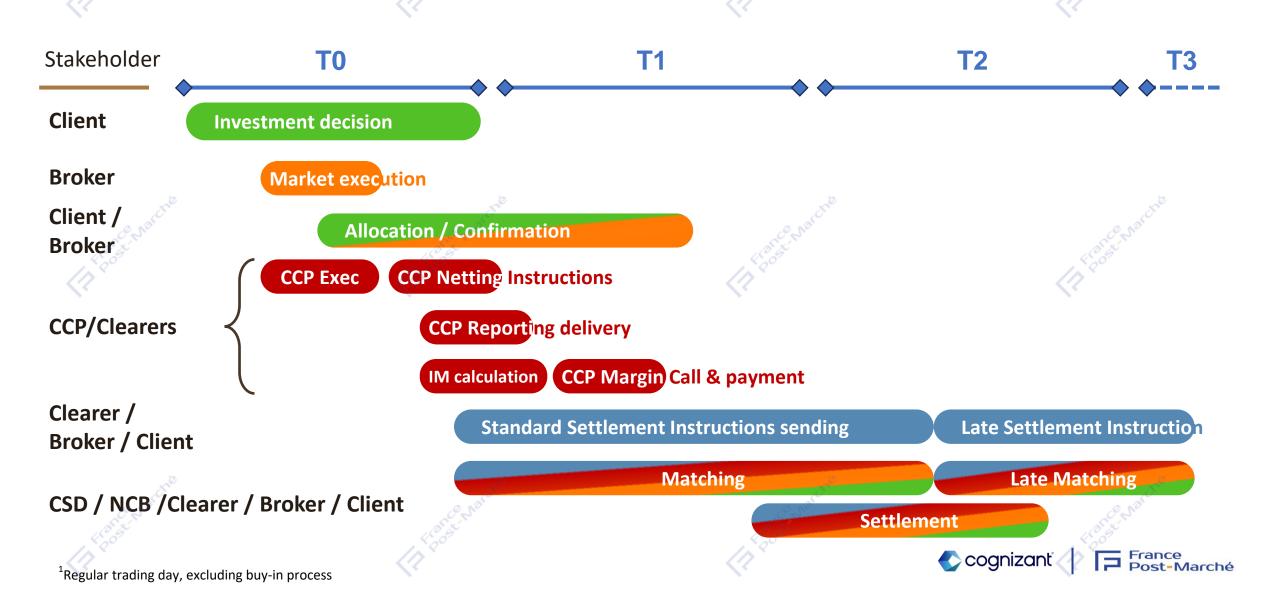




Daily routine¹ – Equity Market | Current process (T+2)

Settlement & delivery life cycle



Daily routine¹ – Equity Market | Current process (T+2)

