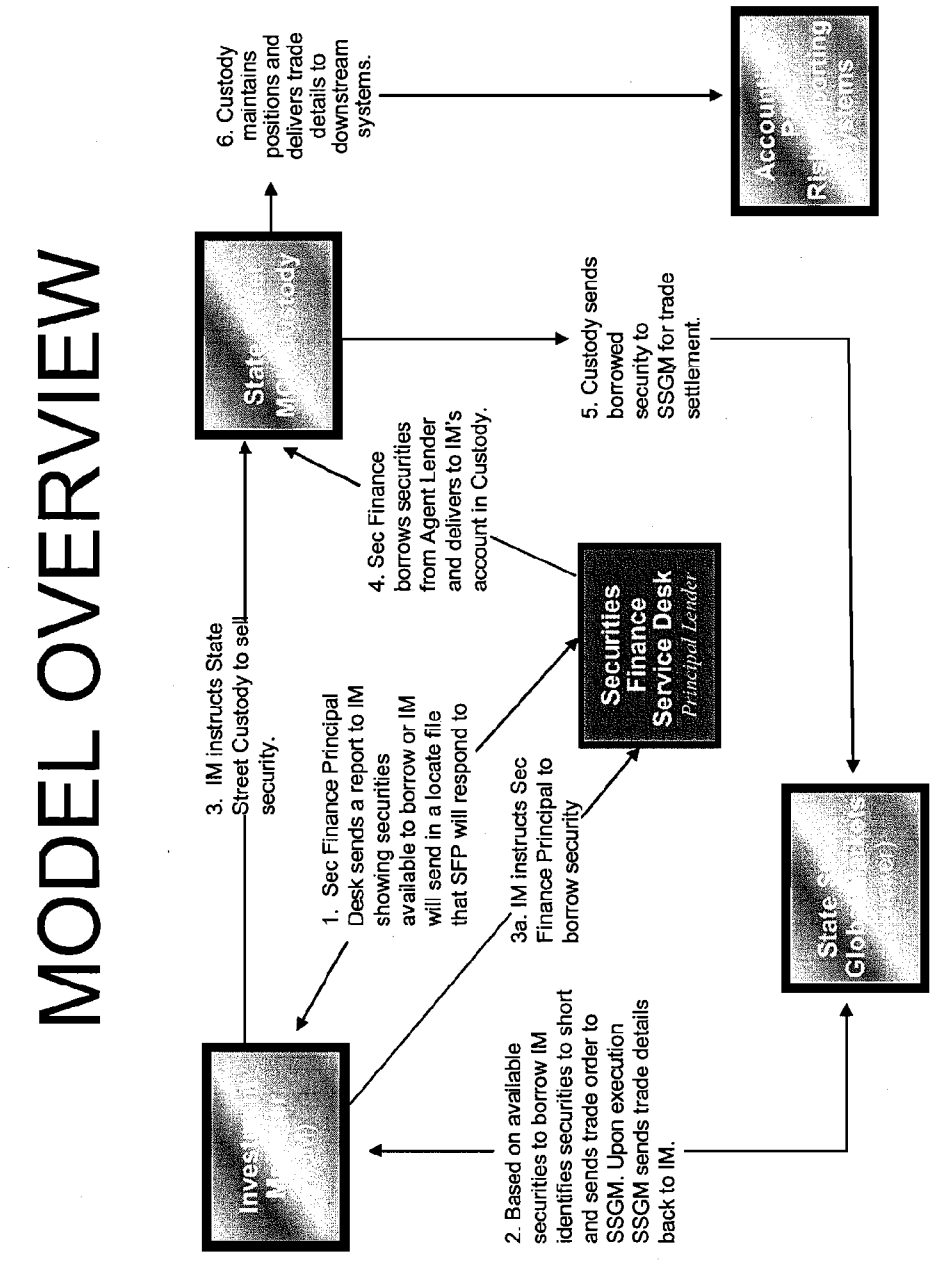
MODEL OVERVIEW
Securities Finance Service Desk
Principal Lender
1. Sec Finance Principal Desk sends a report to IM showing securities available to borrow or IM will send in a locate file that SFP will respond to
2. Based on available securities to borrow IM identifies securities to short and sends trade order to SSGM. Upon execution SSGM sends trade details back to IM.
3. IM instructs State Street Custody to sell security.
3a. IM instructs Sec Finance Principal to borrow security
4. Sec Finance borrows securities from Agent Lender and delivers to IM's account in Custody.
5. Custody sends borrowed security to SSGM for trade settlement.
6. Custody maintains positions and delivers trade details to downstream systems.

Fig.1

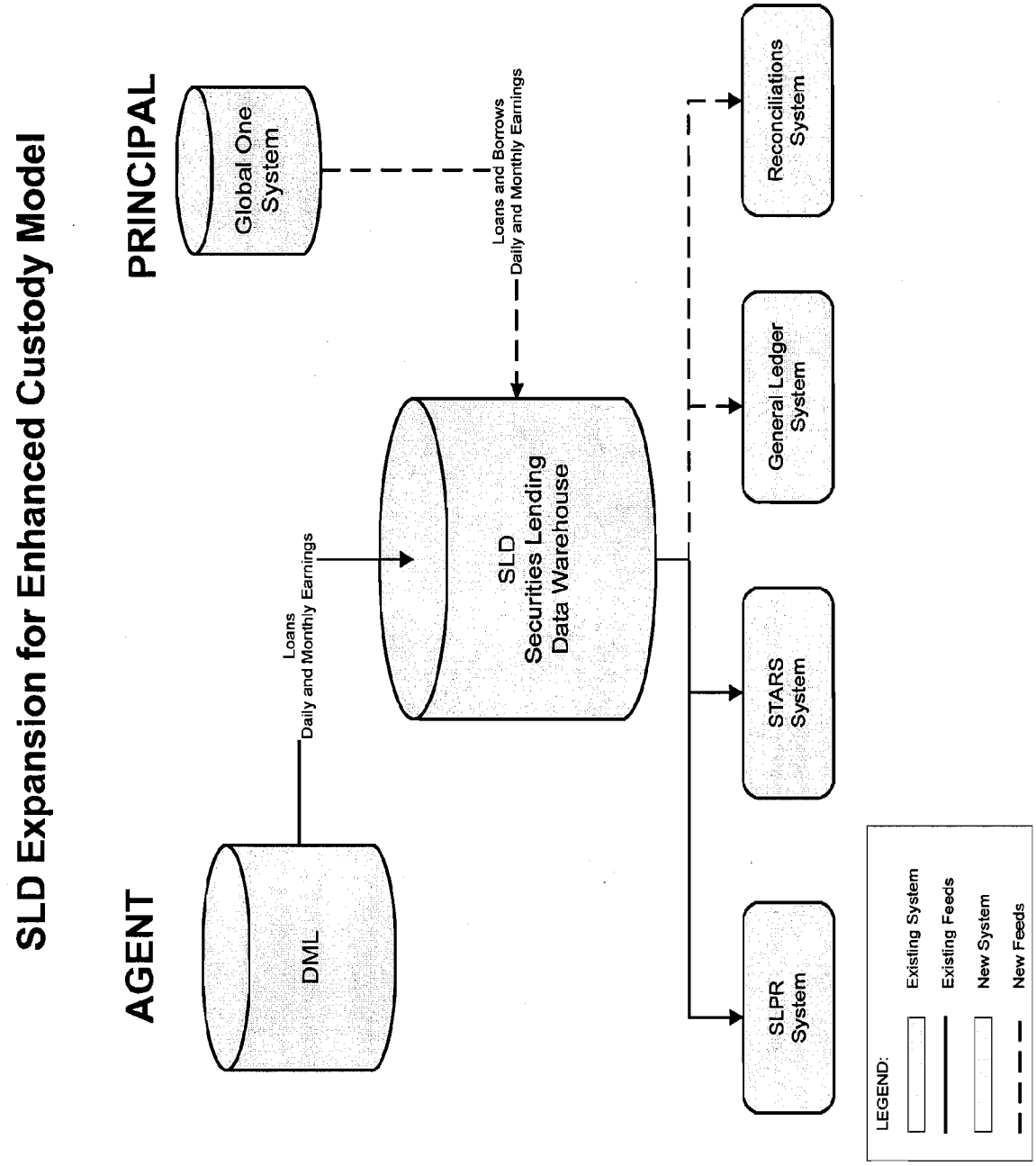
SLD Expansion for Enhanced Custody Model
AGENT
PRINCIPAL
DML
Global One System
Loans
Daily and Monthly Earnings
Loans and Borrows
Daily and Monthly Earnings
SLD
Securities Lending
Data Warehouse
SLPR System
STARS System
General Ledger System
Reconciliations System
LEGEND:
Existing System
Existing Feeds
New System
New Feeds

Fig.2

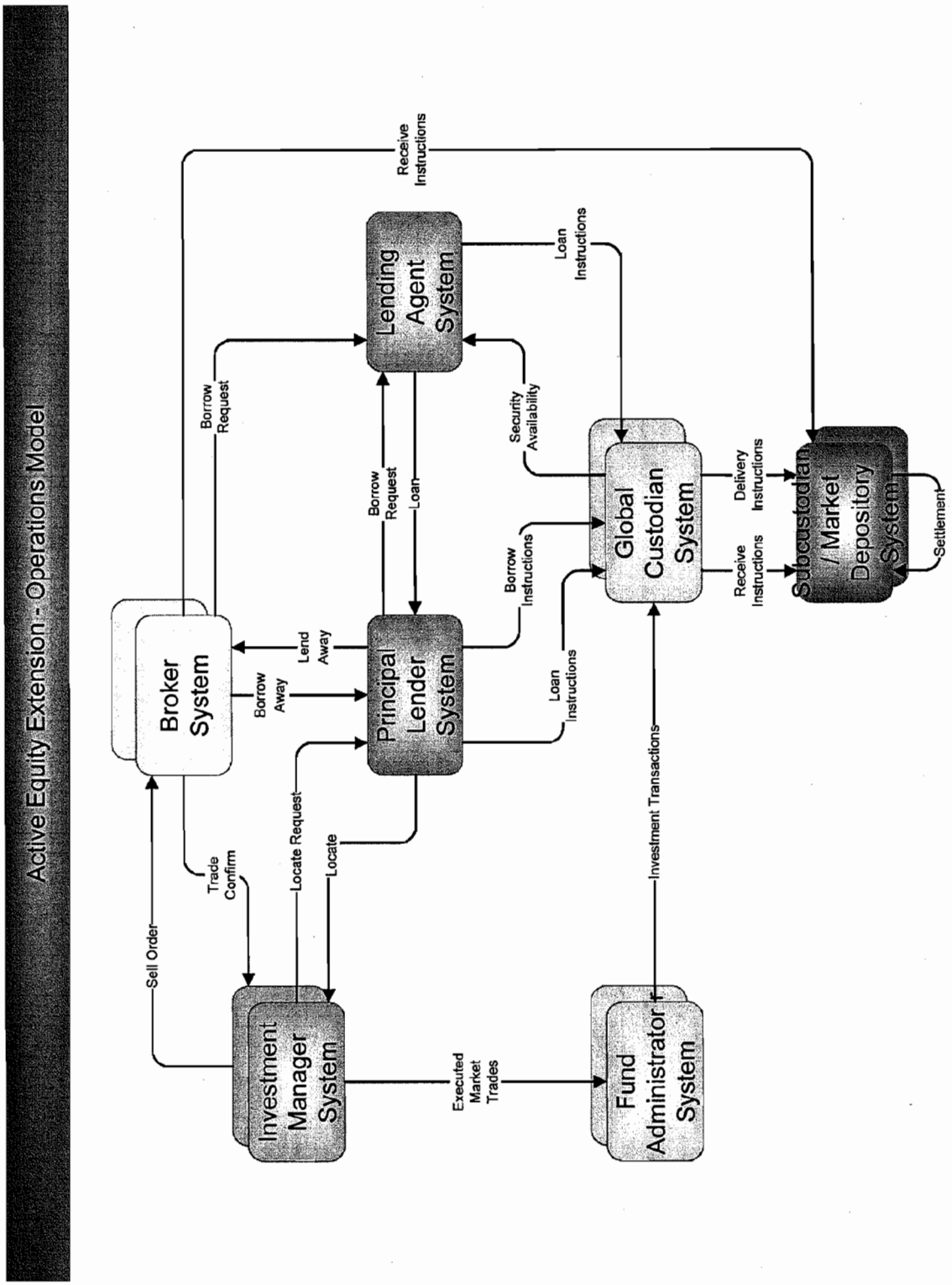
Active Equity Extension - Operations Model
Broker System
Investment Manager System
Principal Lender System
Lending Agent System
Global Custodian System
Subcustodian /Market Depository System
Fund Administrator System
Receive Instructions
Borrow Request
Loan Instructions
Security Availability
Borrow Request
Loan
Borrow Instructions
Delivery Instructions
Receive Instructions
Settlement
Lend Away
Borrow Away
Loan Instructions
Sell Order
Trade Confirm
Locate Request
Locate
Investment Transactions
Executed Market Trades

Fig.3

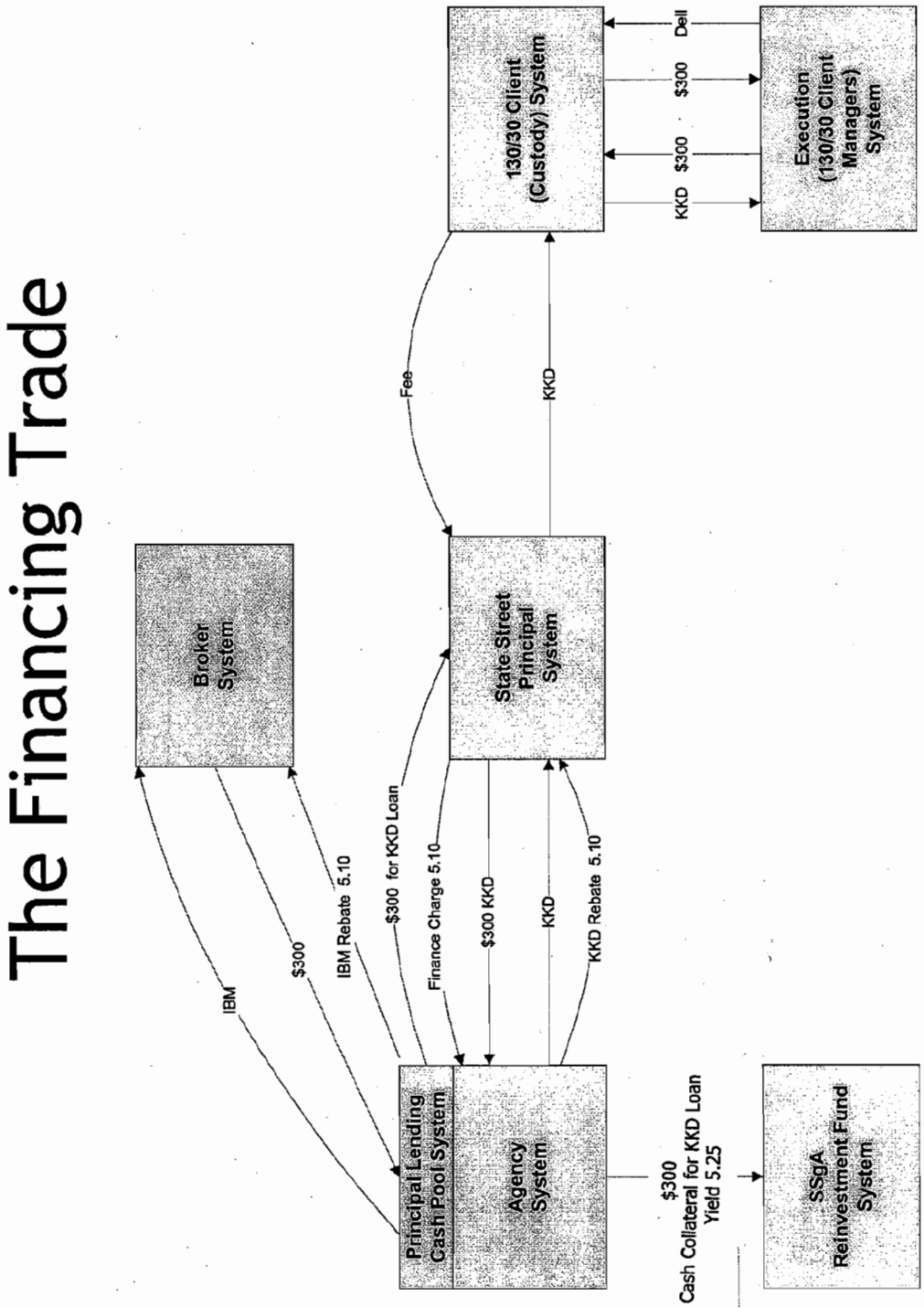
The Financing Trade
Broker System
State Street Principal System
130/30 Client (Custody) System
Execution (130/30 Client Managers) System
Principal Lending Cash Pool System
Agency System
SSgA Reinvestment Fund System
IBM
$300
IBM Rebate 5.10
$300 for KKD Loan
Finance Charge 5.10
$300 KKD
KKD
KKD Rebate 5.10
Fee
KKD
Dell
$300
$300
KKD
$300
Cash Collateral for KKD Loan
Yield 5.25

