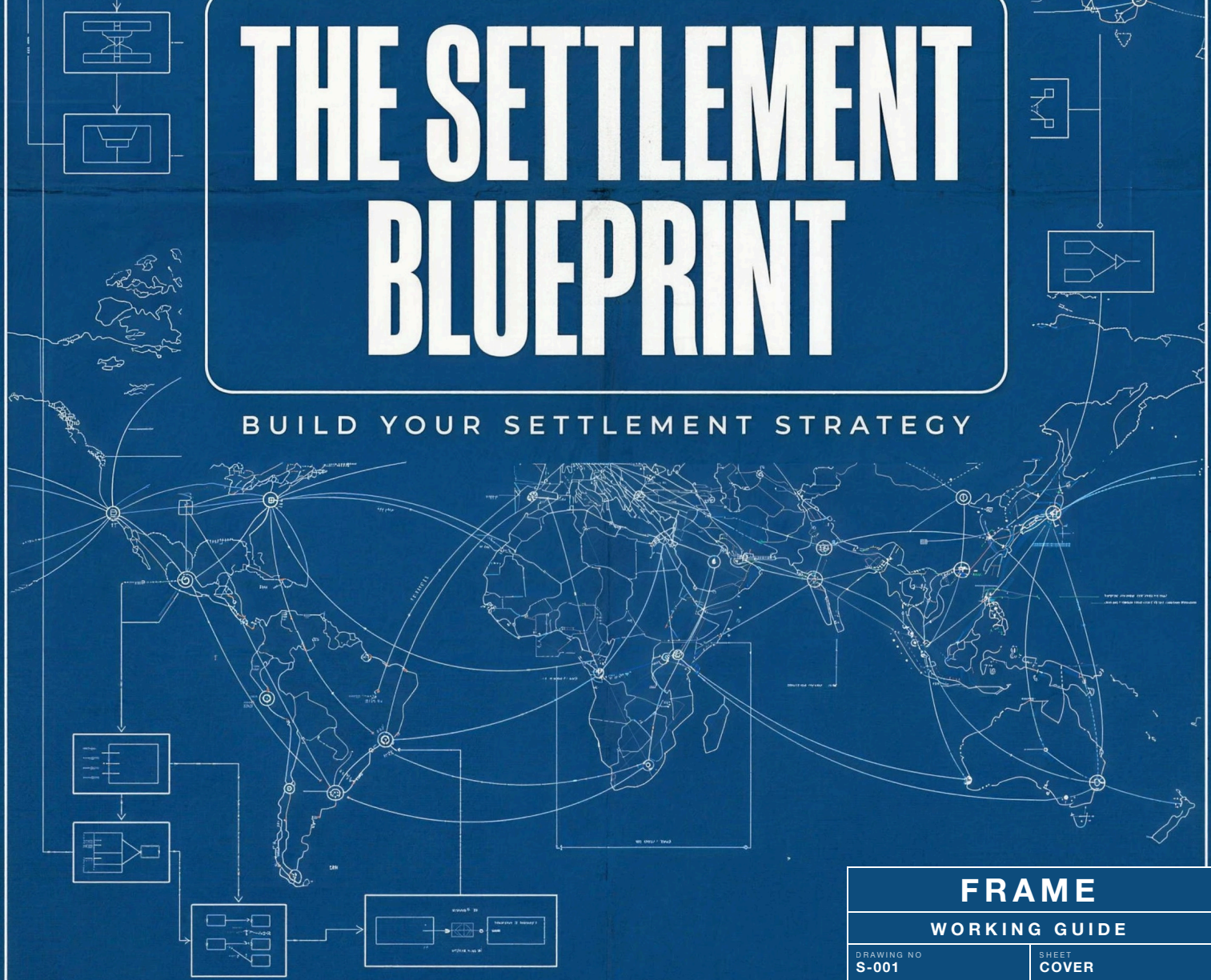
FRAME

THE SETTLEMENT BLUEPRINT

BUILD YOUR SETTLEMENT STRATEGY



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BUILD YOUR SETTLEMENT STRATEGY

A working guide to modernizing how your business moves money across borders: fiat rails, stablecoins, and tokenized deposits, weighed on the evidence, with the numbers to make the case internally.