Trade life cycle

Process	Description		
Investment decision	The Customer sends an order to his Broker		
Market execution	The Broker receives the order and sends it to the Trading Venue		
Allocation / Confirmation	After the order is executed by the Broker, the Client and the Broker exchange all required information to define the settlement delivery details		
CCP Exec	The CCP receives the Trading Venue execution, novates the trade, and sends a report to the Broker throughout the trading day.		
CCP Netting Instruction	After reconciling with the trading venue, the CCP determines the nets to be settled and sends Settlement instructions to Agents and CSD in accordance with its rules (PoA, etc.)		
CCP Reporting delivery	The CCP sends to the Clearers all of the end-of-day reports: Netting reports / Trade reports / Fail reports / Buy-in reports / Treasury reports, etc.		
CCP Margin Call & payment	The CCP calculates its exposure on all open positions at T0 and determines the required margin calls. The initial margin call is sent overnight and must be paid on T+1 morning (07:00 – 09:00).		
Standard Settlement Instructions transmission	All stakeholders send their Settlement instructions as soon as possible. The Client to the Global Custodian then the Global Custodian to Local Custodian. Idem from Broker to Local Custodian. The Local Custodian then sends it to the CSD. This communication is carried out in compliance with the necessary controls at each level, Option to send the instruction in Hold status, then Release. In the event of late transmission, this instruction will be considered "late" in the processes.		
Matching / Late Matching	The instructions of both parties must be transmitted throughout the custody chain and reach the CSD/T2S level for matching. This status is then retransmitted back to the chain of participants . To enable settlement on correct SD, matching must be completed before a deadline at the CSD/T2S level. If the instructions are not transmitted on time to CSD/T2S , settlement will take place for the following day, hence the concept of late matching.		
Settlement	If the instruction is released, settlement is performed for the intended Settlement day from ~08:00 pm SD-1 to 16:00 SD. Settlement is performed in full or partial quantity. Unsettled quantities are switched for settlement SD+1. Settlement statuses (full or partial) are sent back up the chain, from the CSD to the Local Custodian to the Global Custodian to the Broker to the Client.		
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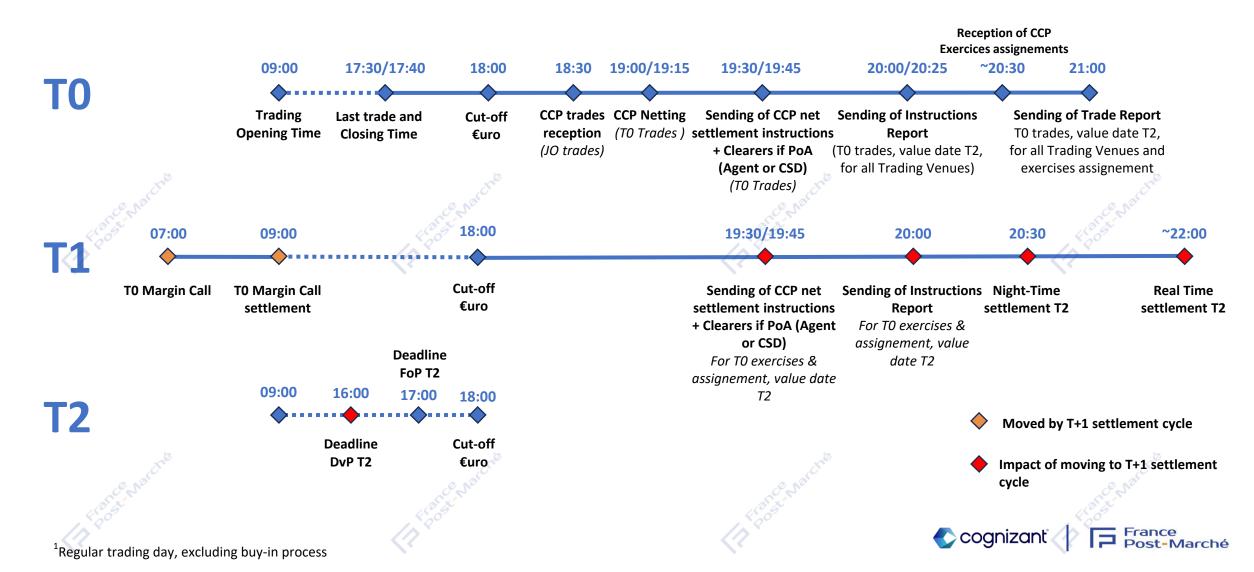


¹Regular trading day, excluding buy-in process



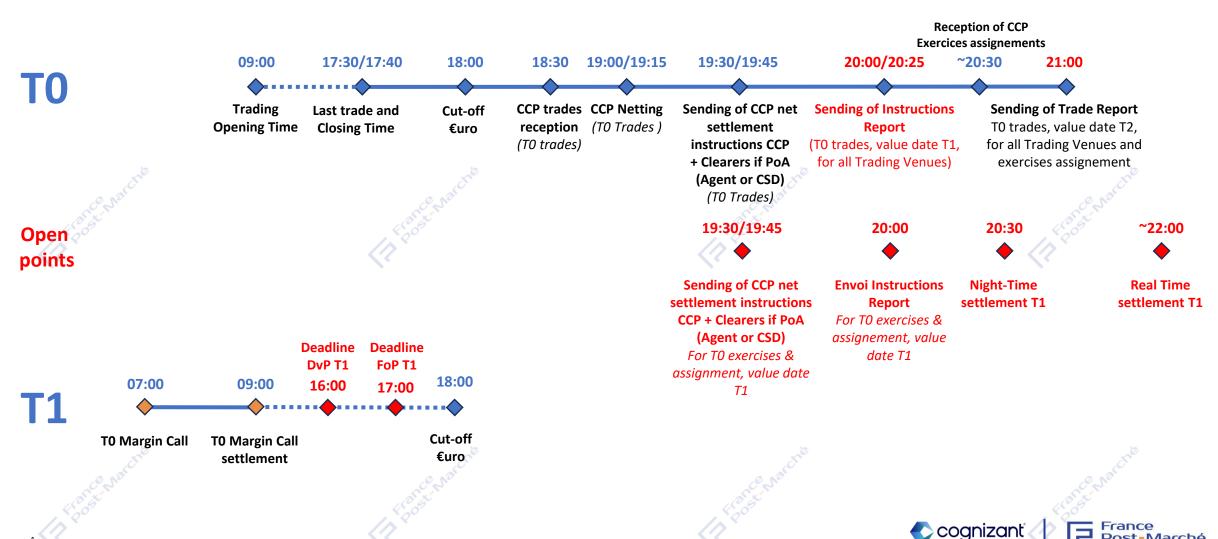
Daily routine¹— Equity market | Current process (T+2)