Fig.4

# The 130/30 Concept

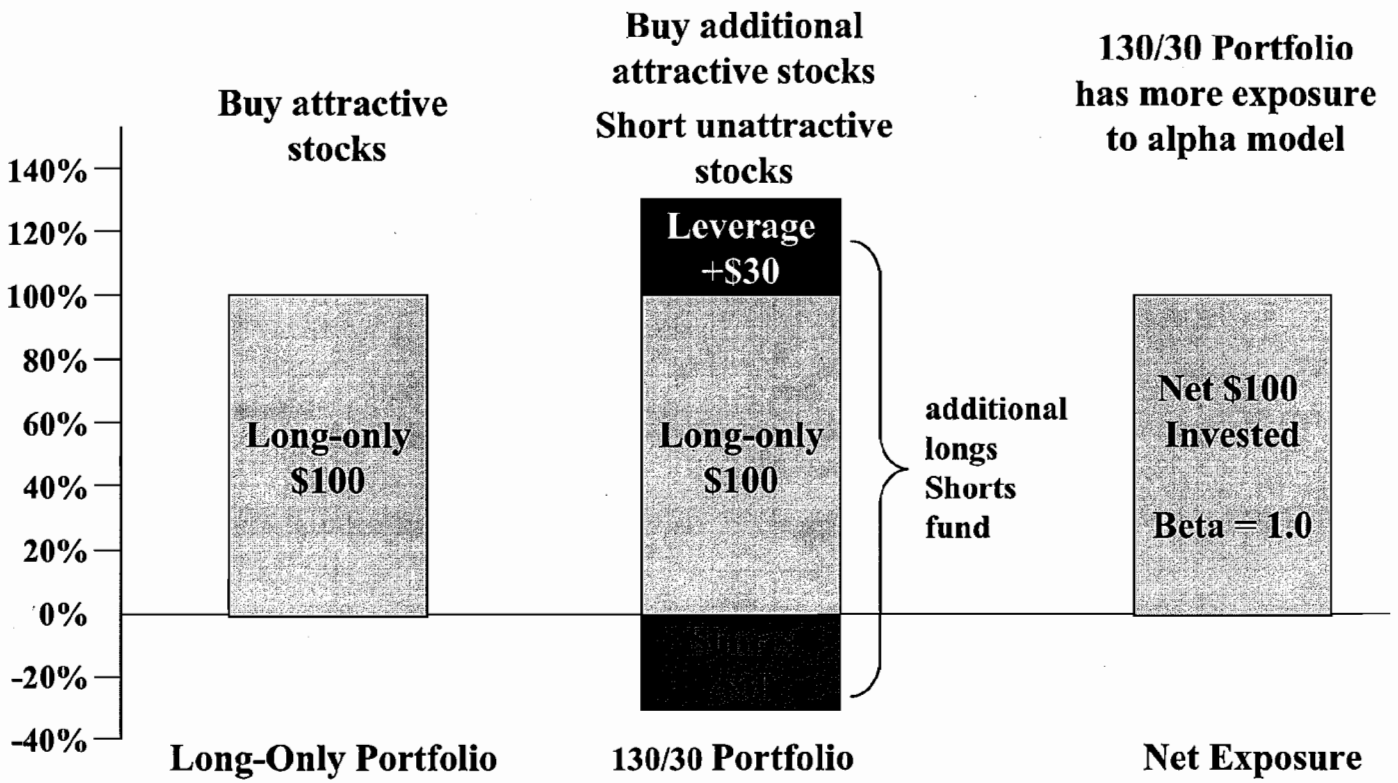


Fig.5

# Lending and Borrowing Model

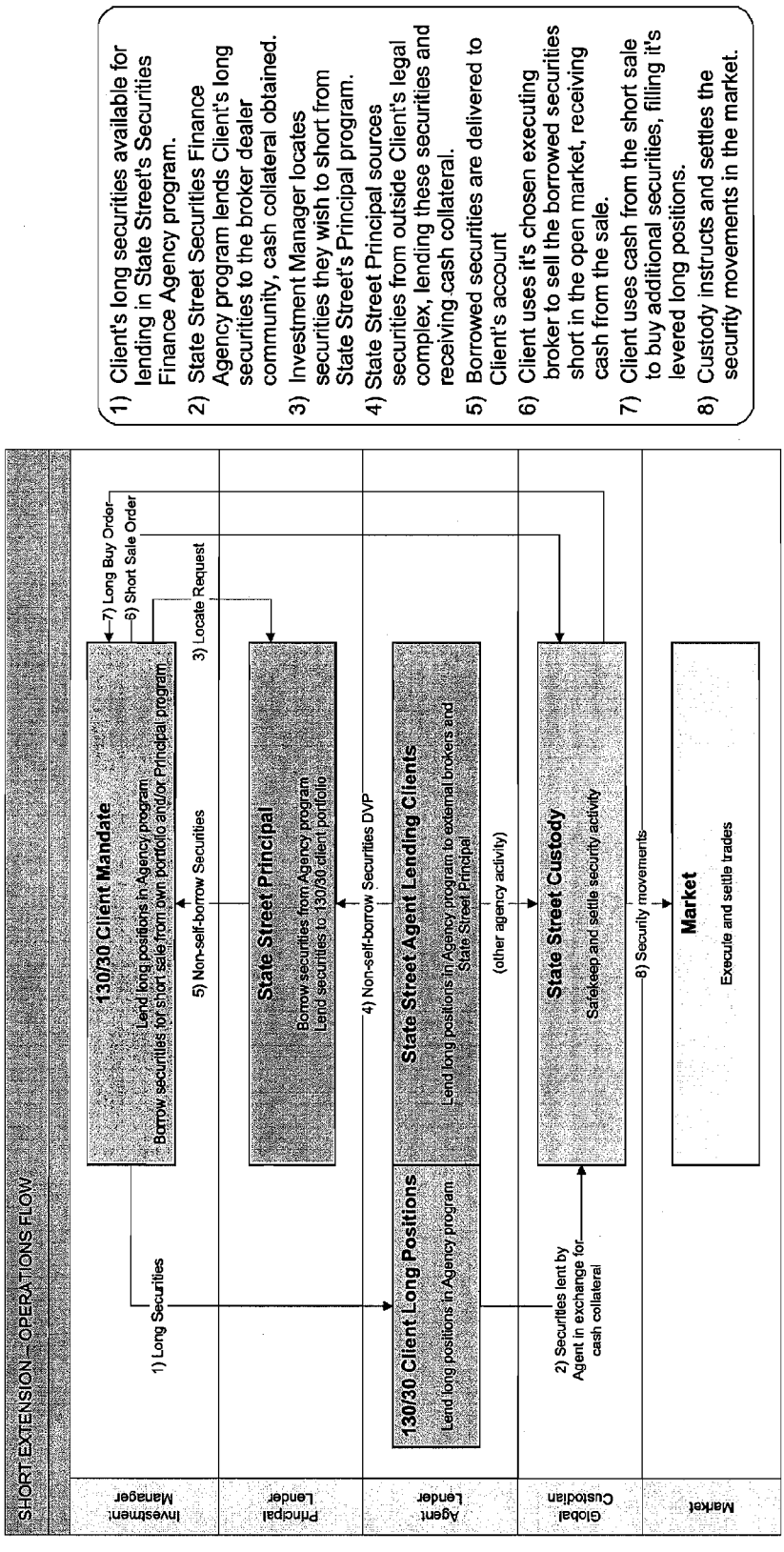


Fig.6

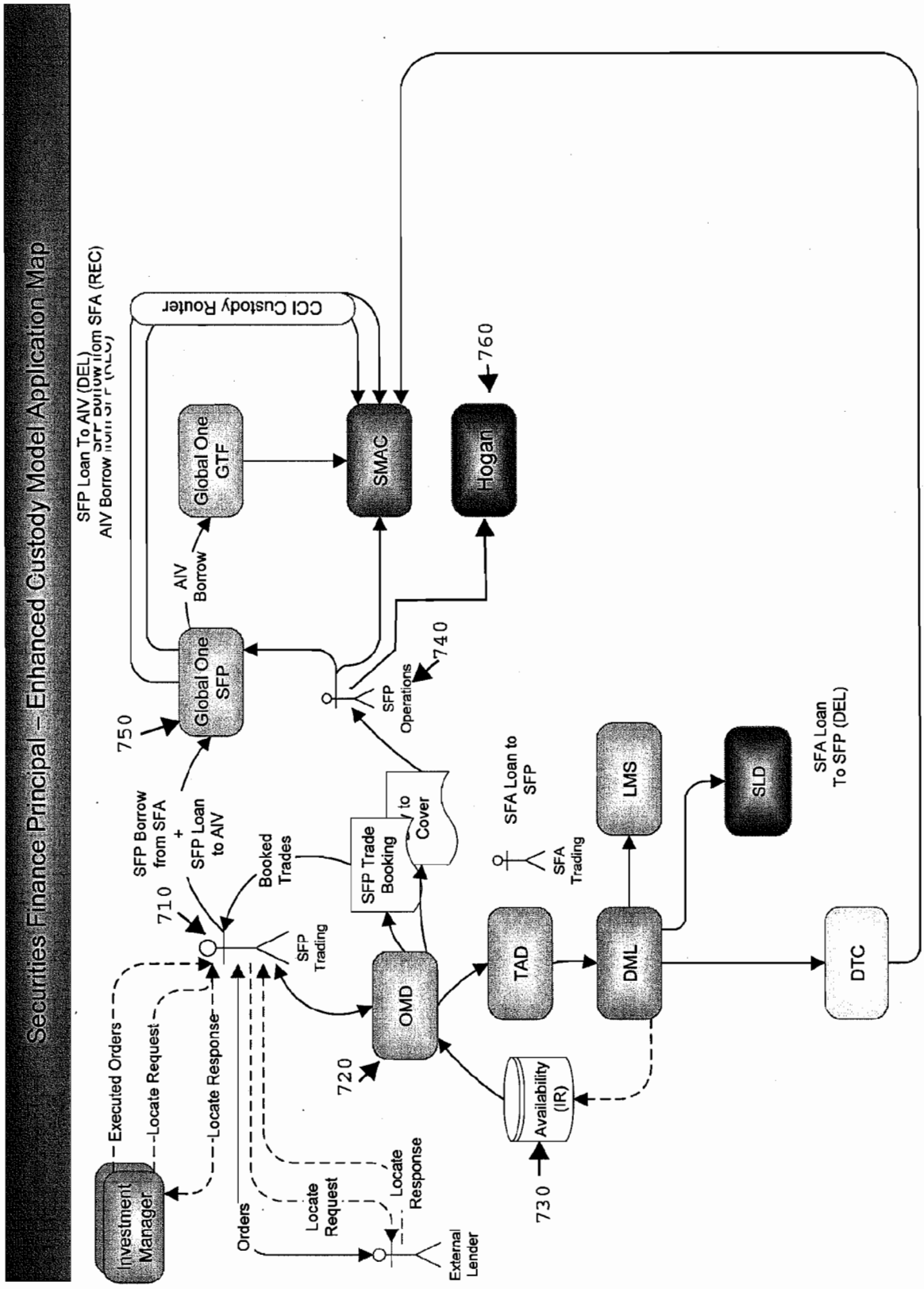
Securities Finance Principal – Enhanced Custody Model Application Map
Investment Manager
Executed Orders
Locate Request
Locate Response
Orders
Locate Request
Locate Response
External Lender
SFP Borrow from SFA + SFP Loan to AIV
710
SFP Trading
Booked Trades
SFP Trade Booking
Cover
OMD
720
Availability (IR)
730
TAD
SFA Loan to SFP
SFA Trading
DML
LMS
SLD
DTC
SFA Loan To SFP (DEL)
SFP Operations
740
SMAC
Hogan
760
Global One SFP
750
AIV Borrow
Global One GTF
CCI Custody Router
SFP Loan To AIV (DEL)
AIV Borrow from SFA (REC)

Fig.7

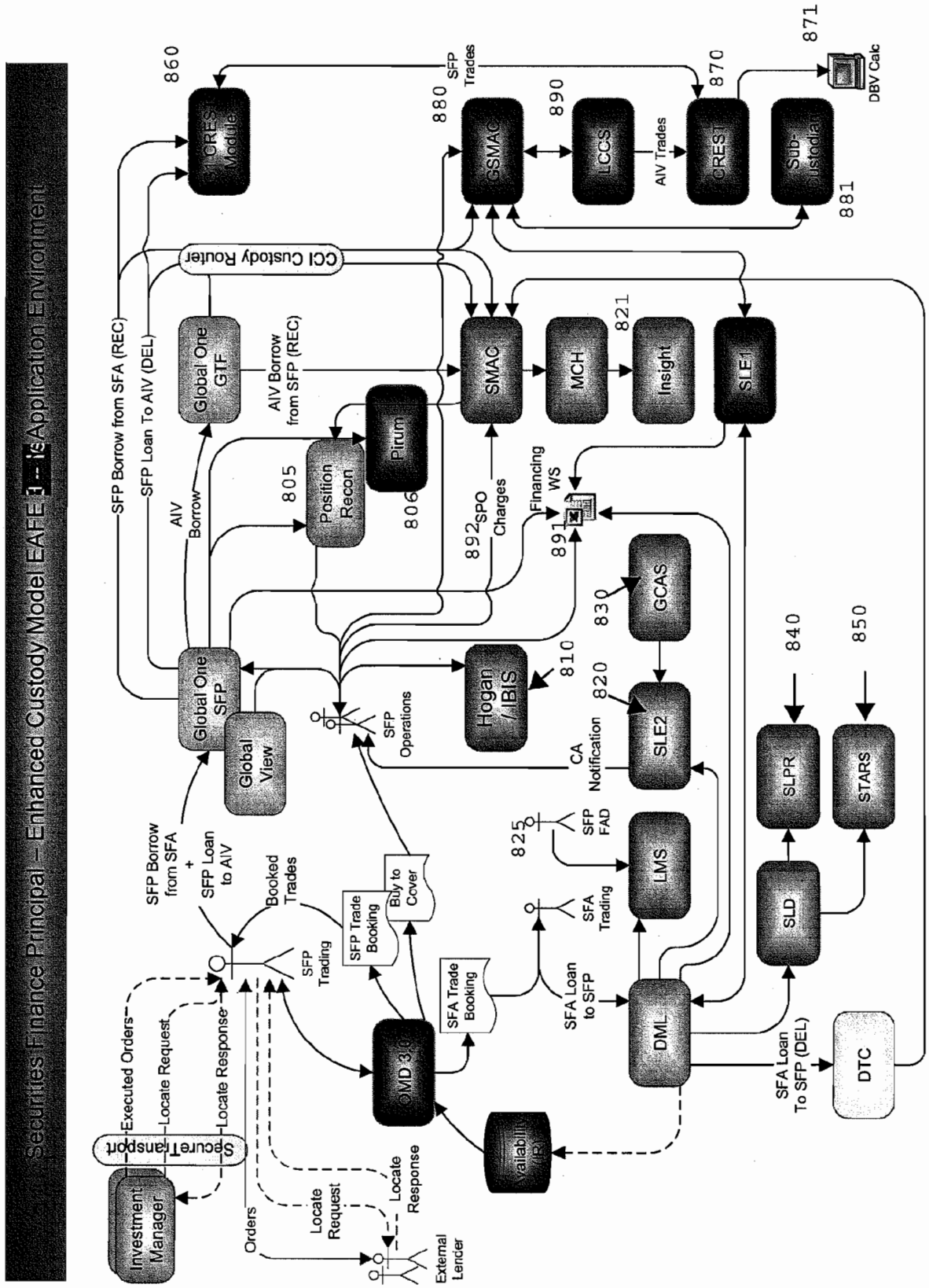
Securities Finance Principal – Enhanced Custody Model EAFE – Application Environment
Investment Manager
SecureTransport
Executed Orders
Locate Request
Locate Response
Orders
External Lender
Locate Request
Locate Response
SFP Borrow from SFA
+
SFP Loan to AIV
Booked Trades
SFP Trading
SFP Trade Booking
Buy to Cover
SFA Trade Booking
SFA Loan to SFP
DML
SFA Trading
SFP FAD
LMS
CA Notification
SLE2
820
GCAS
830
Hogan / IBIS
810
SFP Operations
Global One SFP
Global View
AIV Borrow
SFP Borrow from SFA (REC)
SFP Loan To AIV (DEL)
Global One GTF
AIV Borrow from SFP (REC)
Pirum
806
Position Recon
805
CCI Custody Router
SMAC
MCH
821
Insight
SLE1
SPO Charges
892
Financing WS
891
GSMAC
880
SFP Trades
LCCS
890
AIV Trades
CREST
870
Sub-Custodian
881
DBV Calc
871
SLD
SLPR
840
STARS
850
DTC
SFA Loan To SFP (DEL)