01 WHY SETTLEMENT NEEDS A STRATEGY — Executive summary — 03

02 WHICH RAILS SHOULD CARRY YOUR MONEY? — Choose your rail mix — 07

03 WATCH A SETTLEMENT RULE WORK — The demo layer — 13

04 WHAT IS FRICTION COSTING YOU? — Make your business case — 16

05 WHERE DO YOU STAND WITH REGULATORS? — Understand compliance — 22

06 WHERE DOES THE COST ACTUALLY SIT? — Anatomy of settlement pricing — 26

07 HOW DO YOU ACTUALLY ADOPT THIS? — Choose your delivery model — 29

08 TWELVE STEPS TO A SETTLEMENT STRATEGY — Your modernization checklist — 32

CHAPTER 01 / 08

01

EXECUTIVE SUMMARY

WHY SETTLEMENT NEEDS A STRATEGY

The system that moves the world's money is fragmenting faster than it is connecting. Six paragraphs on what is actually happening, and the numbers that prove it.

FRAME		
WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 01	
DATE JUL 2026	REVISION A	SCALE NTS

EXECUTIVE SUMMARY

WHY SETTLEMENT NEEDS A STRATEGY

About $190 trillion crosses borders every year, and almost all of it still settles the way it did fifty years ago: through chains of correspondent banks that hold accounts with each other so that value can hop, ledger by ledger, from the sending bank to the receiving one. Each hop is a fee, a delay, and a place where the payment can fail.

The chain is getting longer. Active correspondent banking relationships fell 22 percent between 2011 and 2019 while the value moving across them rose, which means banks reach the same destinations through more intermediaries, not fewer. The tolls are measurable: wholesale transaction fees average $27 a payment across roughly 4.3 billion payments a year, about $120 billion before any foreign exchange cost, on 2020 data, the most recent authoritative figure in the field.

Speed fails at the seam. Within an hour of being sent, 88.5 percent of wholesale payments reach the beneficiary bank, but only 54.6 percent reach the beneficiary's account. The money arrives in the right country at the right institution and then waits at the boundary between the international system and the domestic one. The official scorekeeper has conceded the point: in October 2025 the Financial Stability Board reported that the G20's own 2027 targets for cross-border payments are unlikely to be met.

The industry's answer has been to build new rails rather than connect the old ones. Since January 2025, banks, card networks, stablecoin issuers, and central banks have launched or expanded fifteen institutional settlement networks. Of the 105 possible links between them, none settles natively into another today. The United States alone runs two real-time payment systems on the same message standard that cannot reach each other. In June 2026, seventeen banks, among them several of the largest, announced a shared tokenized-deposit network whose stated job is to build the connectivity layer that does not exist. They would not be building it if it did.

This guide takes a position on how to respond, and the position is rail-neutral. Fiat rails, stablecoins, and tokenized deposits are options with different strengths by corridor, counterparty, and currency. A durable settlement strategy treats them as a portfolio to be routed across, with one set of rules governing every flow, rather than a bet on a single winner. The evidence for that position, corridor by corridor and cost by cost, fills the chapters that follow.

Use it in order or jump by chapter: what the rails actually are and when each wins, a working demonstration of a settlement rule, the numbers for your business case including a calculator on your own volumes, the compliance map by region, where pricing really sits, how institutions adopt a settlement layer, and a checklist you can carry into your next planning cycle.

WORKED EXAMPLE

Take one concrete flow: a mid-size business moving $50 million a month across three common corridors. On correspondent rails, its bank-to-bank payments carry an average $27 in wholesale fees each, its treasury pre-funds accounts in every receive market so payouts do not stall, and nearly four in ten of its wholesale payments that arrive at the beneficiary bank within the hour still fail to reach the end account in that hour. Chapter 5 turns this into a calculator you can run on your own volumes.

THE NUMBERS THAT PROVE IT

15 / 0

Fifteen institutional settlement networks launched or expanded since January 2025. None settles natively into another.

FRAME RESEARCH, NETWORK INVENTORY, JUNE 2026

105

Possible links between those fifteen networks. The number built today is zero.

FRAME RESEARCH, NETWORK INVENTORY, JUNE 2026

“Unlikely”

The Financial Stability Board's own word for whether the G20's 2027 cross-border payment targets will be met.

FSB CONSOLIDATED PROGRESS REPORT, OCTOBER 2025

6.5%

Average cost of a $200 cross-border remittance, against the G20's 3% target. It has not fallen in any of the three years the FSB has measured.

FSB, OCTOBER 2025

54.6%

Share of wholesale payments that reach the end customer within one hour, against a 75% target.

FSB, OCTOBER 2025; SWIFT DATA, Q1 2025

$150–250B

Direct friction cost in cross-border payments every year, from sourced components alone. The floor, before the two largest costs are counted.

FRAME RESEARCH COST MODEL, 2026

EXECUTIVE SUMMARY

BUILT BY PEOPLE WHO HAVE RUN THIS PLAYBOOK

AT

Alexander Taskey

FOUNDER & CEO, FRAME

20 years scaling B2B payments infrastructure. Co-founded a payments orchestration business sold to AMCS Group.

