and addressed.
- Regulatory authorities and exchanges keep their enforcement power and status. Each participant is subject to its own regulations.
- It does not cause any conflict of interest among exchanges because of independent management structure.



Main Specifications of the Proposed Model (cont'd)

In the proposed model,

- No changes to the current set-up and no need for a new system development for the post trade services
- Local brokerage house signs an agreement with a brokerage house which is a member of another OIC member stock exchange in which the trade is executed
- Local brokerage house executes clearing & settlement of all its trades in that exchange through bilaterally agreed brokerage house

Easy Implementation with minimal adaptation

Potential future extensions;

- Opening bilateral correspondent accounts between CSDs would facilitate more efficient post trade operations
- Setting up a linkage among CSDs in order to provide market participants with a single point for access



Results of the Questionnaire

(Made by the OIC Capital Market Linkage Task Force)

- To explore intentions and possibilities for establishing market linkages among OIC member countries' stock exchanges

- Replying institutions
 - Amman Stock Exchange
 - Egypt Stock Exchange
 - Islamabad Stock Exchange
 - Kyrgyz Stock Exchange
 - Tadawul Stock Exchange
 - Tehran Stock Exchange
 - Muscat Stock Exchange
 - Tunis Stock Exchange
 - Istanbul Stock Exchange



Results of the Questionnaire (Made by the OIC Capital Market Linkage Task Force)

- ❖ **The main points that can be extracted from the replying exchanges are:**
 - Almost all of replying exchanges have no legal restriction for making a Trading Link
 - Almost all of replying exchanges have DMA capabilities. DMA is a prerequisite and infrastructure for any international trading linkages.
 - There is no restriction for foreign ownership specially strategic ownership except for Kyrgyz in strategic ownership and Saudi Arabia that impose some restriction on non GCC investors.
 - Most of replying exchanges announced that currently, they don't have a trading linkage but may set a plan for joining to a market link in the future.
 - There is no restriction (such as repatriation of principle and profit) on foreign investment by the replying members except Tadawul, even some of them offer encourages to attract foreign investors.
 - Almost all of replying exchanges have a desirable capabilities in the data dissemination through their web site or the data vendors.
 - All of replying exchanges have anti money laundry initiatives

Results of the Questionnaire (1)

(Made by the OIC Capital Market Linkage Task Force)

	Egypt	Amman	Kyrgyz	Islamabad	Muscat	Tadawul	Tehran	Tunis	Istanbul	Total	
										# yes	# no
Current TL	No	No	No	Yes	No	No	No	No	No	1	8
Legal restriction on TL	No	No	No	No	No	No	No	No	No	0	9
Permission for TL needed	No	Yes	No	yes	yes	yes	yes	No	yes	6	3
Revising current regulation needed	Yes	No	No	Yes	Yes	Yes	No	No	Yes	5	4
Brokers need a license for TL	yes	yes	Yes	yes	yes	yes	yes	No	Determined by regulation	8	1
Anti money laundry act	yes	yes	yes	yes	yes	yes	yes	Yes	Yes	9	0
Restriction on foreign investment	no	For some sectors	No	No	No	Yes, in the form of SWAP	No	Authorization for some sectors	No	8	1

Results of the Questionnaire (2)

(Made by the OIC Capital Market Linkage Task Force)

	Egypt	Amman	Kyrgyz	Islamabad	Muscat	Tadawul	Tehran	Tunis	Istanbul	Total	
										# yes	# no
Initiative for compensating losses from law changes	There isn't separate rule	No	yes	There isn't separate rule	yes	No	yes	Yes	No	4	3
Capital gain/dividend tax	Not for equity market, 20% for bond	No	No	Capital gain: 8%-10% Dividend: 10%	No	No	No	Not for dividend, slightly for capital gain	Capital gain: 0% Dividend: 15%	4	5
Trading system	Developed by NASDAQ OMX	NSC V900 developed by NYSE	Local	Local	Developed by NYSE	Developed by NASDAQ OMX	Developed by Euronext	NSC V900 developed by NYSE	Local, co-developed by TCAM		

Results of the Questionnaire (3)

(Made by the OIC Capital Market Linkage Task Force)