Fig.8

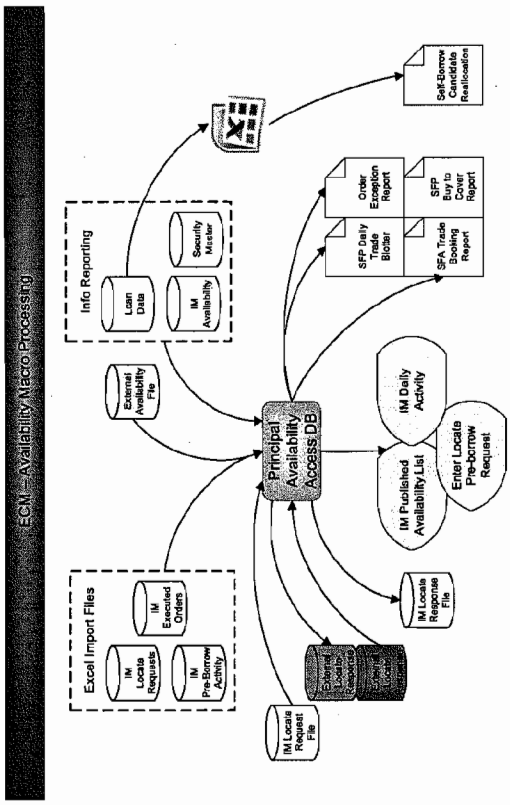
ECM – Availability Macro Processing
Excel Import Files
IM Locate Requests
IM Executed Orders
IM Pre-Borrow Activity
External Availability File
Info Reporting
Loan Data
IM Availability
Security Master
Principal Availability Access DB
IM Locate Request File
External Locate Response
External Locate Response
IM Locate Response File
IM Published Availability List
IM Daily Activity
Enter Locate Pre-borrow Request
SFP Daily Trade Blotter
Order Exception Report
SFA Trade Booking Report
SFP Buy to Cover Report
Self-Borrow Candidate Reallocation

Fig.9

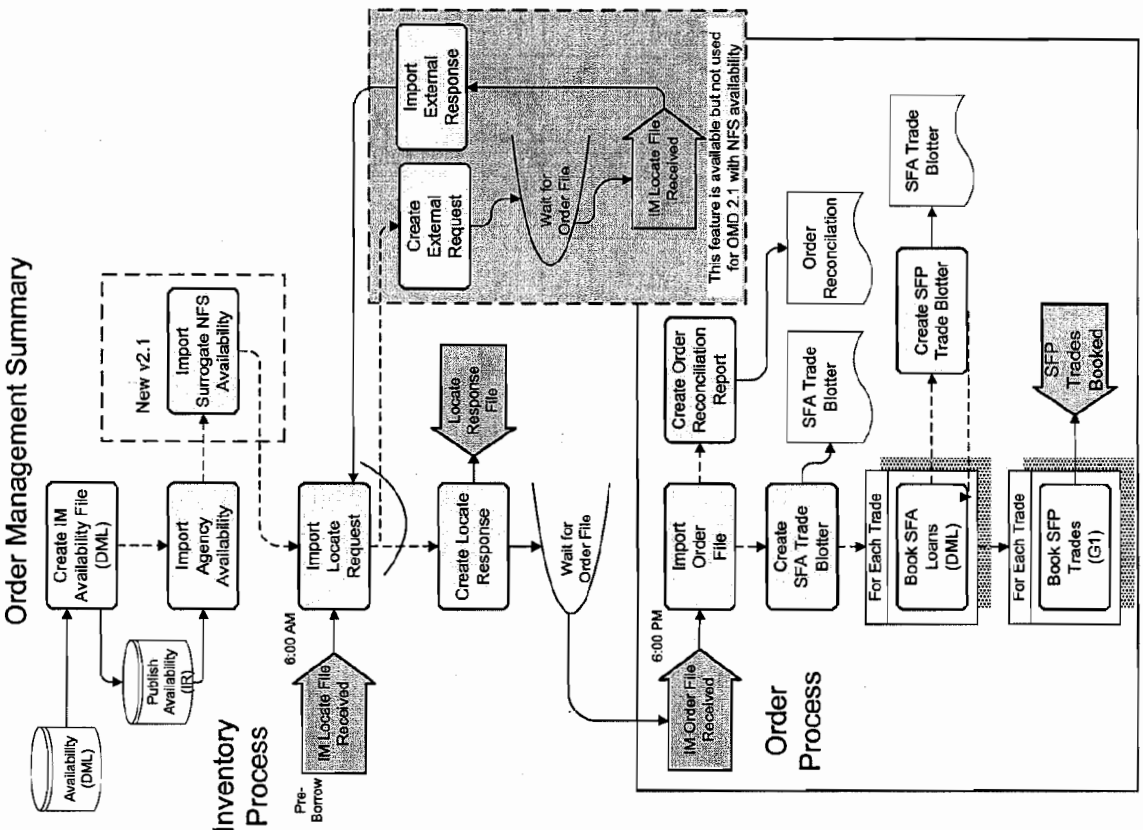
Order Management Summary
Availability (DML)
Create IM Availability File (DML)
Publish Availability (IR)
Import Agency Availability
New v2.1
Import Surrogate NFS Availability
Inventory Process
Pre-Borrow
6:00 AM
IM Locate File Received
Import Locate Request
Create Locate Response
Locate Response File
Wait for Order File
Create External Request
Wait for Order File
IM Locate File Received
Import External Response
This feature is available but not used for OMD 2.1 with NFS availability
6:00 PM
IM Order File Received
Import Order File
Create SFA Trade Blotter
SFA Trade Blotter
Create Order Reconciliation Report
Order Reconciliation
For Each Trade
Book SFA Loans (DML)
Create SFP Trade Blotter
SFA Trade Blotter
For Each Trade
Book SFP Trades (G1)
SFP Trades Booked
Order Process

Fig.10

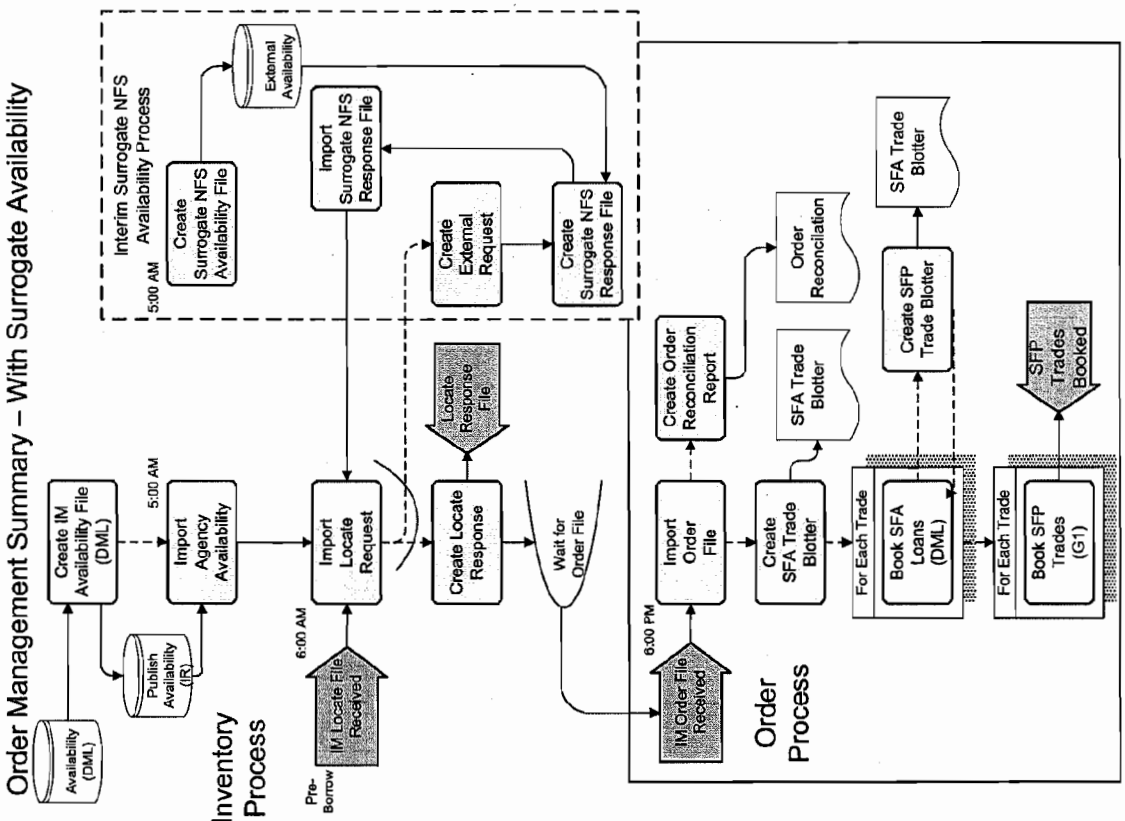
Order Management Summary – With Surrogate Availability
Availability (DML)
Create IM Availability File (DML)
Publish Availability (IR)
Inventory Process
5:00 AM
Import Agency Availability
Pre-Borrow
6:00 AM
IM Locate File Received
Import Locate Request
Interim Surrogate NFS Availability Process
5:00 AM
Create Surrogate NFS Availability File
External Availability
Import Surrogate NFS Response File
Create External Request
Create Surrogate NFS Response File
Locate Response File
Create Locate Response
Wait for Order File
6:00 PM
IM Order File Received
Import Order File
Create Order Reconciliation Report
Order Reconciliation
Create SFA Trade Blotter
SFA Trade Blotter
For Each Trade
Book SFA Loans (DML)
Create SFP Trade Blotter
SFA Trade Blotter
For Each Trade
Book SFP Trades (G1)
SFP Trades Booked
Order Process

Fig.11

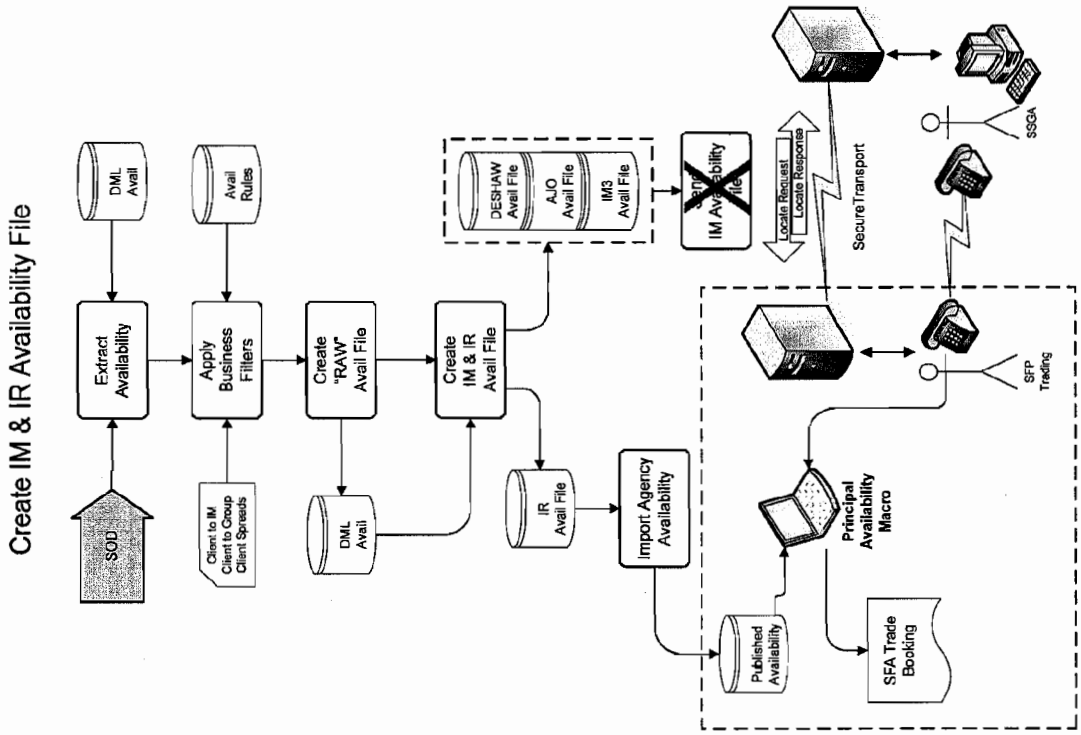
Create IM & IR Availability File
SOD
DML Avail
Extract Availability
Client to IM Client to Group Client Spreads
Avail Rules
Apply Business Filters
DML Avail
Create "RAW" Avail File
Create IM & IR Avail File
DESHAW Avail File
AJO Avail File
IM3 Avail File
IR Avail File
Import Agency Availability
Locate Request
Locate Response
SecureTransport
SSGA
SFP Trading
Principal Availability Macro
Published Availability
SFA Trade Booking

Fig.12

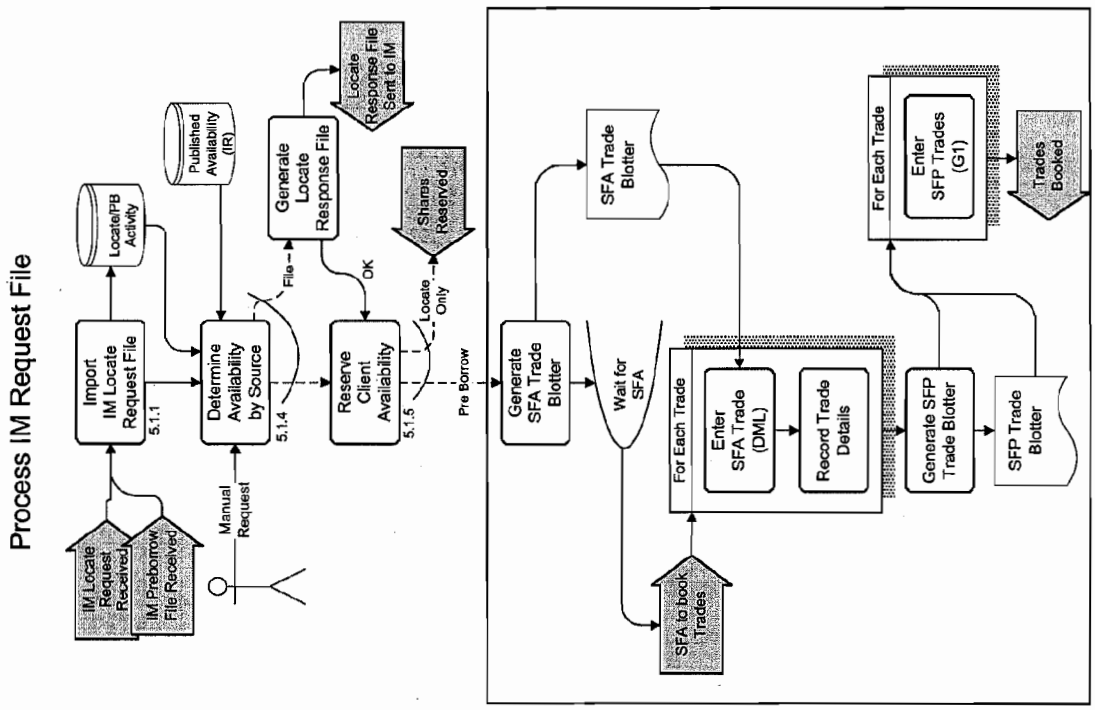
Process IM Request File
IM Locate Request Received
IM Preborrow File Received
Manual Request
Import IM Locate Request File
5.1.1
Locate/PB Activity
Published Availability (IR)
Determine Availability by Source
5.1.4
File
OK
Generate Locate Response File
Locate Response File Sent to IM
Reserve Client Availability
5.1.5
Locate Only
Shares Reserved
Pre Borrow
Generate SFA Trade Blotter
SFA Trade Blotter
Wait for SFA
SFA to book Trades
For Each Trade
Enter SFA Trade (DML)
Record Trade Details
Generate SFP Trade Blotter
SFP Trade Blotter
For Each Trade
Enter SFP Trades (G1)
Trades Booked

Fig.13

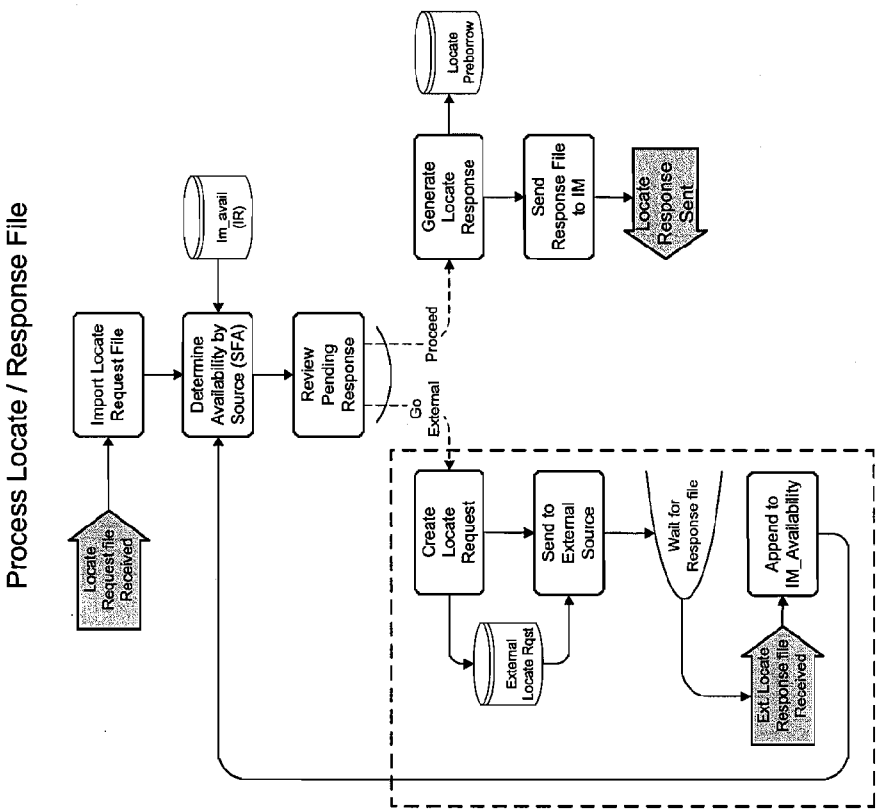
Process Locate / Response File
Locate Request file Received
Import Locate Request File
Determine Availability by Source (SFA)
Im_avail (IR)
Review Pending Response
Proceed
Go External
Generate Locate Response
Locate Preborrow
Send Response File to IM
Locate Response Sent
Create Locate Request
External Locate Rqst
Send to External Source
Wait for Response file
Ext Locate Response file Received
Append to IM_Availability