LM

Lloyd Moore

CO-FOUNDER & CTO, FRAME

Ex-Blockdaemon CTO: scaled engineering from 9 to 200 and the company from pre-seed to a $3.25B valuation, $500B+ in transactions, zero security incidents.

NO

Nathalie Oestmann

COO, FRAME

Ex-COO of Curve and Outlier Ventures; 20 years at American Express; Ambassador, The Payments Association.

JJ

Joanna Jenkins

CHIEF COMPLIANCE OFFICER, FRAME

Ex-Head of International Compliance at Kraken; previously Railsr, Crypto.com, Deutsche Bank, ING.

NH

Noah Herman

CHIEF STRATEGY OFFICER, NORTH AMERICA

First go-to-market hire at Circle, scaled from zero to $100M; ex-Fortris, where stablecoin revenue grew from $4M to $20M ARR.

LM

Louisa Murray

CHIEF STRATEGY OFFICER, UK & EMEA

Chief Revenue Officer of Railsr/Equals Group for eight years.

CHAPTER 02 / 08

02

CHOOSE YOUR RAIL MIX

WHICH RAILS SHOULD CARRY YOUR MONEY?

Send, receive, hold, convert: four motions, three families of rail, and a corridor-by-corridor answer instead of a religion.

FRAME		
WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 02	
DATE JUL 2026	REVISION A	SCALE NTS

CHOOSE YOUR RAIL MIX

WHICH RAILS SHOULD CARRY YOUR MONEY?

Every cross-border flow decomposes into four motions: you send value out, you receive it in, you hold it between flows, and you convert it between currencies or forms. A settlement strategy is a decision about which rail carries each motion in each corridor. There are three families of rail to choose from, and the honest answer on the evidence is that each one wins somewhere.

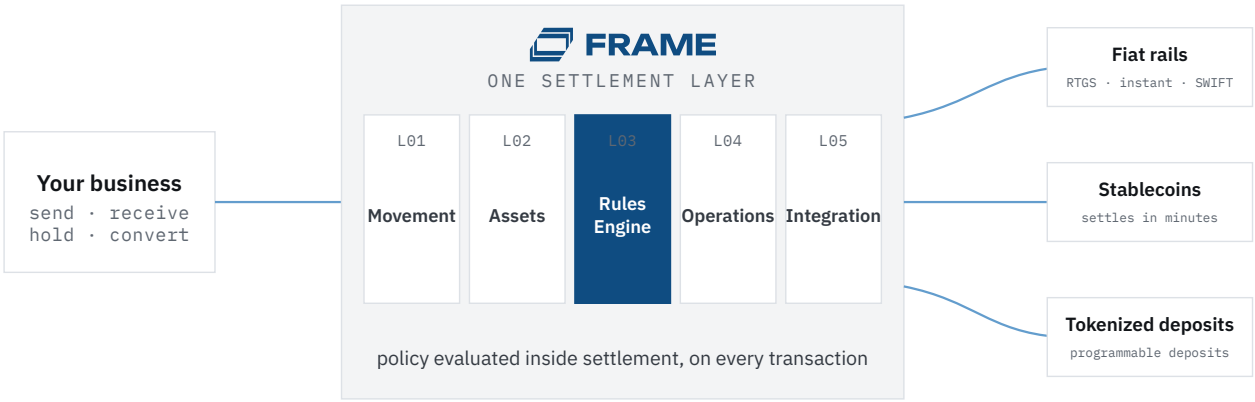
Fiat rails are the incumbent family: correspondent banking over SWIFT for reach, domestic real-time systems for the last mile, and regional systems like SEPA where they exist. Their strength is universality and legal certainty. Their weakness is the seam: the moment value leaves one system it falls back onto the correspondent chain, and the chain is where the cost and the delay live.

Stablecoins settle in minutes across borders and move value between institutions that share no banking relationship at all. Their strength is speed and reach into markets where the banking chain is thin. They introduce their own questions: issuer and reserve quality, the conversion step at each end, and a regulatory perimeter that now differs by region, which chapter 6 maps.

Tokenized deposits keep value inside the banking system while making it programmable and, increasingly, around-the-clock. Their strength is that the asset stays a bank liability with a known holder, which is the form regulators and conservative counterparties prefer. Their limitation today is membership: each network settles only among its own participants, and none of the major networks settles natively into another.

The structural fact to plan around: the rails are multiplying faster than they are connecting. Fifteen institutional settlement networks launched or expanded between January 2025 and June 2026; eleven are live; none of the 105 possible links between them exists natively today. Picking one winner means inheriting its walls. Routing across all of them, under one set of rules, is the strategy this guide builds toward.