Intraday and Exec CCP transactions can be traded over the course of a single trading session Sending of settlement instructions can occur during the settlement & delivery lifecycle



Daily routine¹— Equity market | Impacts of T+1

Intraday and Exec CCP transactions can be traded over the course of a single trading session Sending of settlement instructions can occur during the settlement & delivery lifecycle

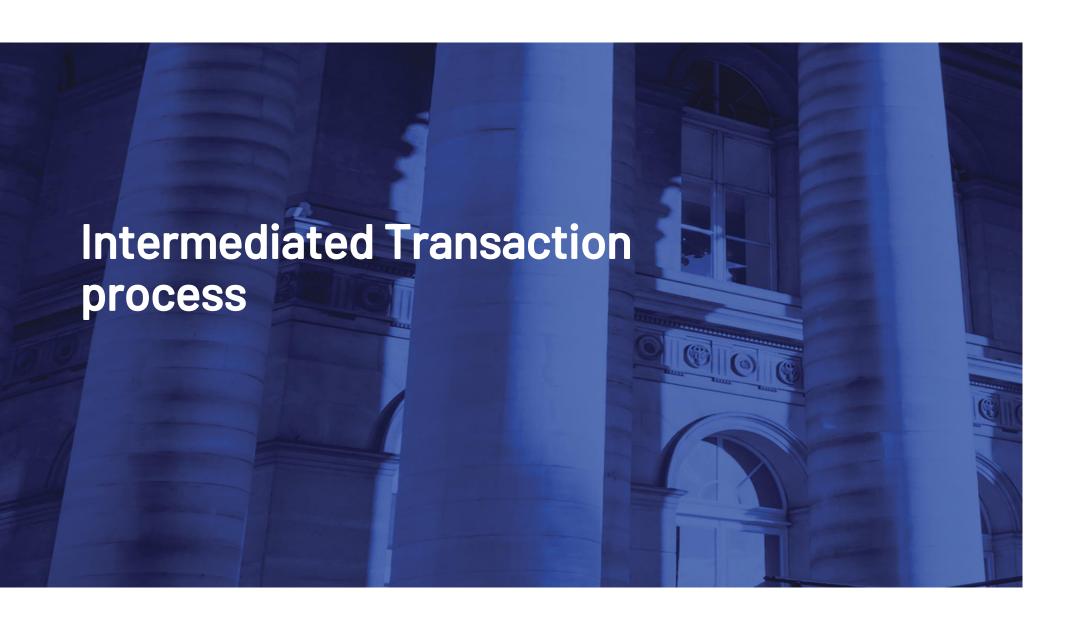


¹Regular trading day, excluding buy-in process

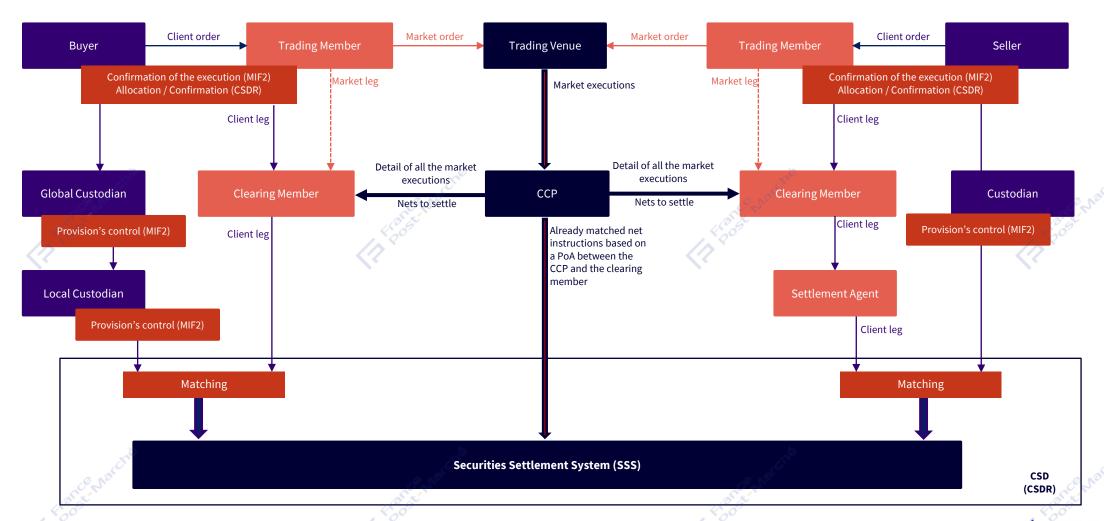
Potential pain points of a move to T+1

Subject	Topic	Rational
Margin Call	Calculation and Margin Call time frame	Margin calls are currently performed at 7am on the following day of the trade so that CCP are hedged until trades are settled. If transactions are settled overnight (before 7 am), margin call would be made on fully settled positions.
Cut Off Euro	Euro ECB cut-off time to be redefined	Margin calls would need to be performed on T0 evening, after ECB cut-off time, thus could not be settled exposing the CCP to a member defaulting.
Settlement Cycle T2S	T2S settlement night batch to be adjusted (number and timeline)	Current timeline of post trade processes conflicts with the start of night-time settlement process at 8.30pm.
Exercices & Assignements	Receiving schedules for exercises & assignments to be redefined	Current reception window for exercises & assignments would not fit in a T+1 settlement cycle.
che	at the second se	, dre





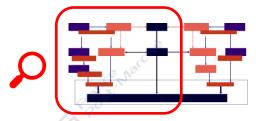
Equity Market | Intermediated transaction process