Fig.14

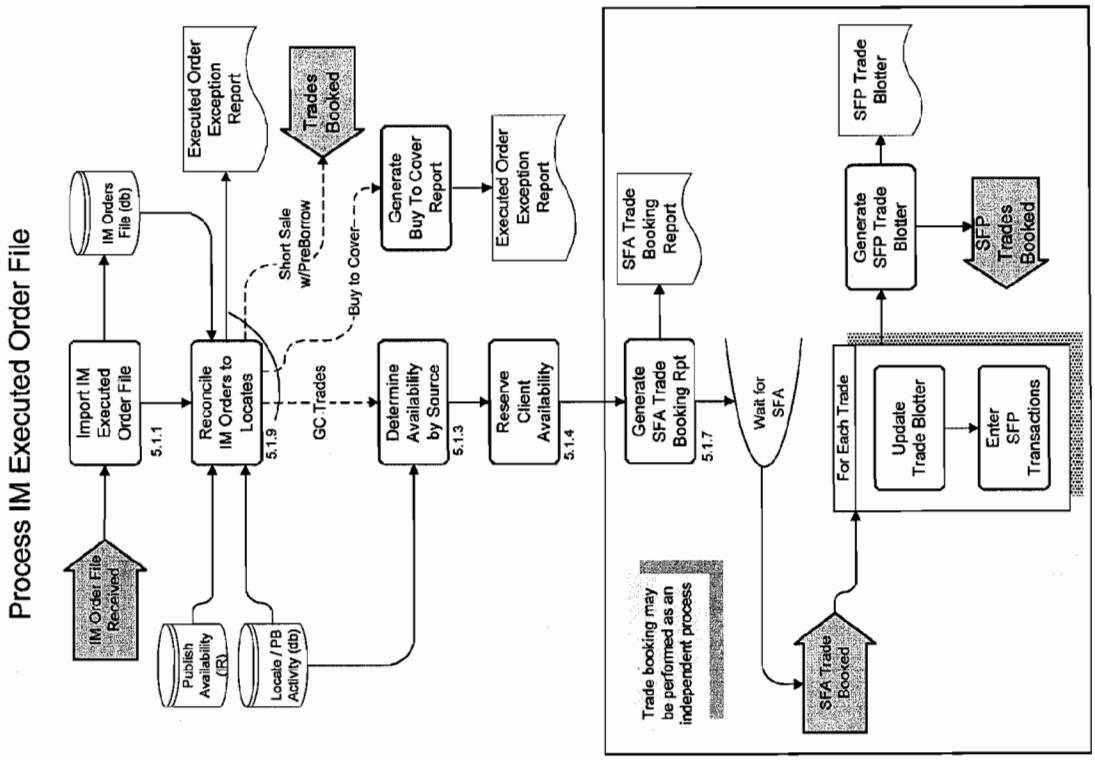
Process IM Executed Order File
IM Order File Received
Import IM Executed Order File
5.1.1
IM Orders File (db)
Publish Availability (R)
Locate / PB Activity (db)
Reconcile IM Orders to Locates
5.1.9
Executed Order Exception Report
Trades Booked
Short Sale w/PreBorrow
Buy to Cover
GC Trades
Generate Buy To Cover Report
Executed Order Exception Report
Determine Availability by Source
5.1.3
Reserve Client Availability
5.1.4
Generate SFA Trade Booking Rpt
5.1.7
SFA Trade Booking Report
Wait for SFA
Trade booking may be performed as an independent process
SFA Trade Booked
For Each Trade
Update Trade Blotter
Enter SFP Transactions
Generate SFP Trade Blotter
SFP Trade Blotter
SFP Trades Booked

Fig.15

# Application Frame Work Design

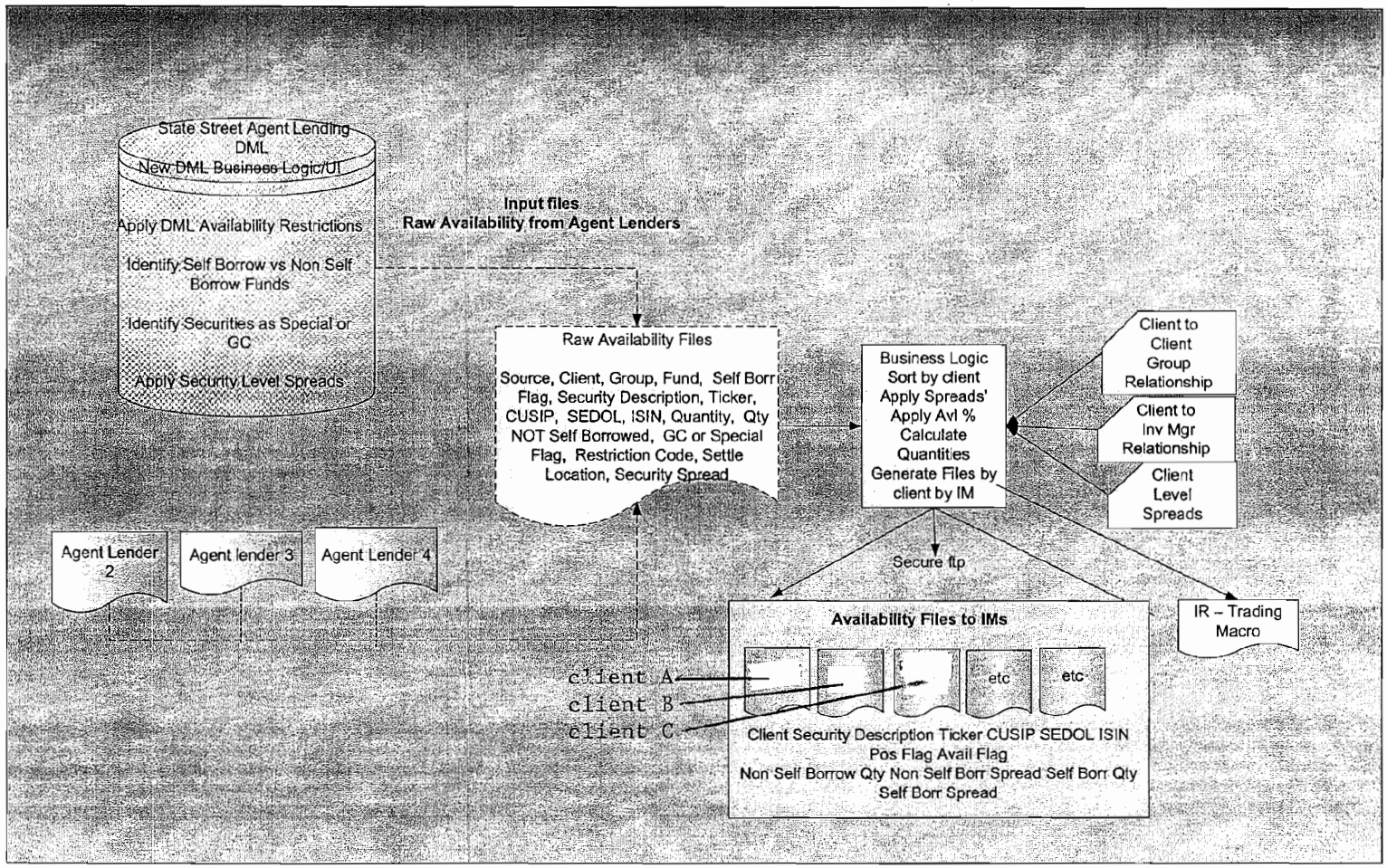


Fig.16

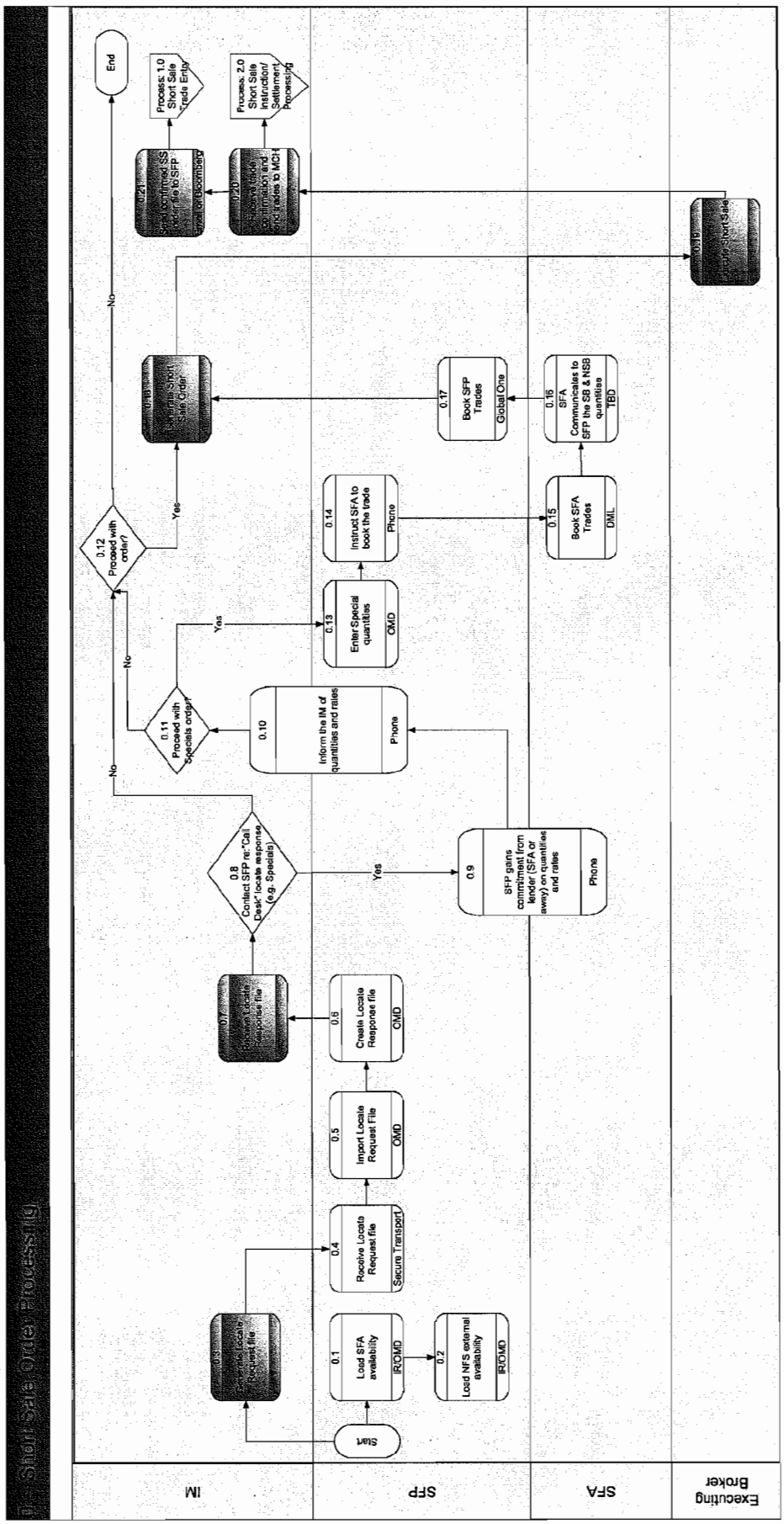
1 - Short Sale Order Processing
IM
SFP
SFA
Executing Broker
Start
0.1 Load SFA availability IR/OMD
0.2 Load NFS external availability IR/OMD
0.3 Generate locate request file
0.4 Receive Locate Request file Secure Transport
0.5 Import Locate Request File OMD
0.6 Create Locate Response file OMD
0.7 Process locate response file
0.8 Collect SFP re:"Call Desk" locate response (e.g. Specials)
0.9 SFP gains commitment from lender (SFA or away) on quantities and rates Phone
0.10 Inform the IM of quantities and rates Phone
0.11 Proceed with Specials order?
0.12 Proceed with order?
0.13 Enter Special quantities OMD
0.14 Instruct SFA to book the trade Phone
0.15 Book SFA Trades DML
0.16 SFA Communicates to SFP the SB & NSB quantities TBD
0.17 Book SFP Trades Global One
0.18 Generate Short Sale Order
0.19 Locate short sale
0.20 Receive trade confirmation and end trades to MCH
0.21 Send confirmed SS order file to SFP Post On Backmbers
Process: 1.0 Short Sale Trade Entry
Process: 2.0 Short Sale Instruction/ Settlement Processing
End
Yes
No
Yes
No
No

Fig.17

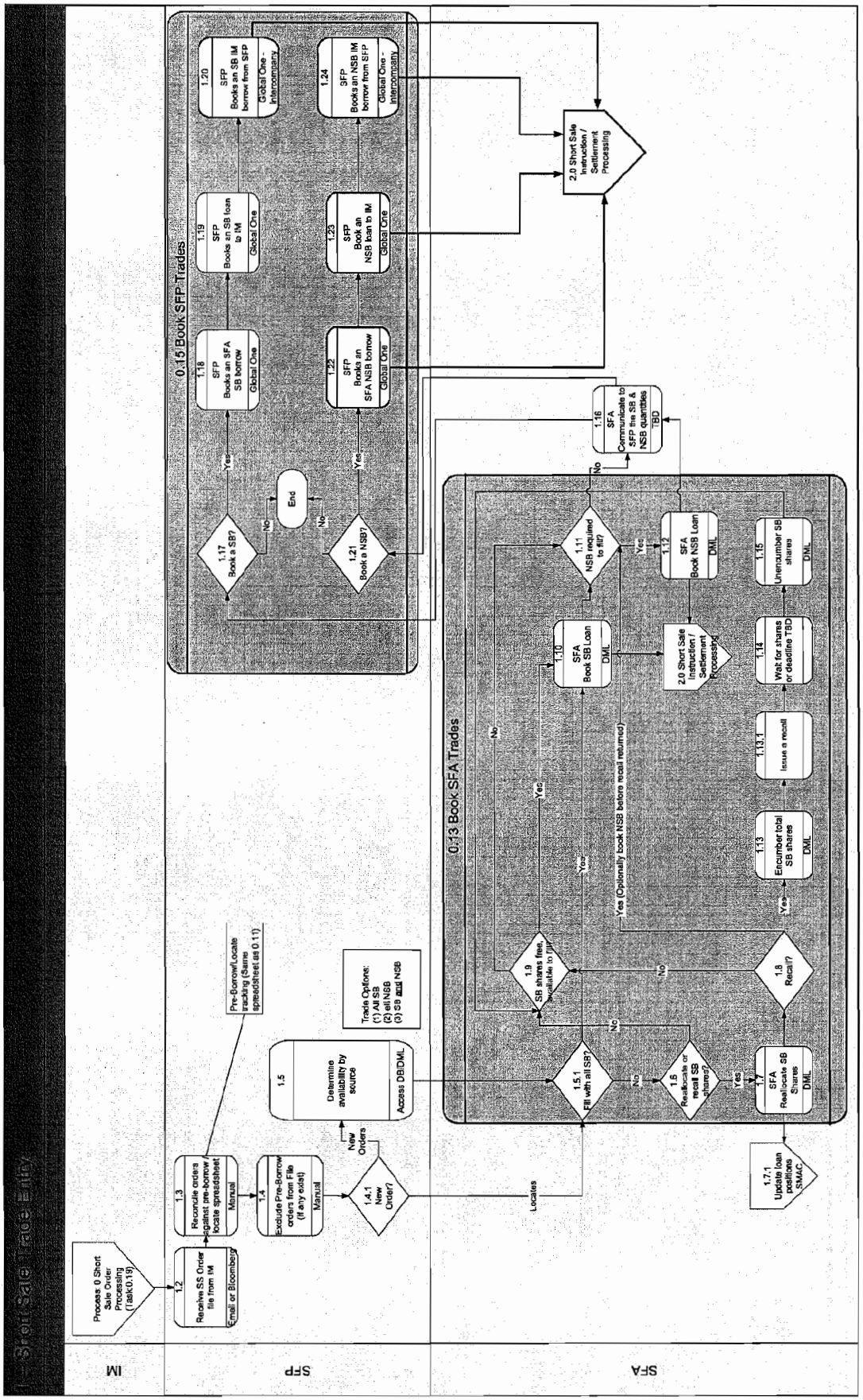
Short Sale Trade Entity
IM
SFP
SFA
Process 0 Short Sale Order Processing (Task:0.1)
1.2 Receive SS Order file from IM
Email or Bloomberg
1.3 Reconcile orders against pre-borrow / locate spreadsheet
Manual
Pre-Borrow/Locate tracking (Same spreadsheet as 0.11)
1.4 Exclude Pre-Borrow orders from File (if any exist)
Manual
1.4.1 New Order?
New Orders
1.5 Determine availability by source
Access DB/DML
Trade Options: (1) All SB (2) all NSB (3) SB and NSB
Locates
0.15 Book SFP Trades
1.17 Book a SB?
Yes
No
1.18 SFP Books an SFA SB borrow
Global One
1.19 SFP Books an SB loan to IM
Global One
1.20 SFP Books an SB IM borrow from SFP
Global One - Intercompany
End
1.21 Book a NSB?
Yes
No
1.22 SFP Books an SFA NSB borrow
Global One
1.23 SFP Book an NSB loan to IM
Global One
1.24 SFP Books an NSB IM borrow from SFP
Global One - Intercompany
2.0 Short Sale Instruction / Settlement Processing
0.13 Book SFA Trades
1.5.1 Fill with all SB?
No
Yes
1.6 Reallocate or recall SB shares?
Yes
No
1.7 SFA Reallocate SB Shares
DML
1.7.1 Update loan positions SMAC
1.8 Recall?
Yes
No
1.9 SB shares free, available to pledge?
Yes
No
1.10 SFA Book SB Loan
DML
1.11 NSB required to fill?
Yes
No
1.12 SFA Book NSB Loan
DML
1.13 Encumber total SB shares
DML
1.13.1 Issue a recall
1.14 Wait for shares or deadline TBD
1.15 Unencumber SB shares
DML
2.0 Short Sale Instruction / Settlement Processing
Yes (Optionally book NSB before recall returned)
1.16 SFA Communicate to SFP the SB & NSB quantities TBD