	Egypt	Amman	Kyrgyz	Islamabad	Muscat	Tadawul	Tehran	Tunis	Istanbul	Total	
										# yes	# no
DMA (online Trading)	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	8	1
Data disclosure through vendors or exchange	Yes	Yes	yes	For certain data	Yes	Yes	Yes	Yes	Yes	9	0
Corporate action in English language	yes	No	No	Yes	yes	yes	No	No	yes	5	4
Strategic investment allowed to foreign investors	yes	Yes	yes	yes	yes	yes	yes	yes	yes	9	0



Capital Market Linkage (CML) Conference

Holding a CML conference that proposed in the last resolution to discuss on the topic and examine the world experiences on this issue, has been followed by Capital Market Linkage Task Force. This conference helps task force provide a guideline for selecting a software provider and implementing the linkage.



Guidelines for MMOU of OIC Member States' Stock Exchanges to Make OIC Capital Market Linkage

Outlines of the MMOU's Guideline

➤ Introduction

➤ Definition of Terms

➤ General Guiding Principles

➤ Application to Become a Signatory
to the MOU

➤ Monitoring of the MOU

Implementation

➤ Responsibilities of Exchange

Related to Brokers

➤ Exchanges Obligations

➤ MOU Signatory Incentives

➤ Confidentiality

➤ Disputes Settlement

➤ Investors Activity Scope in the
Foreign Exchange



Monitoring of the MMOU Implementation

To monitor the MMOU implementations, the Exchanges shall:

- Provide the list of Brokers, which are eligible to conclude MMOU with the Foreign Broker, to the Foreign Exchange during 60 days after signing the MMOU or the period mentioned in the MMOU.
- Revise the related Rules and Regulations of the Exchange, Brokers, and securities trading in 180 days after signing the MMOU or the period mentioned in the MMOU.



Responsibilities of Exchange Related to Brokers (1)

The main responsibilities of the Exchanges toward Brokers are as followed:

- Issuing the necessary license for the operation of Brokers under the conditions of MMOU.
- Ratification of the required Rules and Regulations for the Brokers' activities.
- Prioritizing the brokers' infringement investigation, resulted from breach of Rules and Regulations or the MMOU's conditions.
- Close and precise short-term supervisions on the Brokers' operations.



Responsibilities of Exchange Related to Brokers (2)

- Providing the required facilities and access for the Brokers in the shortest period of time.
- In the condition that any of the Brokers commits important violations, which may endanger Investors profits, or forbid the Broker to accomplish its duties, or disqualify it from the Exchanges' preconditions, the Exchange is obliged to shortly announce it to the Foreign Exchange.
- The amount and kind of guarantee for securing the Brokers operation may be announced, in case.
- Issuing the receipt certificate of the guarantees in the Brokers agreement with Foreign Broker.



Exchanges Obligations (1)

The main obligations of the Exchanges toward the Foreign Exchange are as followed:

- Brokers and human resources training in order for the acquaintance of the existing trading Rules and Regulations and dispute settlement, based on MMOU's proposed timetable.
- Providing training for the trading system and securities trading Rules and Regulations.
- Providing training for money laundry acts and Brokers, Exchange and banking system approaches against it.
- Publishing monthly reports of the activities and the amount of investment subject to the MMOU.



Exchanges Obligations (2)

- Promoting international standards and performing effective monitoring on the securities transactions.
- Facilitating the bilateral or multilateral cooperation among Brokers, and increasing markets' integrity, as well as, efficient prosecution of the contraventions.
- Holding annual meetings for reporting the Brokers' activities, market conditions, and generally, the implementation method of the MMOU, as well as, making required amendments.
- Facilitating exchange of information.
- Disseminating and clarifying about trading fees, including Broker's fee, tax, ...



MMOU Signatory Incentives

- IDB's financial supports to implement development projects.
- IDB's financial and non-financial supports to train human resources.
- OIC member states' stock exchanges counsel.
- IDB's free advisors' services.
- Free and no-priority use of library sources.



Investors Activity Scope in the Foreign Exchange

11-1 Regarding the existing Rules and Regulations, the tradable securities and products are to be agreed on in the MMOU.

11-2 If any restrictive regulation exists, the maximum amount of investment in each company or sector shall be resolved.