ONE INTEGRATION, EVERY RAIL



One integration on the left, every rail on the right. The rail carrying each flow is a routing decision made by rule, per corridor, per payment.

ONE LAYER, FIVE PLANES

L01
MOVEMENT
Every rail, one interface: initiate, route, and settle across fiat rails, stablecoins, and tokenized deposits.

L02
ASSETS
The forms value takes: currencies, stablecoins, tokenized deposits, held and moved under one model.

L03
COMPLIANCE
The Rules Engine: policy evaluated inside settlement, on every transaction, before value moves.

L04
OPERATIONS
Visibility and control: positions, flows, exceptions, and audit across every rail in one place.

L05
INTEGRATION
One connection out to your stack: APIs and events, so five rails never mean five builds.

FOUR MOTIONS, CORRIDOR BY CORRIDOR

01 SEND

Move value out to a counterparty, supplier, worker, or seller in another market. The send decision is corridor by corridor: where the correspondent chain is short and the domestic rail is instant, fiat rails win on certainty; where the chain is long or the receive market is thinly banked, a stablecoin leg with local conversion can beat it on both cost and speed.

MOST USED BY
Any business with cross-border payables: supplier payments, merchant settlement, worker payouts, seller disbursements.

WHAT DRIVES THE CHOICE
Corridor cost and speed, counterparty preferences, and how much failure the flow can tolerate.

EXAMPLE
A $250,000 supplier payment from the US to Mexico: on the correspondent chain it carries wholesale fees and lands when the domestic leg clears; routed over an instant rail or a stablecoin leg with local conversion, it can land the same hour. The right answer depends on the counterparty's bank, and a rules-driven router can make that choice per payment.

02 RECEIVE

Collect value in from buyers, senders, or partner institutions. The receive side is where compliance screening actually happens, and where a modern setup pays off twice: funds arrive with the data needed to reconcile them, and screening runs before value is credited rather than after.

MOST USED BY
Businesses collecting from customers or partners abroad: acquirers, marketplaces collecting buyer funds, operators receiving partner settlements.

WHAT DRIVES THE CHOICE
Data quality on arrival, screening before credit, and reconciliation cost per payment.

EXAMPLE
A payment arrives with a beneficiary name that does not match the account. On legacy rails that is a repair: about $12 in handling cost, on 2023 data, and a day of delay. Received over a rail with structured data and pre-credit screening, the mismatch is caught before value moves.

03 HOLD

Keep value positioned between flows. Today that mostly means pre-funding: parking balances in nostro or partner accounts in every market where you might need to pay out, because settlement between systems is slow. Pre-funding is the quiet cost in most cross-border operations, capital that earns nothing and exists only because the rails do not connect.

MOST USED BY
Anyone who pays out on a schedule: the float sits wherever settlement is too slow to trust.

WHAT DRIVES THE CHOICE
Days of cover held, the cost of capital on those balances, and how quickly a faster rail lets them shrink.

EXAMPLE
There is no audited public figure for global trapped liquidity, which is itself part of the problem. The one primary scale signal: a full-migration scenario to a shared settlement network of the kind J.P. Morgan and Oliver Wyman model would cut commercial banks' overnight balances by about $10 billion. The calculator in chapter 5 prices your own version of this cost.

04 CONVERT

Change value between currencies, or between forms of the same currency: fiat to stablecoin, stablecoin to deposit, deposit to central bank money. Conversion is where the least visible cost lives, because FX margin is priced into the rate rather than shown as a fee. It is also where a rail-neutral strategy earns its keep: the cheapest conversion path differs by corridor and by day.

MOST USED BY
Every cross-border flow with two currencies in it, and increasingly flows that change form within one currency.

WHAT DRIVES THE CHOICE
Visible spread against the mid-rate, netting before converting, and freedom to choose the conversion venue per corridor.

EXAMPLE
Where a corridor is served mainly by banks, the same $200 transfer costs about three times what money-transfer and mobile operators charge, 15.0 percent against 5.0 percent on surveyed services, per Frame corridor analysis of World Bank data. The premium is mostly conversion margin, and it is the clearest public evidence that conversion pricing depends on the channel, not the currency pair.

CHOOSE YOUR RAIL MIX

COMMON QUESTIONS

What is a rail-neutral settlement strategy?

A strategy that treats fiat rails, stablecoins, and tokenized deposits as a portfolio to route across per corridor, under one set of rules, rather than a bet on a single rail. It exists because no rail wins everywhere: fifteen institutional settlement networks launched or expanded between January 2025 and June 2026 and none settles natively into another, so committing to one network means inheriting its walls.

Are stablecoins replacing correspondent banking?