Fig.18

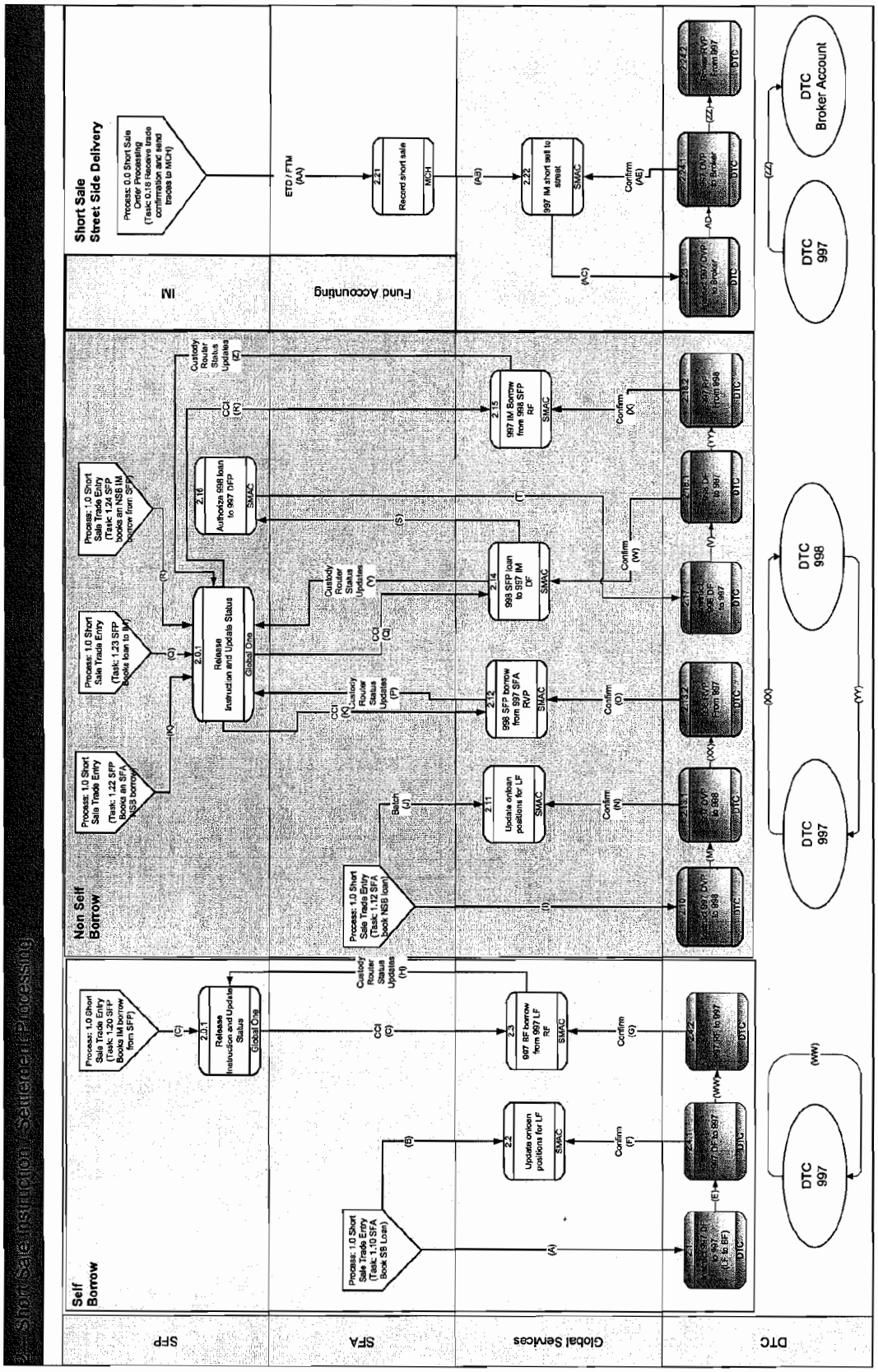
Short Sale Instruction - Settlement Processing
SFP
SFA
Global Services
DTC
Self Borrow
Non Self Borrow
IM
Fund Accounting
Short Sale Street Side Delivery
Process: 1.0 Short Sale Trade Entry (Task: 1.20 SFP Books IM borrow from SFP)
Process: 1.0 Short Sale Trade Entry (Task: 1.22 SFP Books an SFA, NSB borrow)
Process: 1.0 Short Sale Trade Entry (Task: 1.23 SFP books loan to IM)
Process: 1.0 Short Sale Trade Entry (Task: 1.24 SFP books an NSB IM borrow from SFP)
Process: 1.0 Short Sale Trade Entry (Task: 1.10 SFA Book SB Loan)
Process: 1.0 Short Sale Trade Entry (Task: 1.12 SFA book NSB loan)
Process: 0.0 Short Sale Order Processing (Task: 0.18 Receive trade confirmation and send trades to MCH)
2.0.1 Release Instruction and Update Status
Global One
2.1 Update onlcon positions for LF
2.2 Update onlcon positions for LF
2.3 997 RF borrow from 997 LF RF
2.4 998 SFP loan to SFP IM DF
2.12 998 SFP borrow from 997 SFA RVP
2.15 997 IM Borrow from 998 SFP RF
2.16 Authorize 998 loan to 997 RFP
2.21 Record short sale
2.22 997 IM short sell to street
ETD / FTM (AA)
Custody Router Status Updates (H)
Custody Router Status Updates (Y)
Custody Router Status Updates (F)
Custody Router Status Updates (Z)
Batch (J)
Confirm (N)
Confirm (O)
Confirm (W)
Confirm (X)
Confirm (F)
Confirm (Q)
Confirm (AE)
DTC 997
DTC 998
DTC Broker Account

Fig.19

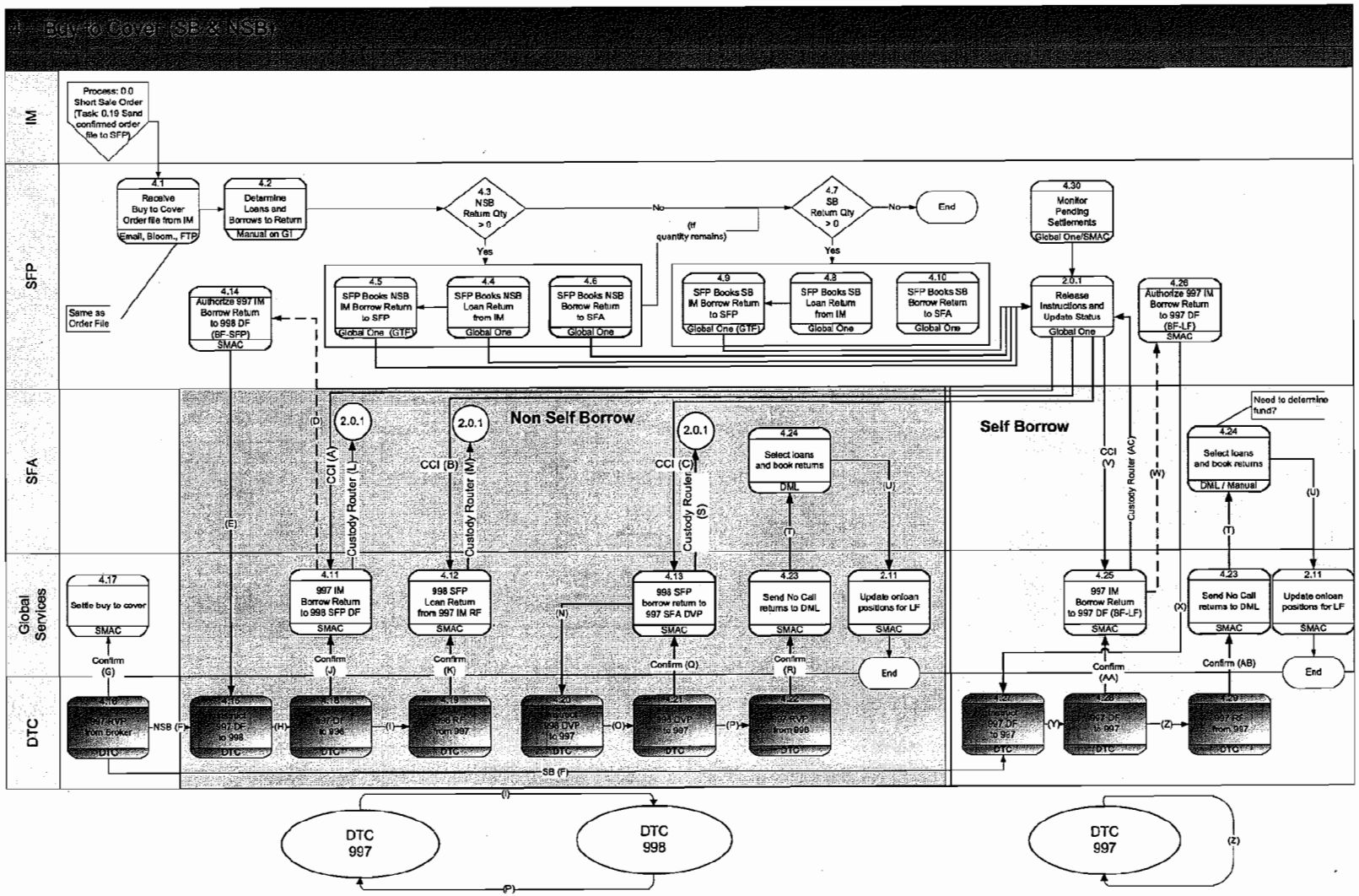
4 - Buy to Cover (SB & NSB)
IM
SFP
SFA
Global Services
DTC
Process: 0.0 Short Sale Order (Task: 0.19 Send confirmed order file to SFP)
4.1 Receive Buy to Cover Order file from IM
Email, Bloom., FTP
4.2 Determine Loans and Borrows to Return
Manual on GT
4.3 NSB Return Qty > 0
4.7 SB Return Qty > 0
No
Yes
(If quantity remains)
End
4.30 Monitor Pending Settlements
Global One/SMAC
Same as Order File
4.14 Authorize 997 IM Borrow Return to 998 DF (BF-SFP)
SMAC
4.5 SFP Books NSB IM Borrow Return to SFP
Global One (GTF)
4.4 SFP Books NSB Loan Return from IM
Global One
4.6 SFP Books NSB Borrow Return to SFA
Global One
4.9 SFP Books SB IM Borrow Return to SFP
Global One (GTF)
4.8 SFP Books SB Loan Return from IM
Global One
4.10 SFP Books SB Borrow Return to SFA
Global One
2.0.1 Release Instructions and Update Status
Global One
4.26 Authorize 997 IM Borrow Return to 997 DF (BF-LF)
SMAC
Non Self Borrow
Self Borrow
2.0.1
CCI (A)
CCI (B)
CCI (C)
Custody Router (L)
Custody Router (M)
Custody Router (S)
Custody Router (AC)
CCI (V)
(D)
(E)
(T)
(U)
(W)
(X)
(N)
4.24 Select loans and book returns
DML
Need to determine fund?
4.24 Select loans and book returns
DML / Manual
4.17 Settle buy to cover
SMAC
4.11 997 IM Borrow Return to 998 SFP DF
SMAC
4.12 998 SFP Loan Return from 997 IM RF
SMAC
4.13 998 SFP borrow return to 997 SFA DVP
SMAC
4.23 Send No Call returns to DML
SMAC
2.11 Update onloan positions for LF
SMAC
4.25 997 IM Borrow Return to 997 DF (BF-LF)
SMAC
4.23 Send No Call returns to DML
SMAC
2.11 Update onloan positions for LF
SMAC
Confirm (G)
Confirm (J)
Confirm (K)
Confirm (Q)
Confirm (R)
Confirm (AA)
Confirm (AB)
End
4.16 997 RVP from Broker
DTC
NSB (F)
4.15 Instruct 997 DF to 998
DTC
(H)
4.18 997 DF to 998
DTC
(I)
4.19 998 RF from 997
DTC
4.20 Instruct 998 DVP to 997
DTC
(O)
4.21 998 DVP to 997
DTC
(P)
4.22 997 RVP from 998
DTC
4.27 Instruct 997 DF to 997
DTC
(Y)
4.28 997 DF to 997
DTC
(Z)
4.29 997 RF from 997
DTC
SB (F)
DTC 997
DTC 998
DTC 997

Fig.20

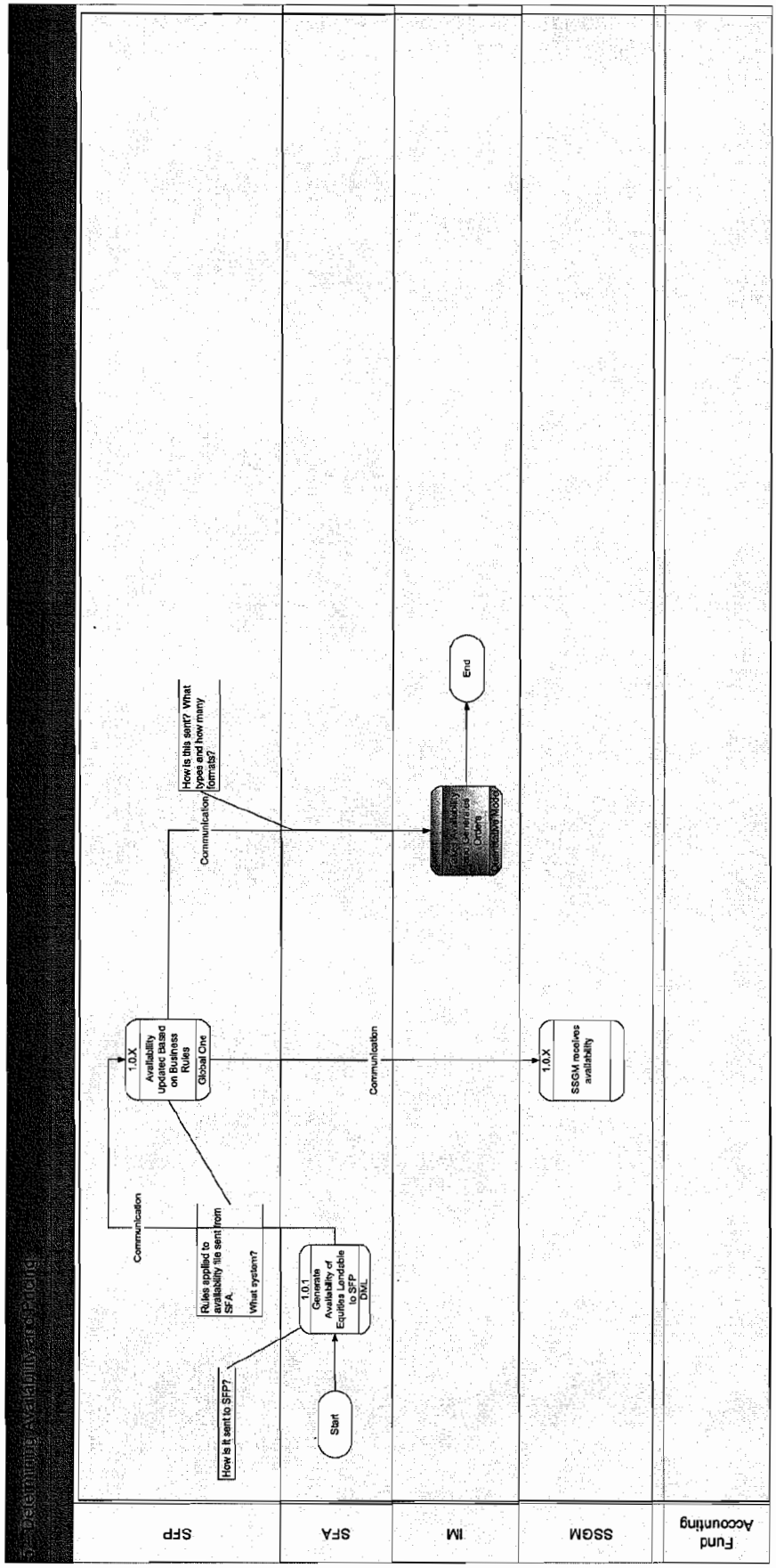
5 - Determine Availability and Pricing
SFP
SFA
IM
SSGM
Fund Accounting
1.0.X
Availability Updated based on Business Rules
Global Cne
Communication
How is this sent? What types and how many formats?
Communication
Rules applied to availability file sent from SFA
What system?
How is it sent to SFP?
1.0.1
Generate Availability of Equities Landable to SFP DML
Start
Communication
1.0.X
SSGM receives availability
End