11-3 The financial institutions, including investment counselors, investment funds and rating agencies, which are available to provide their services to the brokers and investors, may be introduced.



The Way Forward

- Establishing a “legal and technical committee” for following the implementing process of order routing
- To determine the candidate exchanges to start the linkage
- To provide related information and access with the committee
- To introduce top 5 brokerage or securities companies of each member exchange on the OIC web site with their contact number
- Introducing OIC Linkage on the OIC web site and explaining the pros and cons of it for joining the interested exchanges.



Clearing & Settlement in SAMIP



OUTLINE

- Review
 - Challenges in Int. Clearing & Settlement
 - SAMIP Review
- ICF: International Clearing Fund
 - Introduction to ICFv2
 - ICFv2 Architecture
 - ICFv2 Planes



Linkage as a clearing & settlement problem

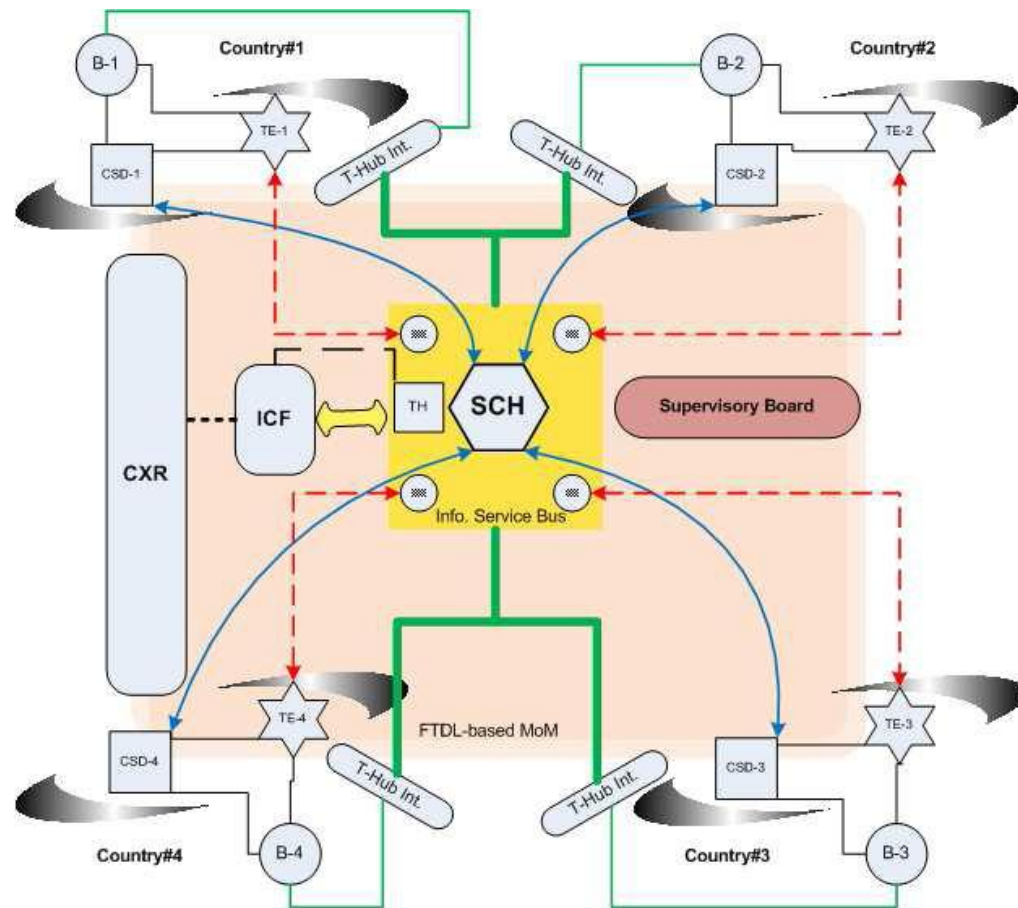
- Best practices and academic researches
 - Giovanni researches
 - Linkage Market
- Complex nature of clearing and clearing and settlement
 - Different role players
 - Different rules and procedures
 - Verity of parameters