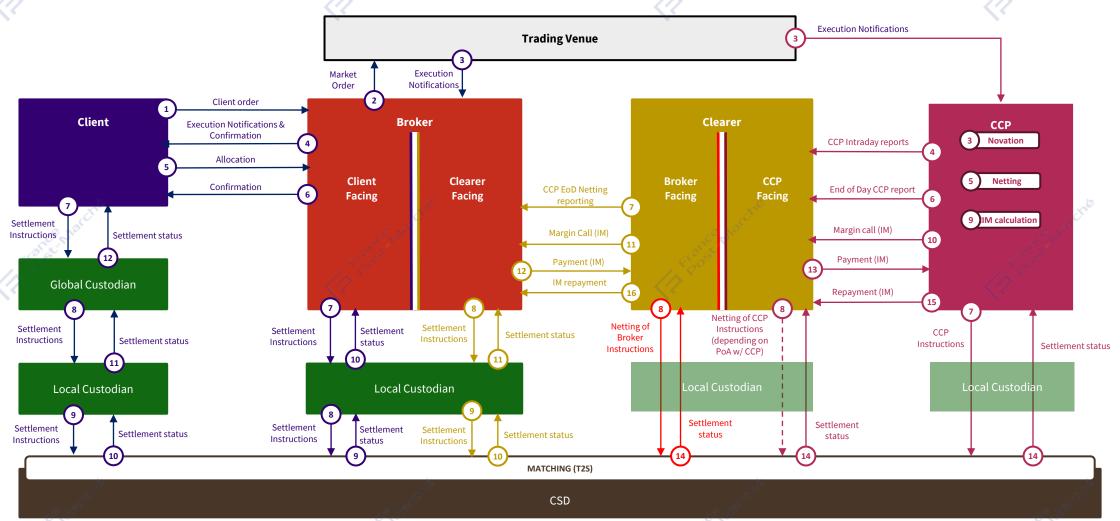






Equity Market | Transaction life cycle

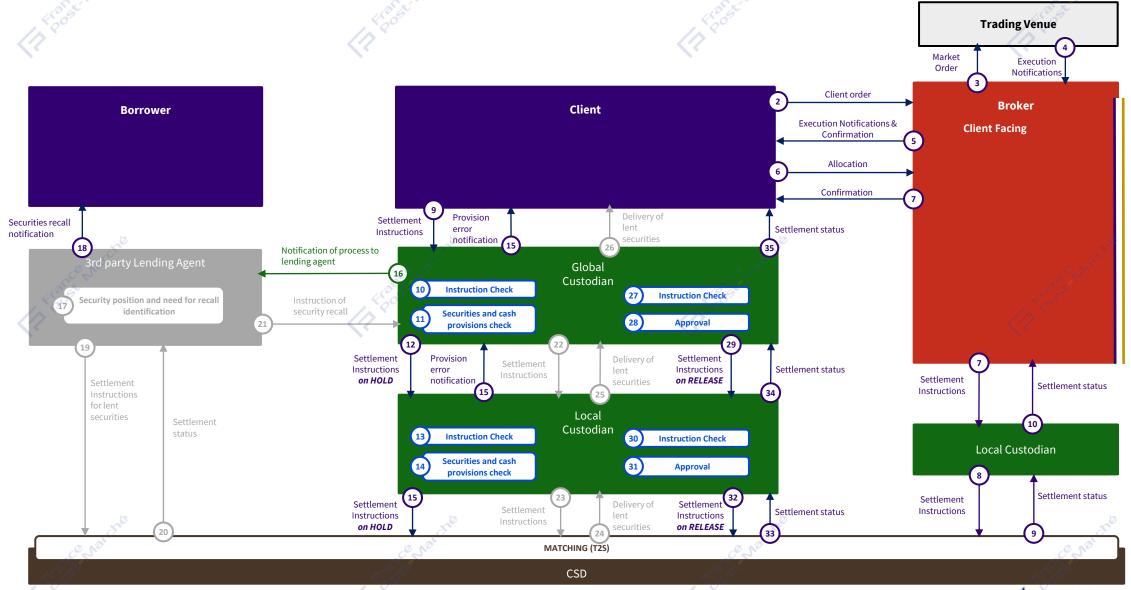








Equity Market | Case of lent out position





Main hypothesis of the charts

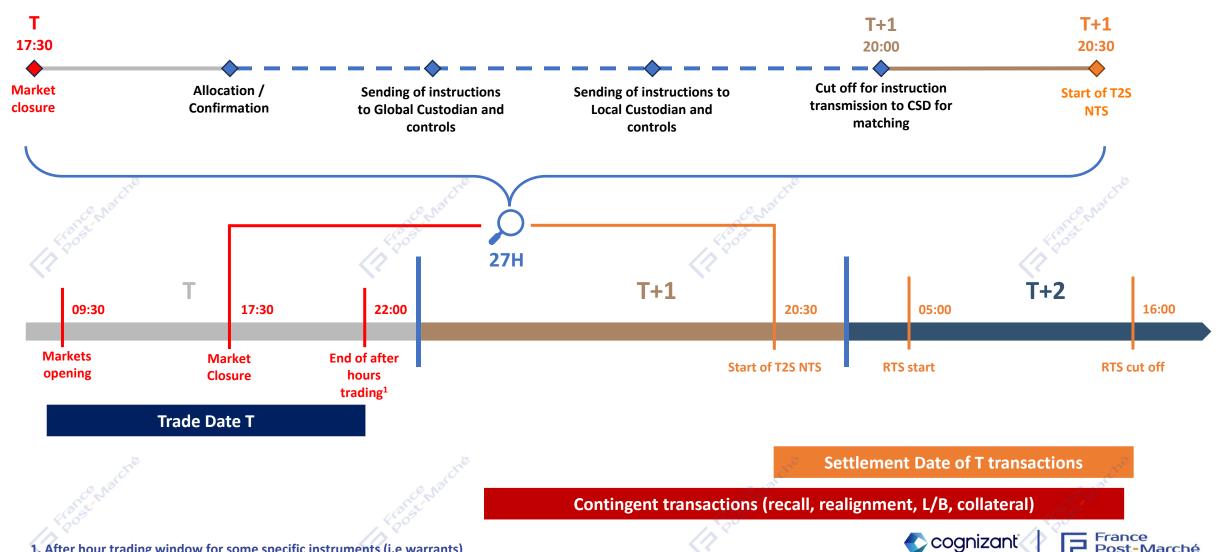
Below are stated the main hypothesis taken for representing equity transactions lifecycle in the slides above