Fig.21

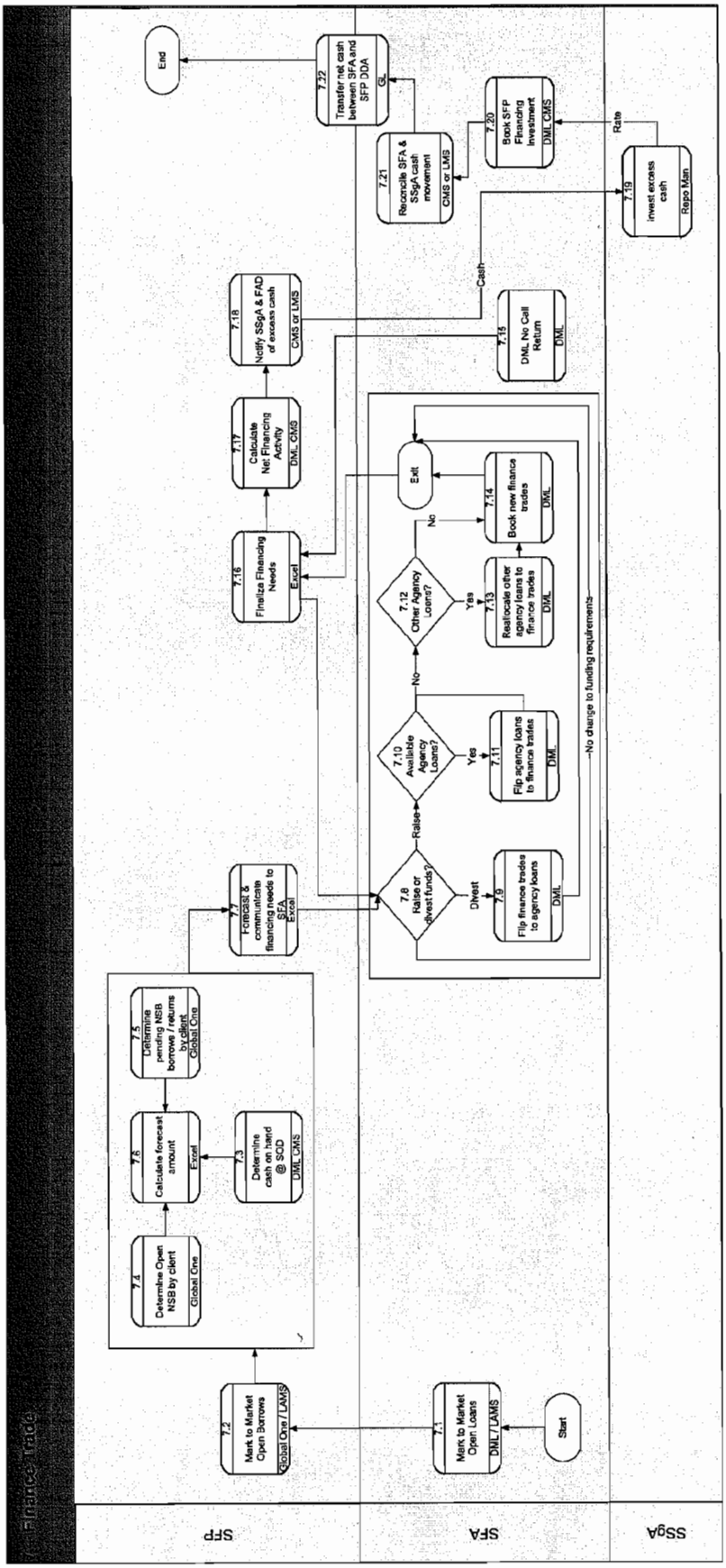
Finance Trade
SFP
SFA
SSgA
Start
7.1 Mark to Market Open Loans DML / LAMS
7.2 Mark to Market Open Borrows Global One / LAMS
7.3 Determine cash on hand @ SOD DML CMS
7.4 Determine Open NSB by client Global One
7.5 Determine pending NSB borrows / returns by client Global One
7.6 Calculate forecast amount Excel
7.7 Forecast & communicate financing needs to SFA Excel
7.8 Raise or Divest funds?
Raise
Divest
7.9 Flip finance trades to agency loans DML
7.10 Available Agency Loans?
Yes
7.11 Flip agency loans to finance trades DML
No
7.12 Other Agency Loans?
Yes
7.13 Reallocate other agency loans to finance trades DML
No
7.14 Book new finance trades DML
Exit
No change to funding requirements
7.15 DML No Call Return DML
7.16 Finalize Financing Needs Excel
7.17 Calculate Net Financing Activity DML CMS
7.18 Notify SSgA & FAD of excess cash CMS or LMS
Cash
7.19 Invest excess cash Repo Mkt
Rate
7.20 Book SFP Financing Investment DML CMS
7.21 Reconcile SFA & SSgA cash movement CMS or LMS
7.22 Transfer net cash between SFA and SFP DDA GL
End

Fig.22

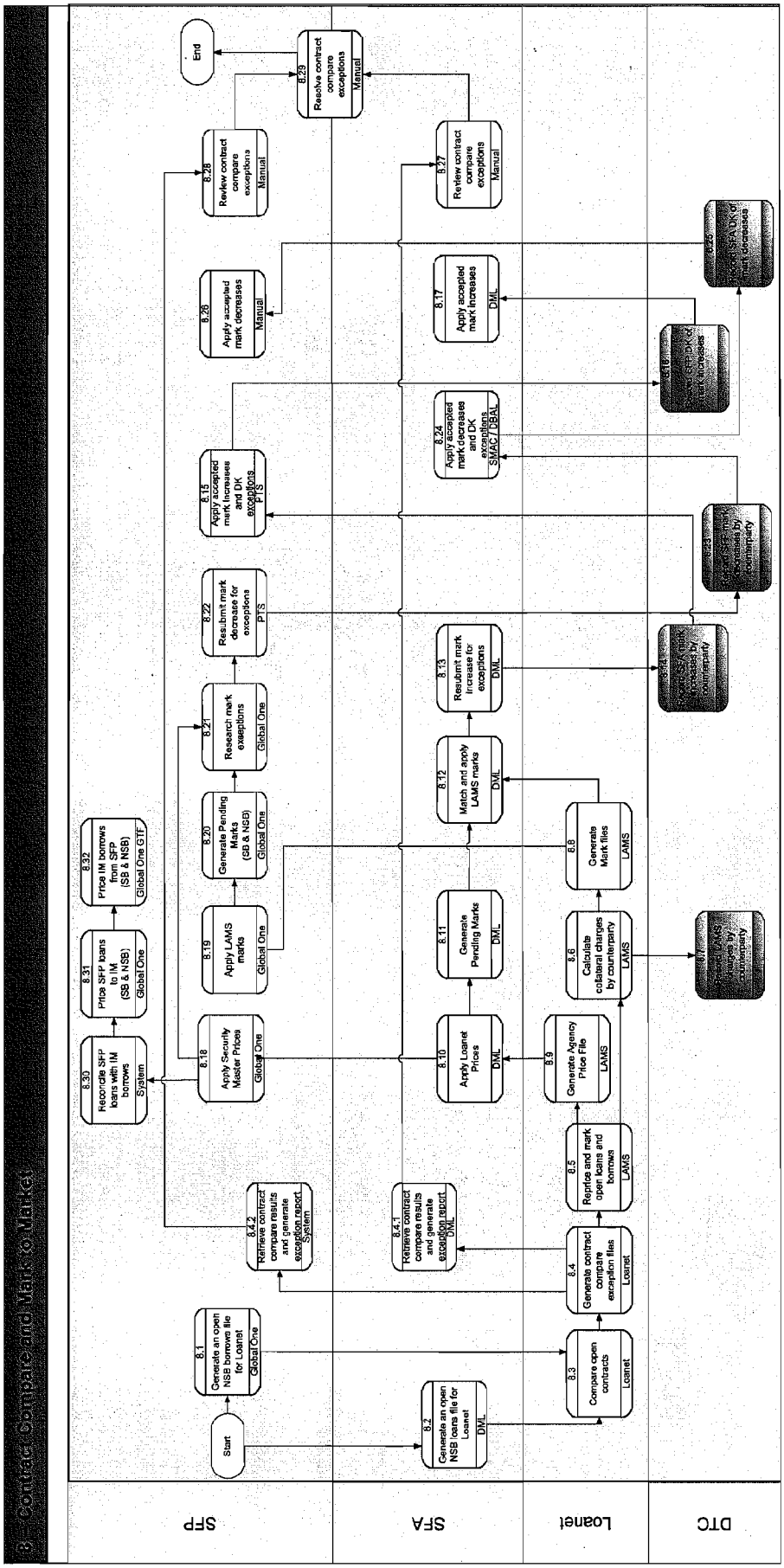
3 Contracts Compare and Mark to Market
SFP
SFA
Loanet
DTC
Start
End
8.1 Generate an open NSB borrows file for Loanet Global One
8.2 Generate an open NSB loans file for Loanet DML
8.3 Compare open contracts Loanet
8.4 Generate contract compare exception files Loanet
8.5 Reprice and mark open loans and borrows LAMS
8.6 Calculate collateral charges by counterparty LAMS
8.7 Post LAMS charges by counterparty
8.8 Generate Mark files LAMS
8.9 Generate Agency Price File LAMS
8.10 Apply Loanet Prices DML
8.11 Generate Pending Marks DML
8.12 Match and apply LAMS marks DML
8.13 Resubmit mark increase for exceptions DML
8.14 Post LAMS mark increases by counterparty
8.15 Apply accepted mark increases and DK exceptions PTS
8.16 Post SFA/DK of mark increases
8.17 Apply accepted mark increases DML
8.18 Apply Security Master Prices Global One
8.19 Apply LAMS marks Global One
8.20 Generate Pending Marks (SB & NSB) Global One
8.21 Research mark exceptions Global One
8.22 Resubmit mark decrease for exceptions PTS
8.23 Post SFA/DK of mark decreases by counterparty
8.24 Apply accepted mark increases and DK exceptions SMAC / DBAL
8.25 Post SFA/DK of mark decreases
8.26 Apply accepted mark decreases Manual
8.27 Review contract compare exceptions Manual
8.28 Review contract compare exceptions Manual
8.29 Resolve contract compare exceptions Manual
8.30 Reconcile SFP loans with IM borrows System
8.31 Price SFP loans to IM (SB & NSB) Global One
8.32 Price IM borrows from SFP (SB & NSB) Global One GTF
8.4.1 Retrieve contract compare results and generate exception report DML
8.4.2 Retrieve contract compare results and generate exception report System

Fig.23

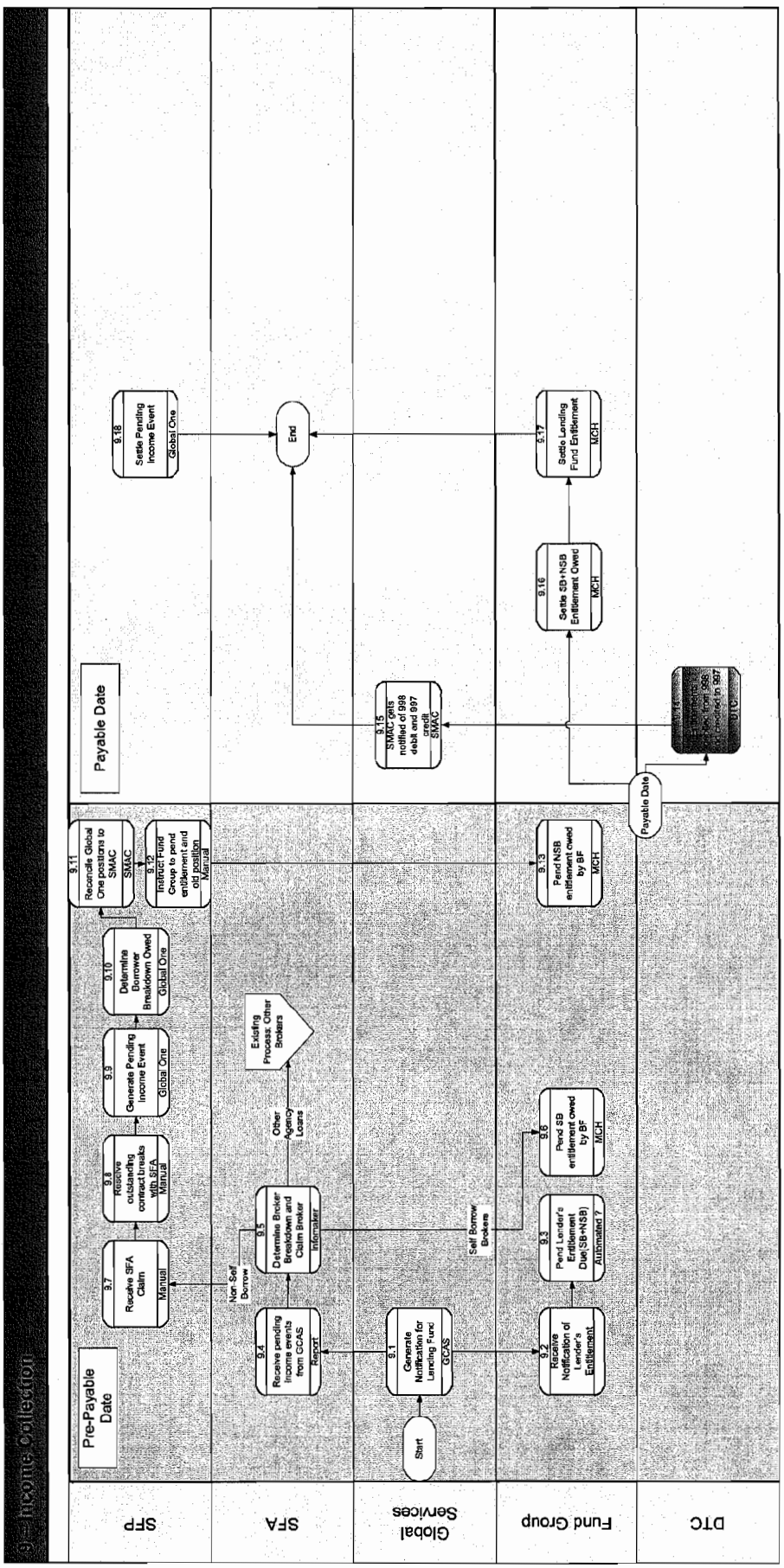
Income Collection
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable Date
Payable Date
Start
9.1 Generate Notification for Lancing Fund GCAS
9.2 Receive Notification of Lender's Entitlement
9.3 Pend Lender's Entitlement Due(SB+NSB) Automated ?
9.4 Receive pending income events from GCAS Report
9.5 Determine Broker Breakdown and Claim Broker Informaker
9.6 Pend SB entitlement owed by BF MCH
9.7 Receive SFA Claim Manual
9.8 Resolve outstanding contract breaks with SFA Manual
9.9 Generate Pending Income Event Global One
9.10 Determine Borrower Breakdown Owed Global One
9.11 Reconcile Global One positions to SMAC SMAC
9.12 Instruct Fund Group to pend entitlement and collateral Manual
9.13 Pend NSB entitlement owed by BF MCH
9.15 SMMC gets notified of 998 debit and 997 credit SMAC
9.16 Settle SB+NSB Entitlement Owed MCH
9.17 Settle Lending Fund Entitlement MCH
9.18 Settle Pending Income Event Global One
End
Payable Date
Non-Self Borrow
Self Borrow Brokers
Other Agency Loans
Existing Process: Other Brokers