In specific corridors they are winning flow, particularly where the correspondent chain is deep and the digital channel is roughly a third of the bank channel's price for the same transfer. Across the whole market, correspondent banking still carries most wholesale value. The practical question for a business is corridor-level: which rail wins on cost, speed, and compliance for each flow you actually run.

What are tokenized deposits and how are they different from stablecoins?

A tokenized deposit is a bank deposit in programmable form: the asset remains a claim on the issuing bank, held by a known customer inside the regulated banking system. A stablecoin is a bearer-style instrument issued against a reserve, transferable between parties who need not share a bank. Deposits fit institutions that must keep value on bank balance sheets; stablecoins reach counterparties and markets the banking chain reaches slowly or not at all.

CORRIDOR VIGNETTE

TWO CORRIDORS, ONE LESSON

Sending $200 from Kuwait to Pakistan costs 0.5 percent; there is no bank among the surveyed providers, and the price collapsed. Sending the same $200 from Tanzania to Kenya costs 58.2 percent on average, because banks are seven of the ten surveyed services and charge between 61 and 90 percent while the mobile option charges 11. Same product, same distance class, a hundredfold spread. The difference is the intermediary chain standing in the corridor, and that is the variable a settlement strategy actually controls.

~108x spread between the cheapest and dearest analyzed corridors (0.5% vs 58.2%, computed unrounded)

FRAME CORRIDOR ANALYSIS, WORLD BANK REMITTANCE PRICES WORLDWIDE, Q1 2025

CHAPTER 03 / 08

03

THE DEMO LAYER

WATCH A SETTLEMENT RULE WORK

No form, no sales call, no imagination required. A rule is written, a payment arrives, the flow re-routes, the evidence appears.

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WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 03	
DATE JUL 2026	REVISION A	SCALE NTS

THE DEMO LAYER

WATCH A SETTLEMENT RULE WORK

Reading about programmable settlement is one thing. Watching a rule route a payment is better. The demonstration below composes a settlement rule, receives a payment, and shows the flow re-route in real time as the Rules Engine evaluates it. It runs on its own; replay it as often as you like.

The mechanism to notice: the rule is evaluated inside settlement, before value moves, on every transaction. Policy that lives in the rail cannot be skipped by anyone, including you on a bad day. That is the difference between compliance enforced in settlement and compliance checked after the fact.

THE MECHANISM, IN FOUR STEPS

01

A rule is composed

Plain conditions, versioned like code, owned by your compliance team.

02

A payment enters

The Rules Engine evaluates it inside settlement, before value moves.

03

The flow re-routes

Routing, holds, and screening follow the rule, not a manual queue.

04

An audit line appears

Evidence is written as part of settlement itself, ready for any reviewer.

RULE 01 · PSP SETTLEMENT · THE RULE AS COMPOSED

```
IF merchant tier = platinum AND corridor = US → BR THEN settle T+0 via instant rail ELSE settle T+1 batch
```

A PAYMENT ENTERS	THE RULE'S ROUTE — ROUTE TAKEN	THE OTHER EXIT
$1.2M · US → BR · platinum merchant	instant rail settles T+0	default path T+1 batch

Platinum tier matches: settlement upgrades to T+0 over the instant rail, and the audit line records which rule fired, when, and on whose policy version.

```
▸ AUDIT · rule fired · policy v14 · evaluated in settlement · evidence written to the transaction record
```

The animated walkthrough at frame.xyz/blueprint plays five rules, one per segment; this is the first. The remaining four are on the next page.

THE OTHER FOUR RULES IN THE WALKTHROUGH

RULE 02 · REMITTANCE BATCH

IF corridor = UK → NG AND payout partner = mobile wallet THEN route via stablecoin leg AND convert at payout ELSE route via correspondent

ENTERS · $85,000 batch · UK → NG · 1,150 payouts ROUTES · stablecoin leg (converts at payout)

> ▸ AUDIT · rule fired · policy v14 · 1,150 payout lines · evidence written to the transaction record

RULE 03 · FX SETTLEMENT

IF trade = EUR/USD AND counterparty limit remaining < $5M THEN require payment-versus-payment settlement ELSE settle sequentially

ENTERS · $8M · EUR/USD · 71% of limit used ROUTES · PvP settlement (both legs atomic)

> ▸ AUDIT · rule fired · policy v14 · PvP enforced in settlement · evidence written to the transaction record

RULE 04 · PAYROLL RUN

IF run = monthly payroll AND corridor = US → IN AND value date = today THEN route via instant rail ELSE pre-position T-2 via fiat rails

ENTERS · $3.4M · US → IN · run of 4,100 workers ROUTES · instant rail (paid today)

> ▸ AUDIT · rule fired · policy v14 · 4,100 pay lines · evidence written to the transaction record

RULE 05 · MARKETPLACE PAYOUT

IF payee = new seller AND first payout THEN hold for enhanced verification ELSE release instant payout

ENTERS · $1,840 · US → MX · first payout, new seller ROUTES · verification hold (released on pass)

> ▸ AUDIT · rule fired · policy v14 · verification evidence attached · release written to the transaction record

CHAPTER 04 / 08

04

MAKE YOUR BUSINESS CASE

WHAT IS FRICTION COSTING YOU?