Category	Process	Hypothesis	
Order	 Standard order to broker Can be Fix/Electronic or Voice 		
Broker execution on the market	Order is fulfilled with execution on X exchanges (MIFID/Best Execution), or via another broker, or via a Systematic Internaliser leading to clearing in one CCP or X CCP (possibility to use the Preferred CCP choice if possible)	Executions fulfilled in one CCP for Clearing	
Allocation/Confirmation	 The broker answers to its client, confirmation By order during the trading day Or by a Net Confirmation at the end of the day (average price): preferred choice for Institutional clients The client must give to the broker the allocation of the orders to its accounts/funds, the broker must send one confirmation by allocation. And The client must give to the broker the SSI of each allocation (data given at the opening of the account) 	Only 1 allocation answered on confirmation = 1 settlement instruction between Client and Broker	
Broker / Clearer / CCP	 Broker is cleared by a General Clearing member or himself (self-clearer), General clearing member receives reports from CCP and reports to Broker EOD Broker must check the executions with the CCP report/GCM General clearing member is facing CCP for Settlement, and Broker is facing General clearing member for settlement 	CCP – General Clearing Member - Broker set-up	
Custody Chain	 Actors can be in custody using different structures: Global Custody, Local custody, Direct at CSD Settlement instructions will follow the way account structure is designed, thru the custody chain The broker sends its settlements instructions to its Custodian The client sends its instruction to the global custodian Following the custody chain, and controls applied, instructions will reach CSD for matching The settlements is realized if controls are satisfied (ie broker and the client have securities or cash to settle) 	Investor is using a global custodian which is using a Local Custodian Broker is using a Local Custodian, all controls satisfied	
Securities lending / borrowing	 Portfolio optimization is done by investor to enhance returns Can be managed directly or through 3rd party agent 3rd party agent can the be investors global or local custodian 	Investor is using an external 3 rd party agent	
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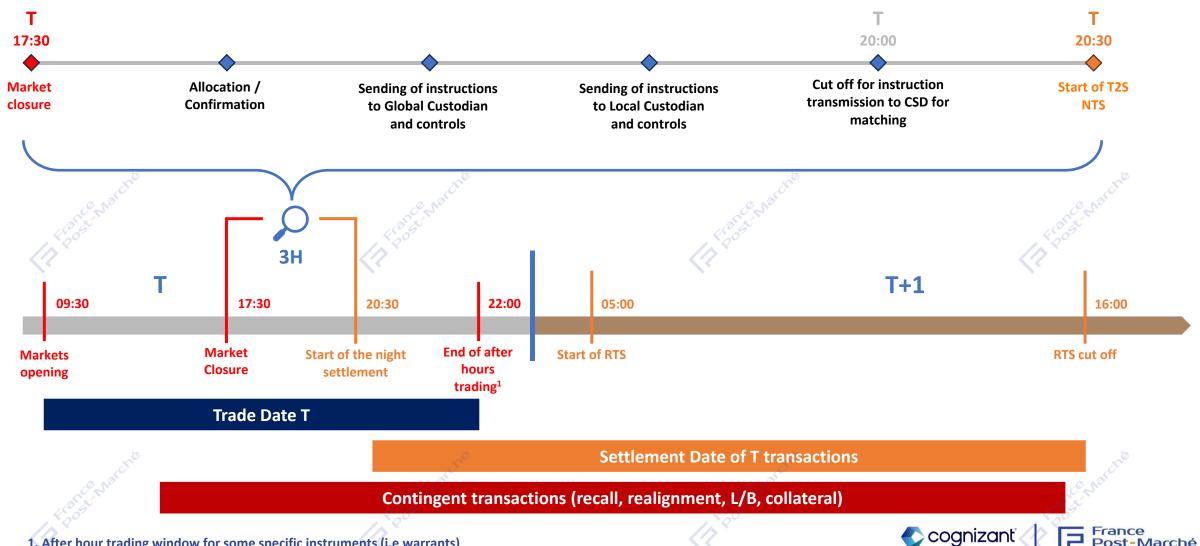
Timeline | Current Equity post trade process (T+2)

Standard settlement instruction process for transaction to be present at Night Settlement in T2S with transaction at T and settlement process at T+2



Provisional Timeline | Equity post trade process (T+1)

Provisional settlement instruction process for transaction to be present at Night Settlement in T2S with transaction at T and settlement process at T+1 Compression of process to reach Night Time settlement should the market keep same organization and deadlines



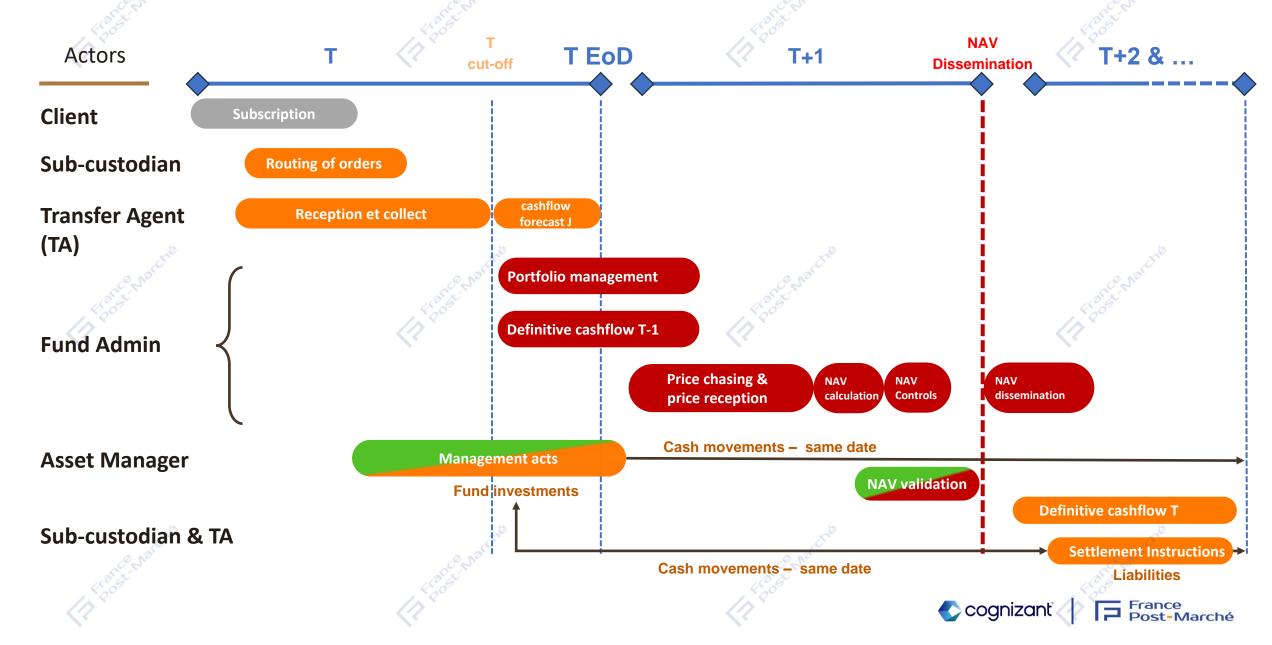
Main identified impacts of T+1 on intermediated transactions process