Fig.24

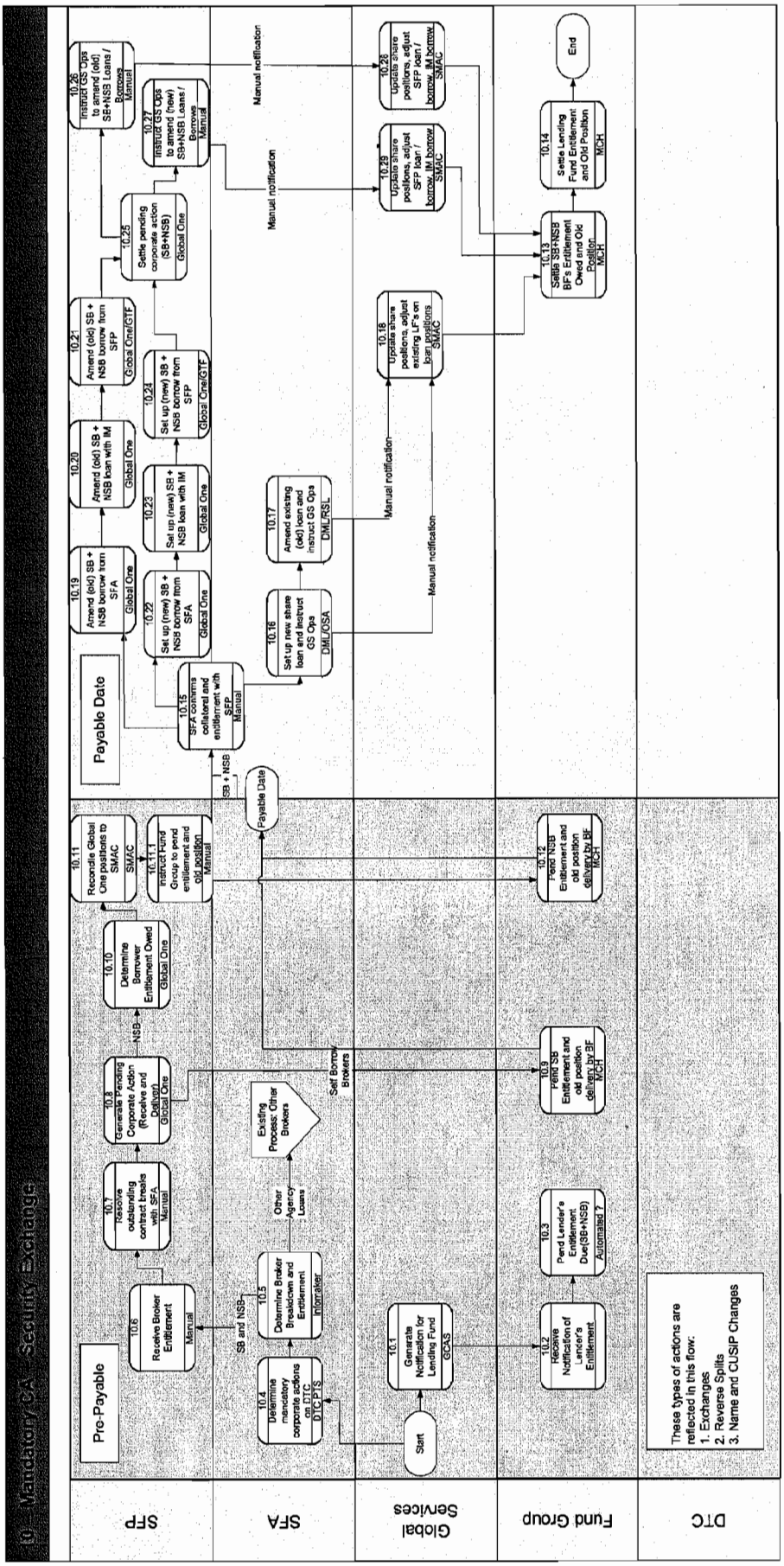
10 - Mandatory CA - Security Exchange
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
Start
10.1 Generate Notification for Lending Fund GCAS
10.2 Receive Notification of Lender's Entitlement
10.3 Pend Lender's Entitlement Due(SB+NSB) Automated ?
10.4 Determine mandatory corporate actions on DTC DTCPTS
10.5 Determine Broker Breakdown and Entitlement Inforraker
10.6 Receive Broker Entitlement Manual
10.7 Resolve outstanding contract breaks with SFA Manual
10.8 Generate Pending Corporate Action (Receive and Deliver) Global One
10.9 Pend SB Entitlement and old position delivery by BF MCH
10.10 Determine Borrower Entitlement Owed Global One
10.11 Recondile Global One positions to SMAC
10.11.1 Instruct Fund Group to pend entitlement and old position Manual
10.12 Pend NSB Entitlement and old position delivery by BF MCH
10.13 Settle SB+NSB BF's Entitlement Owed and Old Position MCH
10.14 Settle Lending Fund Entitlement and Old Position MCH
End
10.15 SFA confirms collateral and entitlement with SFP Manual
10.16 Set up new share loan and instruct GS Ops DML/OSA
10.17 Amend existing (old) loan and instruct GS Ops DML/RSL
10.18 Update share positions, adjust existing LF's on loan positions SMAC
10.19 Amend (old) SB + NSB borrow from SFA Global One
10.20 Amend (old) SB + NSB loan with IM Global One
10.21 Amend (old) SB + NSB borrow from SFP Global One/GTF
10.22 Set up (new) SB + NSB borrow from SFA Global One
10.23 Set up (new) SB + NSB loan with IM Global One
10.24 Set up (new) SB + NSB borrow from SFP Global One/GTF
10.25 Settle pending corporate action (SB+NSB) Global One
10.26 Instruct GS Ops to amend (old) SB+NSB Loans / Borrows Manual
10.27 Instruct GS Ops to amend (new) SB+NSB Loans / Borrows Manual
10.28 Update share positions, adjust SFP loan / borrow_IM borrow SMAC
10.29 Update share positions, adjust SFP loan / borrow_IM borrow SMAC
Manual notification
Manual notification
Manual notification
Manual notification
SB and NSB
SB + NSB
NSB
Payable Date
Other Agency Loans
Existing Process: Other Brokers
Self Borrow Brokers
These types of actions are reflected in this flow:
1. Exchanges
2. Reverse Splits
3. Name and CUSIP Changes

Fig.25

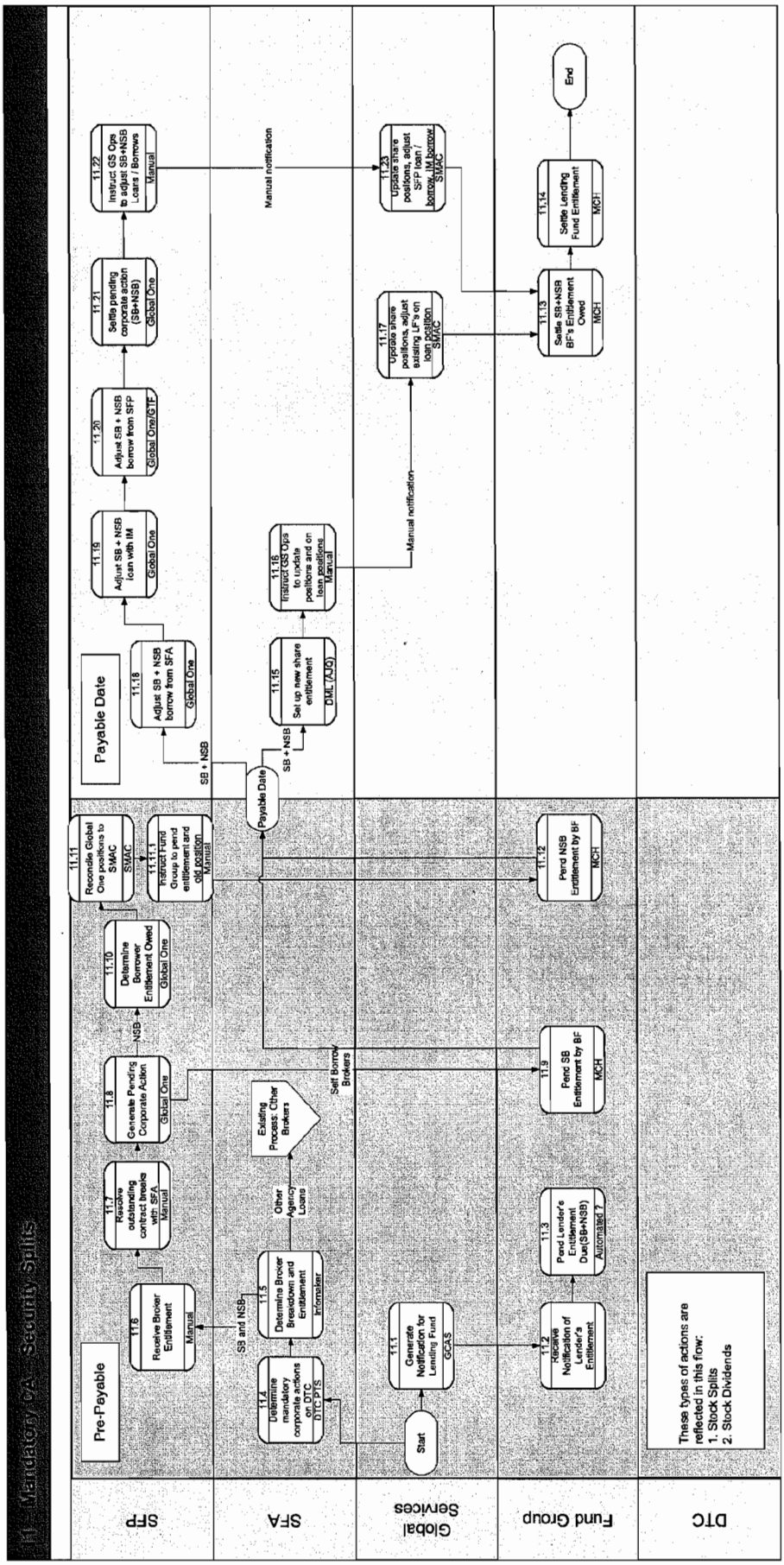
11 - Mandatory CA - Security Splits
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
Start
11.1 Generate Notification for Lending Fund GCAS
11.2 Receive Notification of Lender's Entitlement
11.3 Pend Lender's Entitlement Due(SB+NSB) Automated ?
11.4 Determine mandatory corporate actions on DTC DTC PTS
11.5 Determine Broker Breakdown and Entitlement Intomeiler
11.6 Receive Broker Entitlement Manual
11.7 Resolve outstanding contract breaks with SFA Manual
11.8 Generate Pending Corporate Action Global One
11.9 Pend SB Entitlement by BF MCH
11.10 Determine Borrower Entitlement Owed Global One
11.11 Reconcile Global One positions to SMAC SMAC
11.11.1 Instruct Fund Group to pend entitlement and old position Manual
11.12 Pend NSB Entitlement by BF MCH
11.13 Settle SB+NSB BF's Entitlement Owed MCH
11.14 Settle Lending Fund Entitlement MCH
11.15 Set up new share entitlement DML (AJG)
11.16 Instruct GS Ops to update positions and on loan positions Manual
11.17 Update share positions, adjust existing LF's on loan position SMAC
11.18 Adjust SB + NSB borrow from SFA Global One
11.19 Adjust SB + NSB loan with IM Global One
11.20 Adjust SB + NSB borrow from SFP Global One/GTF
11.21 Settle pending corporate action (SB+NSB) Global One
11.22 Instruct GS Ops to adjust SB+NSB Loans / Borrows Manual
11.23 Update share positions, adjust SFP loan / borrow, IM borrow SMAC
End
Existing Process: Other Brokers
Other Agency Loans
Self Borrow Brokers
SB and NSB
SB + NSB
NSB
Manual notification
Manual notification
These types of actions are reflected in this flow:
1. Stock Splits
2. Stock Dividends

Fig.26

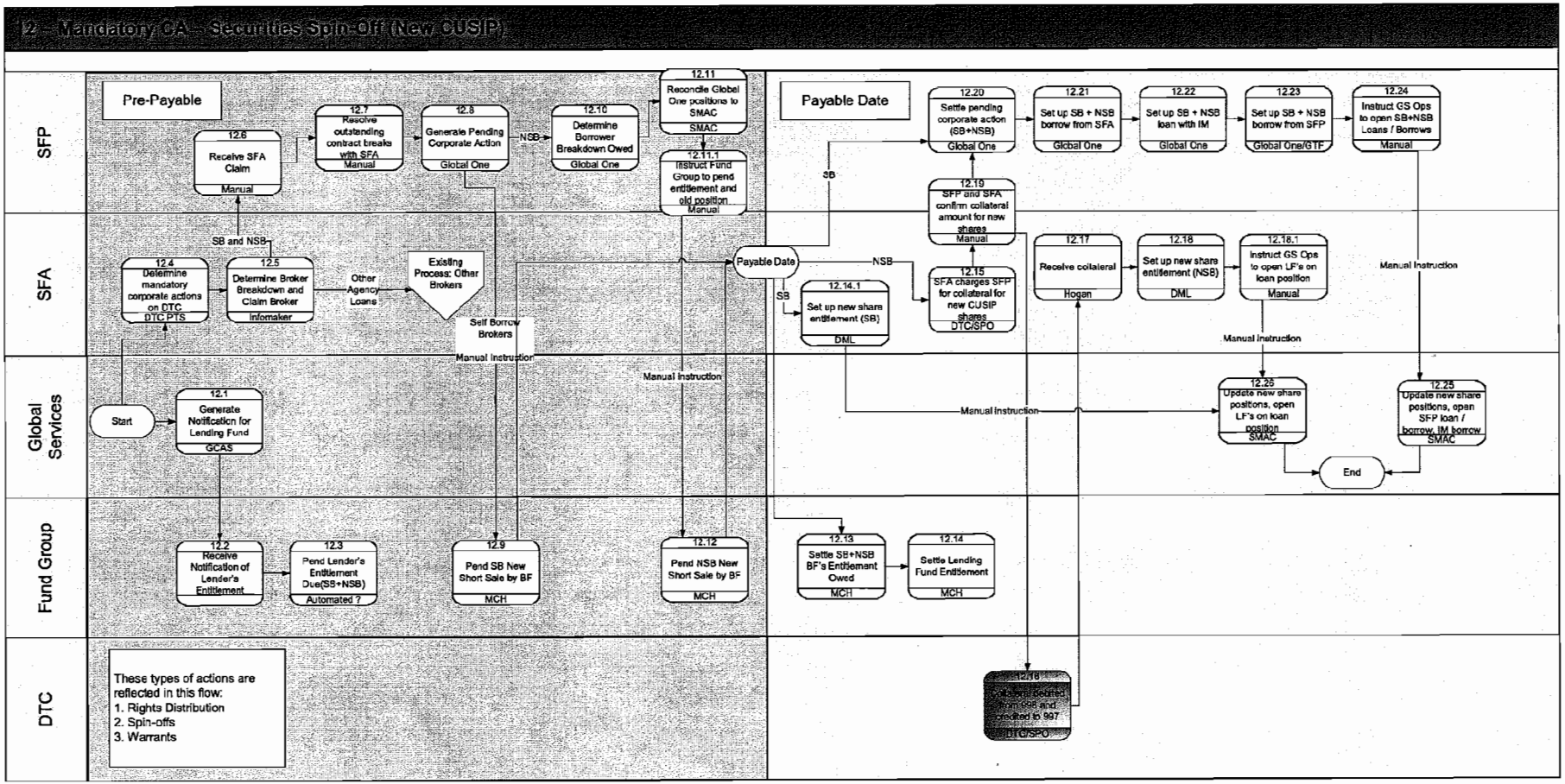
12 - Mandatory CA - Securities Spin-Off (New CUSIP)
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
12.6 Receive SFA Claim Manual
12.7 Resolve outstanding contract breaks with SFA Manual
12.8 Generate Pending Corporate Action Global One
NSB
12.10 Determine Borrower Breakdown Owed Global One
12.11 Reconcile Global One positions to SMAC SMAC
12.11.1 Instruct Fund Group to pend entitlement and old position Manual
SB and NSB
12.4 Determine mandatory corporate actions on DTC DTC PTS
12.5 Determine Broker Breakdown and Claim Broker Infomaker
Other Agency Loans
Existing Process: Other Brokers
Self Borrow Brokers
Manual Instruction
Start
12.1 Generate Notification for Lending Fund GCAS
12.2 Receive Notification of Lender's Entitlement
12.3 Pend Lender's Entitlement Due(SB+NSB) Automated ?
12.9 Pend SB New Short Sale by BF MCH
12.12 Pend NSB New Short Sale by BF MCH
These types of actions are reflected in this flow:
1. Rights Distribution
2. Spin-offs
3. Warrants
Payable Date
SB
NSB
12.14.1 Set up new share entitlement (SB) DML
12.20 Settle pending corporate action (SB+NSB) Global One
12.21 Set up SB + NSB borrow from SFA Global One
12.22 Set up SB + NSB loan with IM Global One
12.23 Set up SB + NSB borrow from SFP Global One/GTF
12.24 Instruct GS Ops to open SB+NSB Loans / Borrows Manual
12.19 SFP and SFA confirm collateral amount for new shares Manual
12.15 SFA charges SFP for collateral for new CUSIP shares DTC/SPO
12.17 Receive collateral Hogan
12.18 Set up new share entitlement (NSB) DML
12.18.1 Instruct GS Ops to open LF's on loan position Manual
Manual Instruction
12.26 Update new share positions, open LF's on loan position SMAC
12.25 Update new share positions, open SFP loan / borrow, IM borrow SMAC
End
12.13 Settle SB+NSB BF's Entitlement Owed MCH
12.14 Settle Lending Fund Entitlement MCH
12.16 Collateral debited from 998 and credited to 997 DTC/SPO