SAMIP-Review of Building Blocks

- Local CSDs
- Local Trading/Matching Engine
- CXR (A Currency Exchange Market)
- SCH (SAMIP Clearing House)
- ICF (International Clearing Fund)
- FTDL (financial Transaction Description Language)

SAMIP- Big Picture



B: Broker
TE: Trade (Matching) Engine
CSD: Central Securities Depository
TH: Trading Hub info. Exchange
SCH: SAMIP Clearing House
TIA: Trading Info. Agent (FTDL Supplier)
ICF: International Clearing Fund
CXR: Currency Exchange Reference



where order Routing stands

- Clearing, Settlement & Registry is the basis for trading
- International trading requires international CSD operations, arrangements and infra-structure
- Orders might be transferred using mail, tel., etc. The best method is routing MMTP messages
- The major problem of interlinking markets is to perform international CSD operations effectively
 - Cash and Security Clearing
 - Registry, Supervisory and Corporate Action
- SAMIP uses MMTP order routing on it's trading plane while emphasizing on CSD interlinking.



Advantages of SAMIP

- Securities are exchanged in their home exchange
 - No arbitration
- Reducing settlement risk using FTDL
- Handling currency exchange problems
 - Non-exchangeable currencies (proxy, indigenous market, etc.)
- Handling currency exchange rate fluctuation risk
- Hierarchical monitoring / supervisory
- Customized policy enforcement compliance
- etc. (refer to the booklet)



ICF Challenge for SAMIP

- Non exchangeable currencies
- Different proxy currencies
- Need to cope with policies
- Real-time fluctuating currency exchange rates
- Need for cooperating central banks in ICFv1
 - Handled in ICFv2