The flows, the fees, and the floor: the sourced numbers for the internal memo, then a calculator that prices your own corridors.

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DRAWING NO. S-001	SHEET CH 04	
DATE JUL 2026	REVISION A	SCALE NTS

MAKE YOUR BUSINESS CASE

WHAT IS FRICTION COSTING YOU?

Three numbers describe this market, and they answer different questions. The flows: about $190 trillion crosses borders each year, roughly $146 trillion wholesale and $44 trillion retail. The revenue: providers earn around $240 billion a year moving it. The cost: what is lost to friction along the way, and that is the number this chapter prices, because it is the one your business actually pays.

Frame research assembles the friction cost from audited components only, and presents it as a floor: at least $150 to 250 billion a year across direct wholesale fees ($120 billion, at $27 per payment across 4.3 billion payments, 2020 data), failed-payment repair (about $12 per repaired payment against a global straight-through-processing rate that runs as low as 26 percent), and the share of a roughly $206 billion global compliance bill attributable to duplicated, per-jurisdiction screening. The two costs most likely to be the largest, trapped liquidity and duplicated integration, have no audited public figure and are deliberately not in it. The real number is higher.

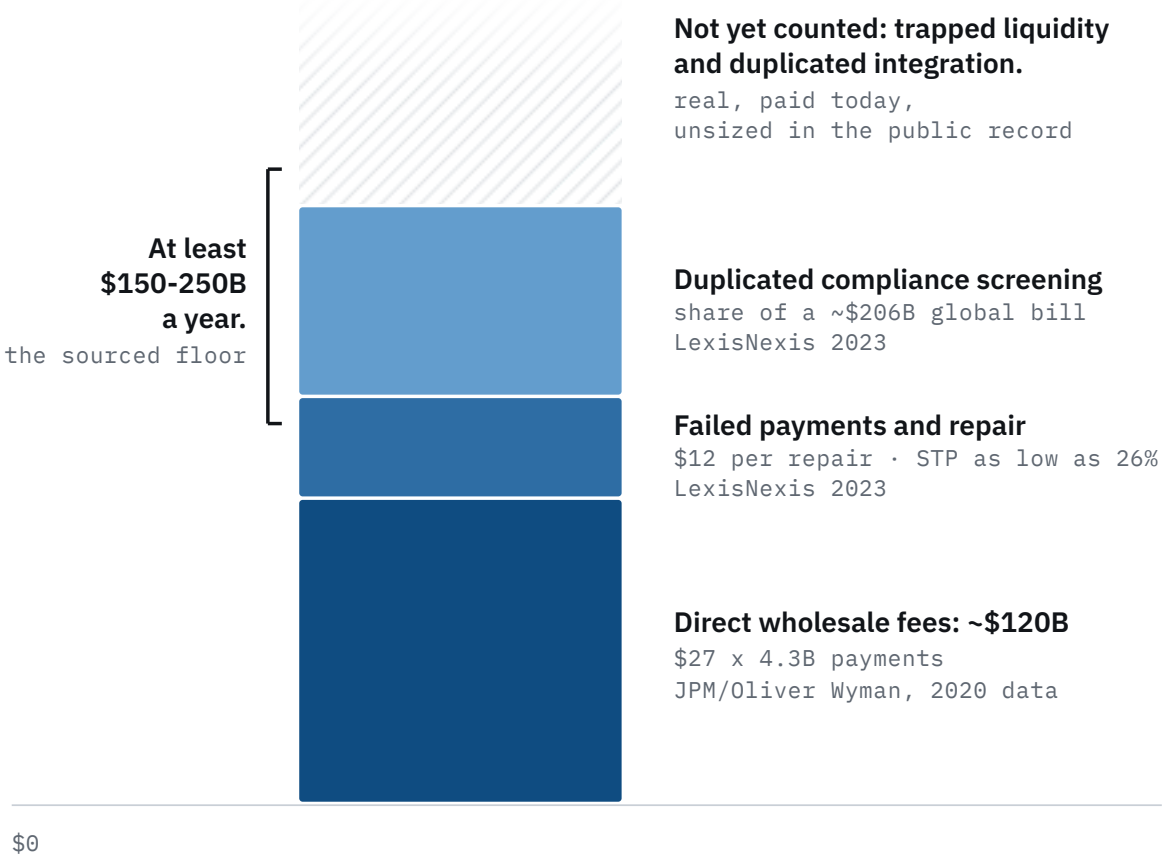
Your version of that floor is computable, and the calculator below computes it: your corridors, your volumes, your rails, decomposed into the same four components, with every constant sourced and every assumption yours to change.