Process	Impacts ((1 ² 2	
	 Allocation / Confirmation process to b 	e executed on compressed time after trade or market closure		
Allocation / Confirmation cut off	 Suppose usage of automated and electronic means 			
	 SSIs must be kept up to date and ava 	ailable through electronic means		
Instructions through custody chain	 Instructions must be transmitted in the 	e Custody chain as soon as possible on trade date		
Clauray / Brakes as a siliation	 Clearer and Broker reconciliation must 	st be done at trade date	þ.	
Clearer / Broker reconciliation	 In case CCP margin call are done at 	trade date, there should also be capability to reflect it back to client	ace Marchie	
Kaja	 Controls of instructions and Custodia 	n and Sub Custodian must be executed on compressed time	Koge	
Custodian / Sub-custodian controls and instructions		e Custody chain as soon as possible on trade date after these contro ccelerated matching process and RELEASE function when position/o		
Inventory management	 Securities in European Market being during instructions controls, requiring 	multi listed and multi deposited missing positions are usually are ider realignement	ntified by Custodian	
Inventory management		be mandatory for client (front office) to manage accurately their inver n possible) anticipation mainly in short position cases	ntory of assets for	
	 Process usually intiated by Custodian 	on behalf of the client		
Security Lending / Collateral	 Because of shortened timeline lent or 	ut securities would have to be identified directly by the client		
e National Conditional		d party agent or positions lent as collateral it would become mandatone agent or to substitute collateral to require restitution of securities as		
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Fund Liabilities Management | Current standard situation (Settlement T+2 or more)

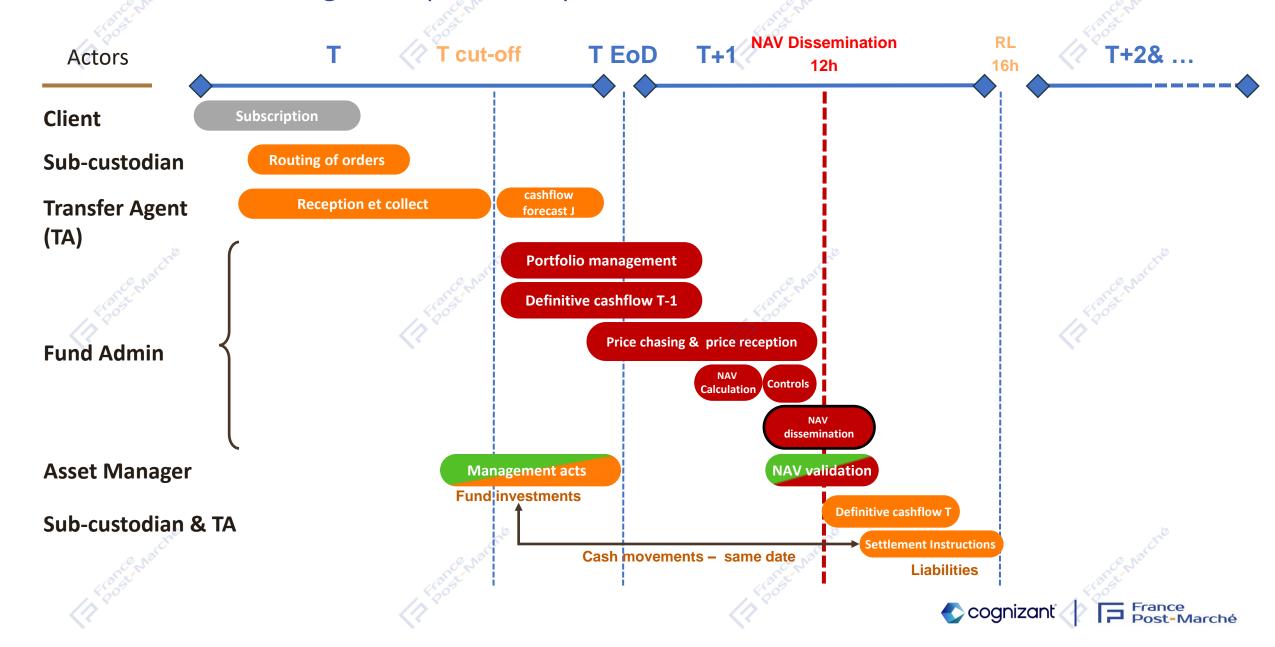


Fund Liabilities Management | Current standard situation (Settlement T+2 or more)