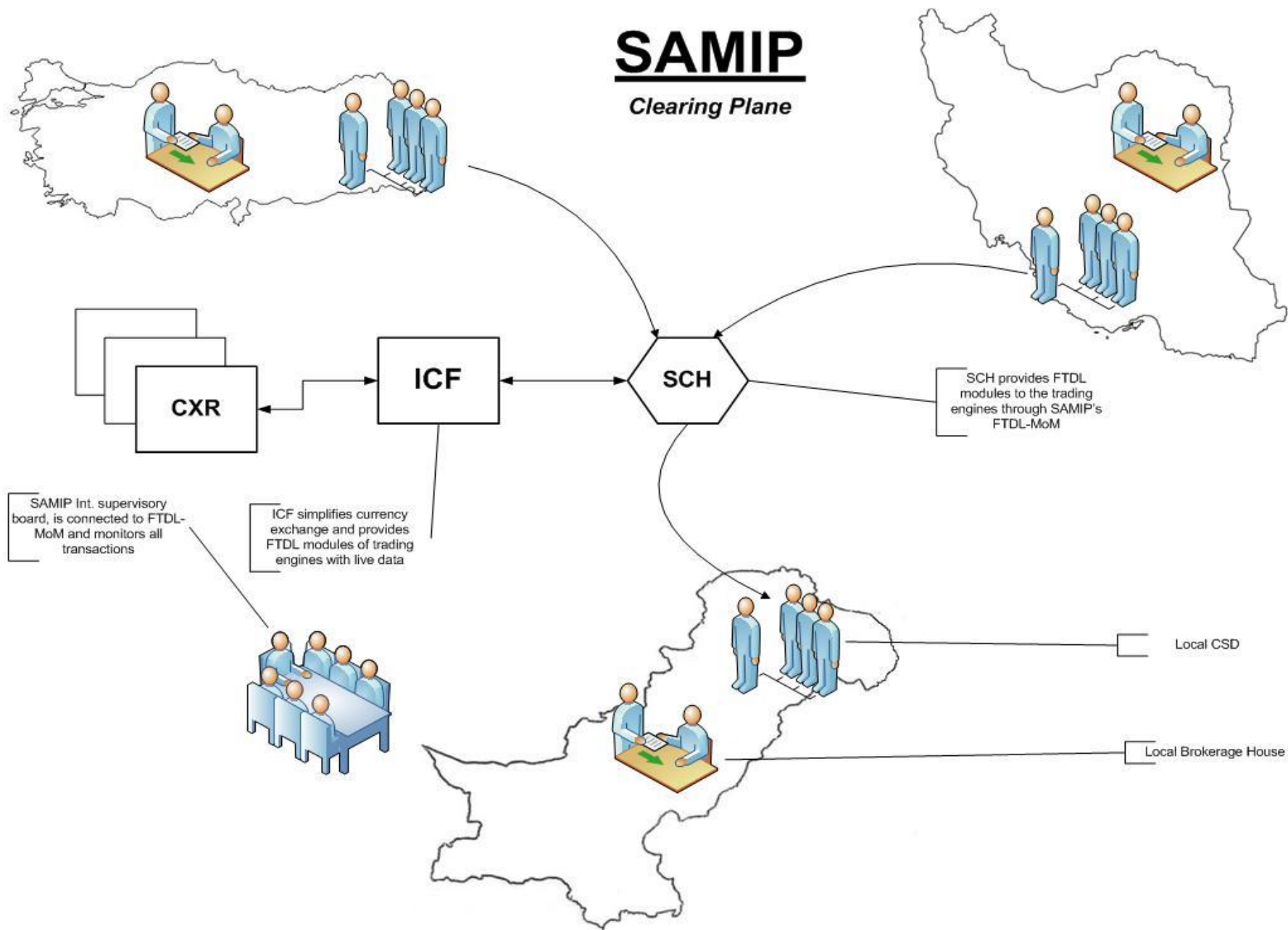


ICF version 2

The International Clearing Fund

SAMIP

Clearing Plane





Introduction to ICF

- Cash clearing role
- Managing different settlement period
- Handling currency exchange problems for
 - Non exchangeable currencies
 - Currencies with limited exchange chance
 - Exchange policies
- Efficient cash clearing backend for SAMIP and other linkages