CORRESPONDENT RAILS AGAINST MODERN RAILS, ON THE EVIDENCE

DIMENSION	CORRESPONDENT RAILS TODAY	MODERN RAILS, STRUCTURALLY
Speed to end account	54.6% of wholesale payments reach the end customer within an hour; the seam is the domestic last mile (FSB, 2025)	Instant rails and tokenized-asset legs settle in minutes around the clock; the constraint moves to the conversion step
Direct fees	$27 average wholesale fee per payment before FX (J.P. Morgan/Oliver Wyman, 2020 data)	No intermediary chain to pay per hop; the visible cost concentrates in the conversion step at each end
Failure and repair	Straight-through processing as low as 26%; about $12 per repaired payment (LexisNexis, 2023)	Structured data and pre-settlement validation catch mismatches before value moves
Liquidity	Pre-funding in every receive market; no audited global figure exists for the capital parked	Faster finality shrinks days of cover; netting and on-demand settlement release float
Transparency	FX margin priced into the rate; bank-dominated corridors disclose least (Frame corridor analysis)	All-in cost visible before send; every hop carried in the transaction record

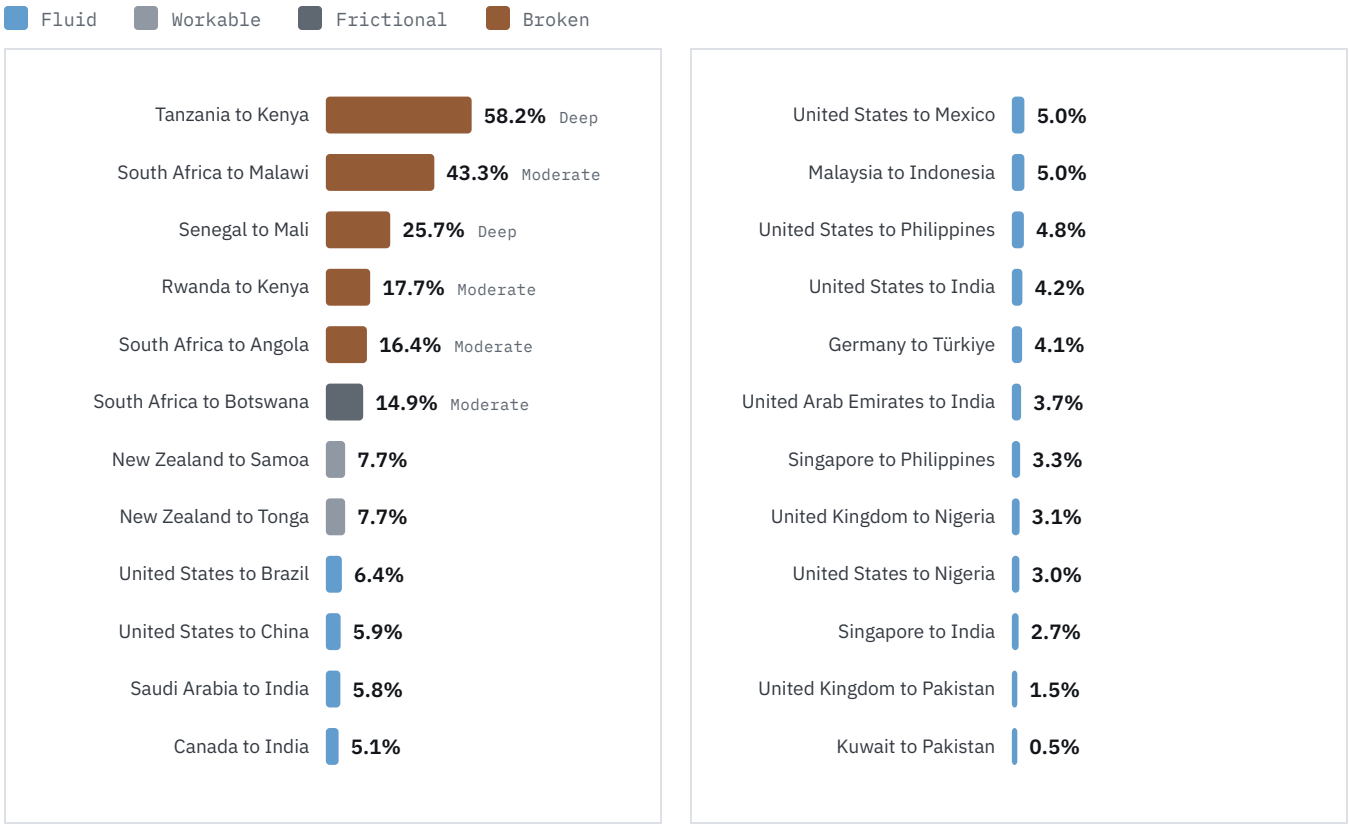
Rail-neutral read: "modern rails" spans instant fiat systems, stablecoin legs, and tokenized-deposit networks; which one wins is a corridor-level decision.