Actors	Process	Description		
Investor	Subscription	The investor send the subscription to his sub-custodian		
Sub-custodian	Routing of orders	The sub-custodian place the subscription order to the transfer agent		
Transfer agent	Reception et collect / cashflow forecast J	The transfer agent collect the order until prospectus cut-off time and collect all subscriptions – redemptions. At fund cut-off, he sends the cashflow forecast to the asset manager		
Asset manager	Management acts	The asset manager realizes the asset manager carries out its management actions according to the markets (1) Receives cashflow forecast from the Transfer Agent. He adjusts its investments according to the inflows received from the transfer agent (collect- decollect) (1) (1) All these tasks give rise to the transmission of instructions on the equity markets, as described in the diagram "Typical day1 - Equity markets".		
Fund Admin	Portfolio management / NAV Calculation	The Fund Admin receives and records portfolio and liability movements (collection valued on T-1). Researches and receives all closing prices for all securities in the portfolios (including those received on T). Calculates NAV, including variable costs, swing pricing, various provisions, etc. Carries out controls, including securities and cash reconciliations Distributes calculated NAV to manager for validation before official dissemination.		
Asset Manager	NAV validation	The Asset manager carries out its NAL checks and validates the NAV for dissemination.		
Fund Admin	NAV dissemination	On receipt of the NAV dissemination, the Fun Admin distributes the official NAV to stakeholders and providers.		
Transfer agent	Definitive cashflow T	On receipt of the official NAV, the transfer agent valorizes his books and sends to the asset manager and Fund Admin the definitive cashflow		
The transfer agent & sub-custodian	Fund shares settlement instructions	The transfer agent realizes the settlement delivery versus payment (DVP) with all sub-custodians (orders received at T)		



Fund Liabilities Management | Potential process in T+1 situation



Fund Liabilities Management | Main identified impacts in T+1 situation

Process	Impacts		<12°
Subscription		-	
Routing of orders		-	
Reception et collect / cashflow forecast J		-	
Management acts		-	
Portfolio management / NAV Calculation	out on T+1 at the earliest, within a reduced	timeframe (organization to be reviewed, tools to be ope	
NAV validation	Need to control and validate the NAV earlie) No flexibility for NAV correction	(organization to be reviewed, tools to be opened, FTE	presence, relocations (?),
NAV dissemination	Task to be anticipated as soon as possib	le: maximum distribution of NAV on T+1 12h	
Definitive cashflow T	Task to be anticipated as soon as possible: reception of the NAV on T+1 noon maximum for settlement T+1 4pm (if the asse manager wish an alignment between fund investment & liabilities management).		
Fund shares settlement instructions	management or alignment between fund inv	restments and liabilities management).	t dates on liabilities
	Subscription Routing of orders Reception et collect / cashflow forecast J Management acts Portfolio management / NAV Calculation NAV validation NAV dissemination Definitive cashflow T	Routing of orders Reception et collect / cashflow forecast J Management acts Portfolio management / NAV Calculation NAV validation Need to control and validate the NAV earlier) No flexibility for NAV correction NAV dissemination Task to be anticipated as soon as possible: manager wish an alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates to be defined a management or alignment between fund in New rules / settlement dates or alignment between fund in New rules / settlement dates / settle	Routing of orders Reception et collect / cashflow forecast J Portfolio management / NAV Calculation Receipt of prices cannot be anticipated before the end of the markets (T midnight). All of the follow out on T+1 at the earliest, within a reduced timeframe (organization to be reviewed, tools to be operelocations (?), etc.). No flexibility to calculate NAV NAV validation Need to control and validate the NAV earlier (organization to be reviewed, tools to be opened, FTE) No flexibility for NAV correction NAV dissemination Task to be anticipated as soon as possible: maximum distribution of NAV on T+1 12h Definitive cashflow T Task to be anticipated as soon as possible: reception of the NAV on T+1 noon maximum for settler manager wish an alignment between fund investment & liabilities management). Task to be anticipated as soon as possible. New rules / settlement dates to be defined according to Asset manager wishes (current settlement).