Challenges of international cash clearing

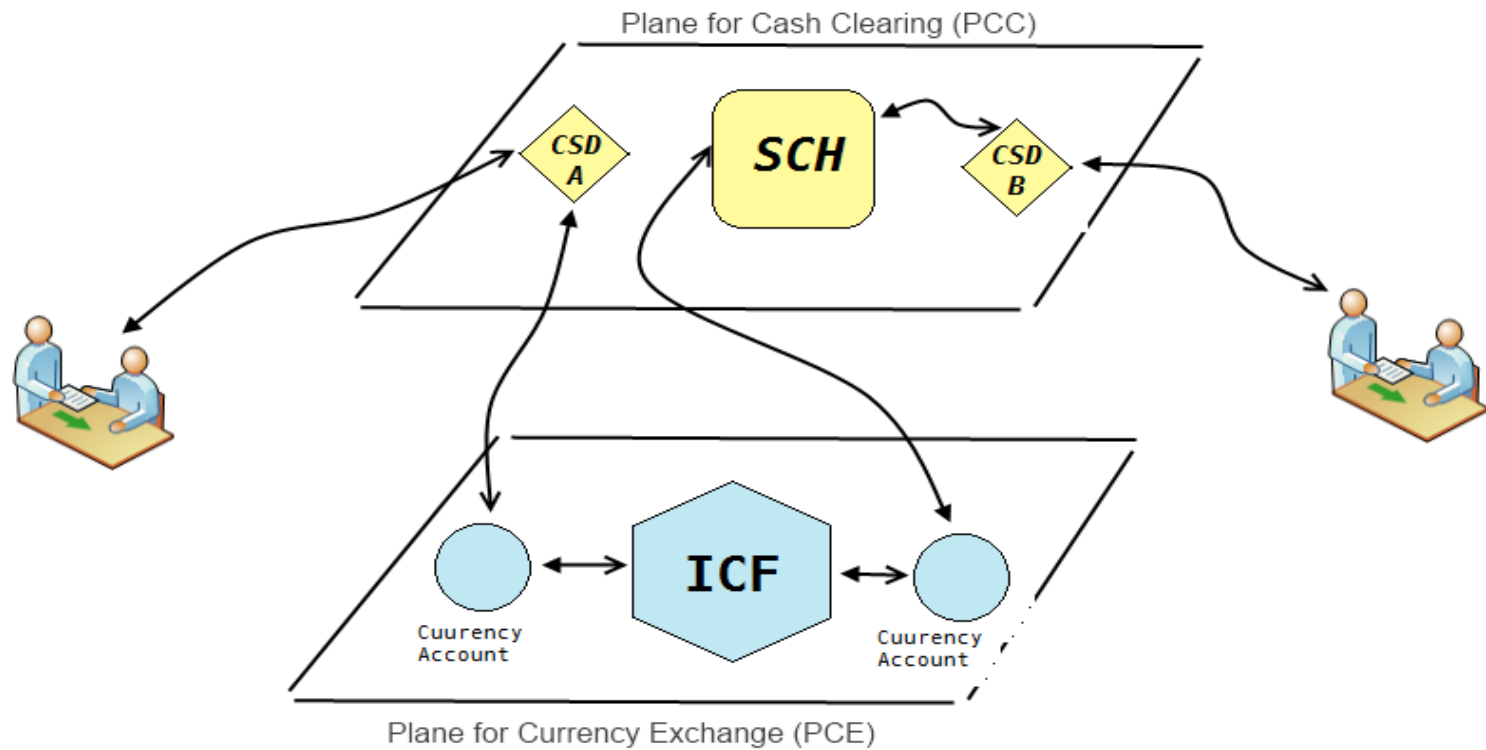
- Money exchange challenges in terms of
 - Volume Constraint
 - Currency Exchange rate volatility
- Resources for ICF and motivations of funding in ICF
- ICF cost overhead
- Gross or Net Clearing and settlement
- The Gap between different settlement periods
- Necessity to central banks or not