Fig.27

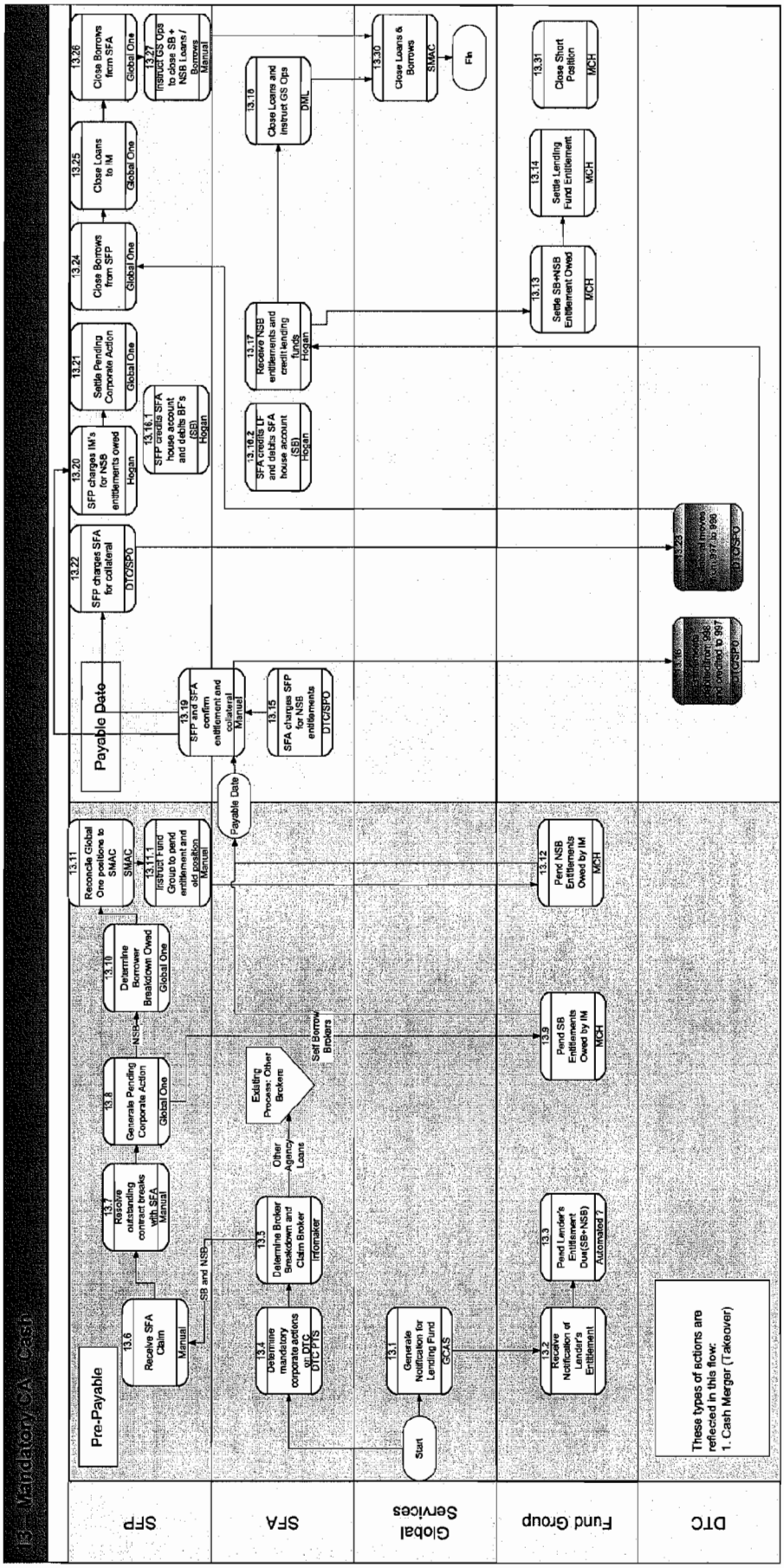
13 - Mandatory CA - Cash
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
Start
13.1 Generate Notification for Lending Fund GCAS
13.2 Receive Notification of Lender's Entitlement
13.3 Feed Lender's Entitlement Due(SB+NSB) Automated ?
13.4 Determine mandatory corporate actions DTC PTS
13.5 Determine Broker Breakdown and Claim Broker Infomaker
13.6 Receive SFA Claim Manual
13.7 Resolve outstanding contract breaks with SFA Manual
13.8 Generate Pending Corporate Action Global One
13.9 Feed SB Entitlements Owed by IM MCH
13.10 Determine Borrower Breakdown Owed Global One
13.11 Reconcile Global One positions to SMAC SMAC
13.11.1 Instruct Fund Group to pend entitlement and old position Manual
13.12 Pend NSB Entitlements Owed by IM MCH
13.13 Settle SB+NSB Entitlement Owed MCH
13.14 Settle Lending Fund Entitlement MCH
13.15 SFA charges SFP for NSB entitlements DTCSPO
13.16 Close Loans and Instruct GS Ops DML
13.16.1 SFP credits SFA house account and debits BF's (SB) Hogan
13.16.2 SFA credits LF and debits SFA house account (SB) Hogan
13.17 Receive NSB entitlements and credit lending funds Hogan
13.19 SFP and SFA confirm entitlement and collateral Manual
13.20 SFP charges IM's for NSB entitlements owed Hogan
13.21 Settle Pending Corporate Action Global One
13.22 SFP charges SFA for collateral DTCSPO
13.23 Collateral moves from 997 to 996 DTCSPO
13.24 Close Borrows from SFP Global One
13.25 Close Loans to IM Global One
13.26 Close Borrows from SFA Global One
13.27 Instruct GS Ops to close SB + NSB Loans / Borrows Manual
13.30 Close Loans & Borrows SMAC
13.31 Close Short Position MCH
Fin
Existing Process: Other Brokers
Other Agency Loans
Self Borrow Brokers
SB and NSB
NSB
These types of actions are reflected in this flow:
1. Cash Merger (Takeover)

Fig.28

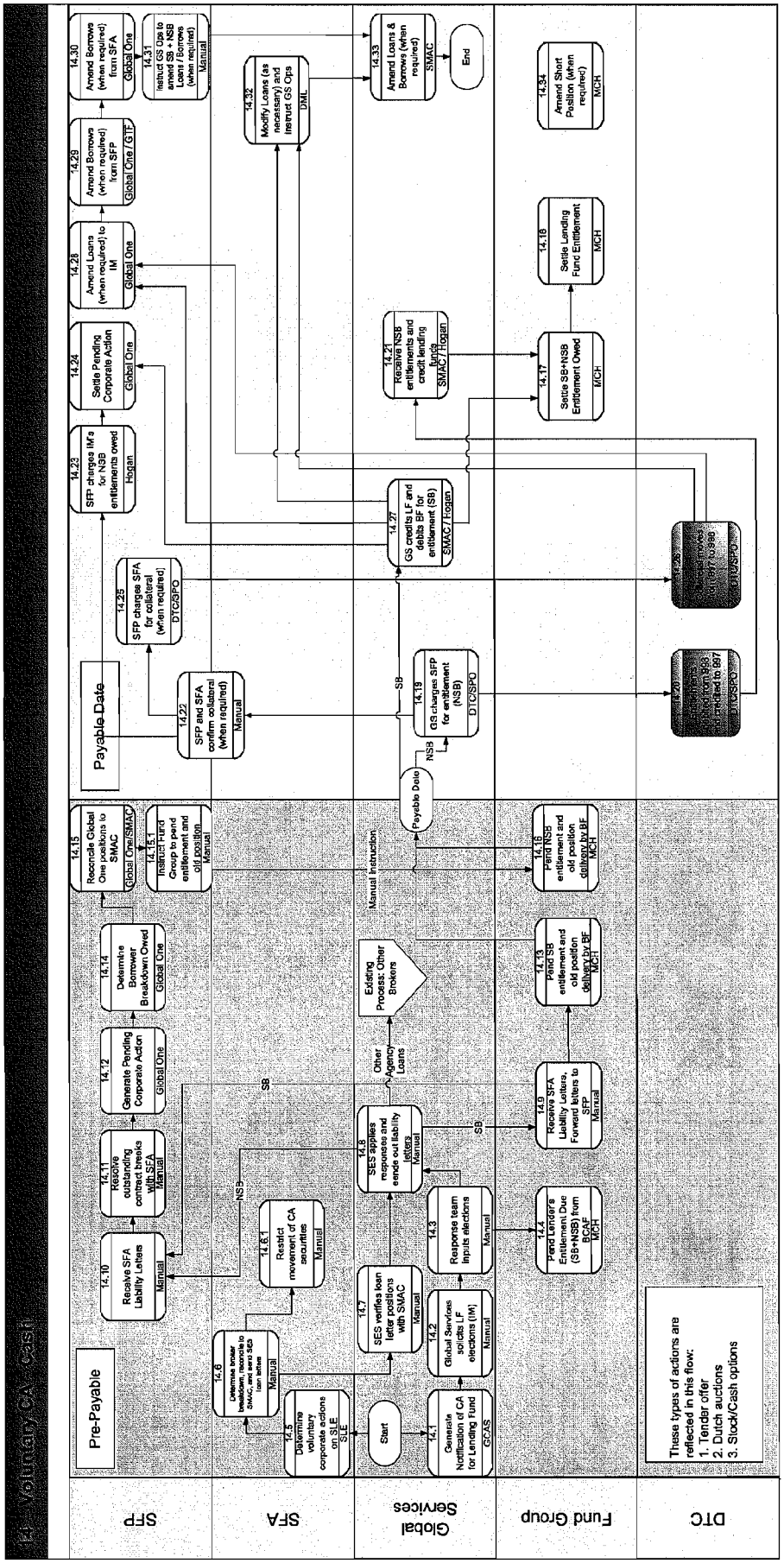
14 - Voluntary CA - Cash
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
Start
14.1 Generate Notification of CA for Lending Fund GCAS
14.2 Global Services solicits LF elections (IM) Manual
14.3 Response team inputs elections Manual
14.4 Fund Lender's Entitlement Due (SB+NSB) from BOAF MCH
14.5 Determine voluntary corporate actions on SLE SLE
14.6 Determine broker breakdown, reconcile to SMAC, and send SES loan letter Manual
14.7 SES verifies loan letter positions with SMAC Manual
14.8 SES applies responses and sends out liability letters Manual
14.8.1 Restrict movement of CA securities Manual
14.9 Receive SFA Liability Letters, Forward letters to SFP Manual
14.10 Receive SFA Liability Letters Manual
14.11 Resolve outstanding contract breaks with SFA MANUAL
14.12 Generate Pending Corporate Action Global One
14.13 Paid SB entitlement and old position delivery by BF MCH
14.14 Determine Borrower Breakdown Owed Global One
14.15 Reconcile Global One positions to SMAC Global One/SMAC
14.15.1 Instruct SFP and Group to post entitlement and old position Manual
14.16 Post SB entitlement and old position delivery by BF MCH
14.17 Settle SB+NSB Entitlement Owed MCH
14.18 Settle Lending Fund Entitlement MCH
14.19 GS charges SFP for entitlement (NSB) DTC/SPO
14.20 Instruct DTC to move collateral from SFP to SFA DTC/SPO
14.21 Receive NSB entitlements and credit lending funds SMAC / Hogan
14.22 SFP and SFA confirm collateral (when required) Manual
14.23 SFP charges IM's for NSB entitlements owed Hogan
14.24 Settle Pending Corporate Action Global One
14.25 SFP charges SFA for collateral (when required) DTC/SPO
14.26 Amend Loans (when required) to IM Global One
14.27 GS credits LF and debits BF for entitlement (SB) SMAC / Hogan
14.28 Amend Borrows (when required) from SFP Global One / GTF
14.29 Instruct DTC to move collateral from SFA to SFP DTC/SPO
14.30 Amend Borrows (when required) from SFA Global One
14.31 Instruct GS Ops to amend SB + NSB Loans / Borrows (when required) Manual
14.32 Modify Loans (as necessary) and instruct GS Ops DML
14.33 Amend Loans & Borrows (when required) SMAC
14.34 Amend Short Position (when required) MCH
End
Existing Process: Other Brokers
Other Agency Loans
Manual Instruction
SB
NSB
These types of actions are reflected in this flow:
1. Tender offer
2. Dutch auctions
3. Stock/Cash options

Fig.29

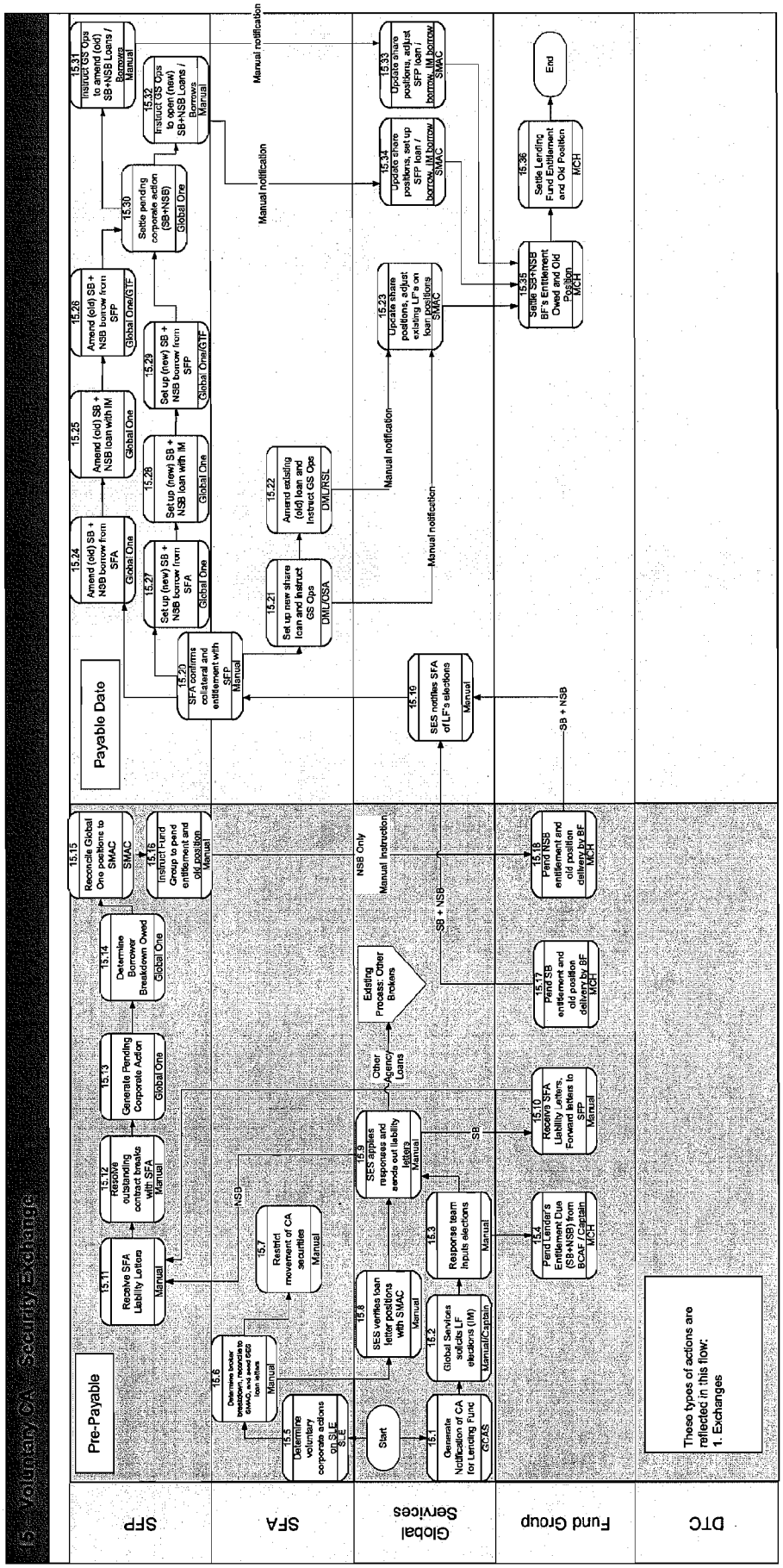
15 Voluntary CA - Security Exchange
SFP
SFA
Global Services
Fund Group
DTC
Pre-Payable
Payable Date
15.1 Generate Notification of CA for Lending Fund GCAS
15.2 Global Services solicits LF elections (IM) Manual/Captain
15.3 Determine voluntary corporate actions on SLE SLE
15.4 Penultimate 6 Entitlement Due (SB+NSB) from BCAF / Captain MCH
15.5 Start
15.6 Determine broker breakdown, reconcile to SMACC, and send SOD loan letter Manual
15.7 Restrict movement of CA securities Manual
15.8 SES verifies loan letter positions with SMAC Manual
15.9 SES applies responses and sends out liability letters Manual
15.10 Receive SFA Liability letters. Forward letters to SFP Manual
15.11 Receive SFA Liability Letters Manual
15.12 Resolve outstanding contract breaks with SFA Manual
15.13 Generate Pending Corporate Action Global One
15.14 Determine Borrower Breakdown Owed Global One
15.15 Reconcile Global One positions to SMAC SMAC
15.16 Instruct Fund Group to pend entitlement and old position Manual
15.17 Pend SB entitlement and old position delivery by BF MCH
15.18 Pend NSB entitlement and old position delivery by BF MCH
15.19 SES notifies SFA of LF's elections Manual
15.20 SFA confirms collateral and entitlement with SFP Manual
15.21 Set up new share loan and instruct GS Ops DML/GSA
15.22 Amend existing (old) loan and Instruct GS Ops DML/RSL
15.23 Update share positions, adjust existing LF's on loan positions SMAC
15.24 Amend (old) SB + NSB borrow from SFA Global One
15.25 Amend (old) SB + NSB loan with IM Global One
15.26 Amend (old) SB + NSB borrow from SFP Global One/GTF
15.27 Set up (new) SB + NSB borrow from SFA Global One
15.28 Set up (new) SB + NSB loan with IM Global One
15.29 Set up (new) SB + NSB borrow from SFP Global One/GTF
15.30 Settle pending corporate action (SB+NSB) Global One
15.31 Instruct GS Ops to amend (old) SB+NSB Loans / Borrows Manual
15.32 Instruct GS Ops to open (new) SB+NSB Loans / Borrows Manual
15.33 Update share positions, adjust SFP loan / borrow, IM borrow SMAC
15.34 Update share positions, set up SFP loan / borrow, IM borrow SMAC
15.35 Settle SB+NSB BF's Entitlement Owed and Old Position MCH
15.36 Settle Lending Fund Entitlement and Old Position MCH
End
NSB
SB
SB + NSB
NSB Only
Manual Instruction
Existing Process: Other Brokers
Other Agency Loans
Manual notification
These types of actions are reflected in this flow:
1. Exchanges

Fig.30