ICFv2 Architecture

- Currency Exchanges network
 - Branches of ICF
 - Delegates of ICF
- Link joining configurations
 - Dedicated to each participant
 - Dedicated to Trade

ICFv2 Planes





Plane for Cash Exchange(PCE)

- Gross or Net?
- Adaptive Approach
 - A Specific Interval for Clearing
 - Guaranty for Currency Exchange rate fluctuation
 - Making benefit of netting in specific intervals for currency exchange fees
 - Proxy currency or exchangeable currencies

Plane for Cash Exchange(PCE) cont.

- Simulation calculation

if {

- Net1, Net2, Net3,, Net24=Netting Period=x
- &
- P= Probability of performing real netting=y

}

- Extreme of $f(p,q,x)$



Plane for Cash Clearing(PCC)

- Challenges
 - Settlement Periods
 - T+0 trade confirmation
 - Lack of customized derivatives contracts

Plane for Cash Clearing(PCC) cont.

Scenarios

Settlement period for:		if	Cases
Buyer	Seller		
T+B	T+S	–	S=B=0 S=B>0
T+B	T+S	B>S	S=0 S>0
T+B	T+S	B<S	B=0 B>0

Determinants

V=volume of Trade

T+S=Seller settlement period

T+B=Buyer settlement period

Cs=currency of seller

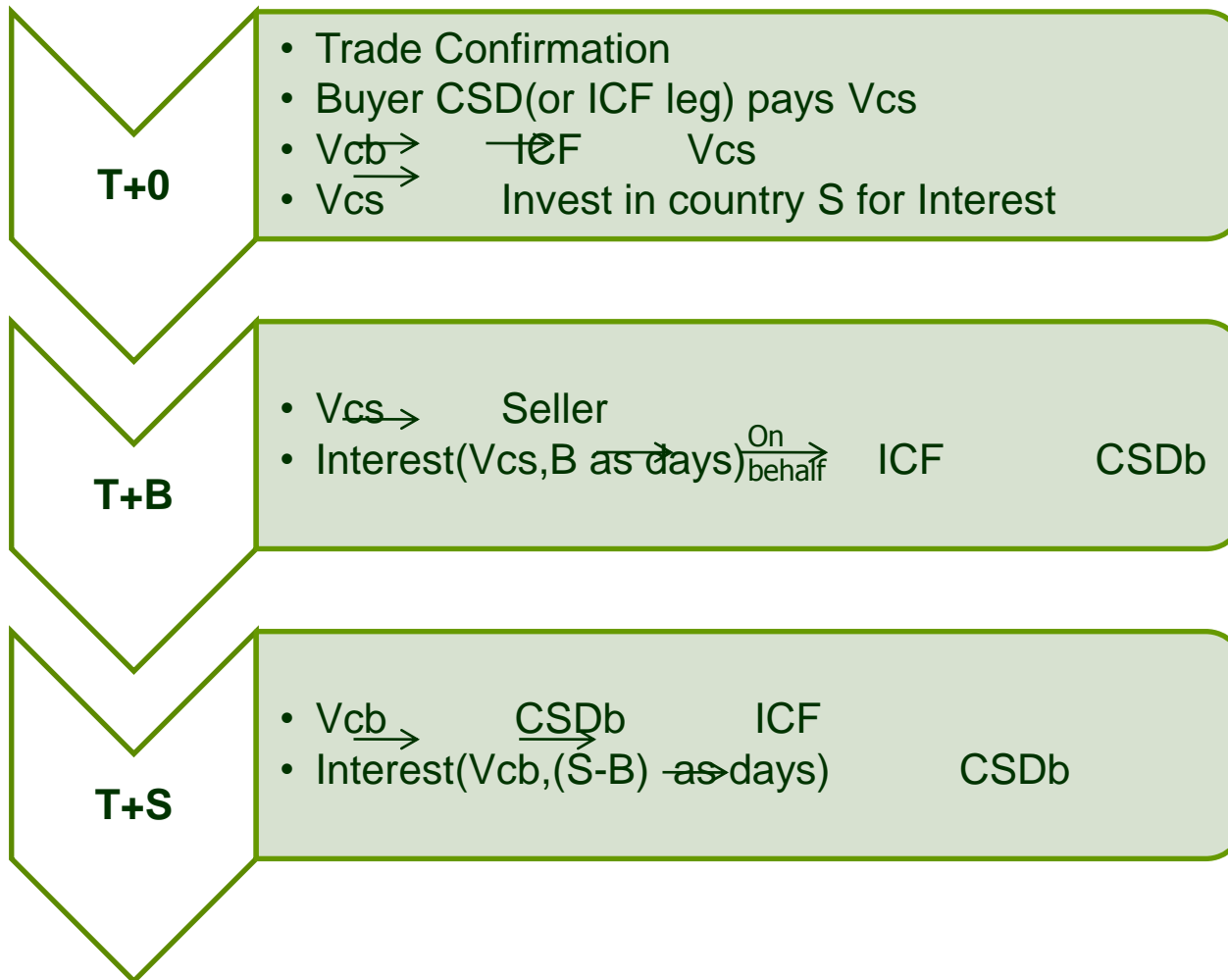
Cb=currency of buyer

Criteria:

T+0 settlement period in SAMIP

Plane for Cash Clearing(PCC) cont.

Example: if $S > B > 0$



Determinants

V =volume of Trade
 V_{cb} =Volume of Buy
 V_{cs} =Volume of sell

$T+S$ =Seller settlement period

$T+B$ =Buyer settlement period

C_s =currency of seller

C_b =currency of buyer

Criteria:
 $T+0$ settlement period in SAMIP

Plane for Cash Clearing(PCC) cont.

Example: if $S=B>0$

T+0

- Trade Confirmation
- Buyer CSD pays V_{cs} to seller CSD
- Interest(V_{cs}, B as days) CSDb \rightarrow ICF \rightarrow
- Interest(V_{cb}, S as days) CSDs \rightarrow ICF \rightarrow ~~ICF~~ on behalf

T+B
T+S

- $V_{cs} \rightarrow$ Seller

Determinants

V =volume of Trade
 V_{cb} =Volume of Buy
 V_{cs} =Volume of sell

$T+S$ =Seller settlement period

$T+B$ =Buyer settlement period

C_s =currency of seller

C_b =currency of buyer

Criteria:
 $T+0$ settlement period in SAMIP



Joint optimization scenarios

- The optimum point of both planes
- Considering two basic factors simultaneously
 - Settlement Periods difference
 - Currency exchange



Conclusion and Road Map

- ICFv2 addresses clearing challenges efficiently bearing almost no risk
 - Central banks do not play any role in this version of ICF
 - Money Exchange constraints is included
-
- We are performing computerized simulations on millions of different stochastic scenarios to improve the model's efficiency.
 - We are seeking bi/multi-lateral cooperation to build an effective linkage