THE COST FLOOR, BUILT AND OPEN-TOPPED



Frame research cost model. The stack is a floor, never a total; the split between the repair and compliance bands is illustrative, the bracket is not. The widely circulated "trillions trapped in nostro" figure has no audited source and is deliberately absent.

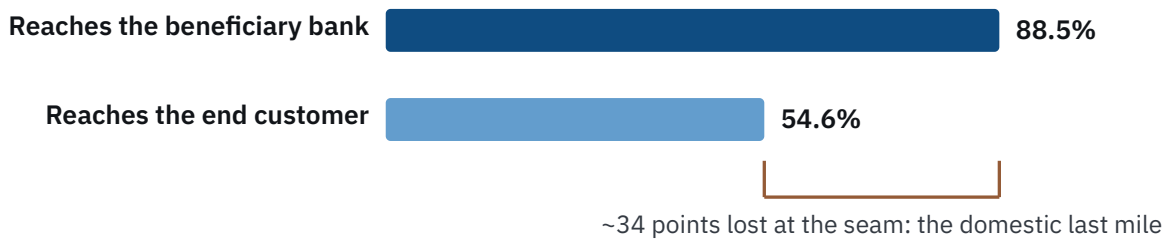
THE CORRIDOR FRICTION MAP: 24 PRICED CORRIDORS, RANKED



Tanzania to Kenya: banks are 7 of 10 surveyed services, charging 61-90%. Kuwait to Pakistan: no bank in the sample, and the cost collapses to 0.5%.

Frame corridor analysis: first-party computation from the World Bank Remittance Prices Worldwide dataset, Q1 2025, average total cost to send $200 across all surveyed services per corridor. Both columns share one scale. Depth = intermediary-depth band where non-shallow.

THE LAST MILE



Share of wholesale cross-border payments credited within one hour of being sent. FSB consolidated progress report, October 2025; underlying data SWIFT, Q1 2025.

IN THE ONLINE EDITION, THIS IS INTERACTIVE

THE SETTLEMENT FRICTION CALCULATOR

Your corridors, your volumes, your assumptions. Four cost components, every constant sourced, presented as a floor. Change any assumption; the model is yours.

WORKED EXAMPLE: $50M A MONTH ACROSS US TO MEXICO, US TO INDIA, SINGAPORE TO PHILIPPINES

MONTHLY VOLUME	AVG PAYMENT SIZE	ON CORRESPONDENT RAILS	PAYMENTS A YEAR
$50M	$25,000	70%	24,000

FX SPREAD (ASSUMPTION)	REPAIR RATE (ASSUMPTION)	PRE-FUNDING (ASSUMPTION)	COST OF CAPITAL (ASSUMPTION)
50 bps	8%	3 days	5%

Direct rail and network fees · $27 per correspondent-rail payment (J.P. Morgan/Oliver Wyman, 2020 data)	$453,600
Failed-payment repair · $12 per repaired payment (LexisNexis, 2023)	$23,040
FX spread on correspondent-rail flow · at the 50 bps assumption	$2,100,000
Pre-funding carry · $4,931,507 parked, at 5% cost of capital	$246,575

Estimated annual friction floor **$2,823,215**

Run it on your own volumes frame.xyz/blueprint#calculator

1. The $27 average wholesale fee per cross-border payment is 2020 data (J.P. Morgan and Oliver Wyman), the most recent authoritative figure; label it accordingly in your own deck.
2. The $12 repair cost per failed payment and the 26% straight-through-processing floor are LexisNexis Risk Solutions, 2023.
3. Corridor costs are Frame corridor analysis: first-party computation from the World Bank Remittance Prices Worldwide dataset, Q1 2025, average total cost to send $200 across all surveyed services.
4. FX spread, repair rate, days of pre-funding, and cost of capital are your assumptions, preset to conservative defaults and editable. The output is an estimate floor, not a quote.

MAKE YOUR BUSINESS CASE

COMMON QUESTIONS

How much does cross-border settlement friction cost?

At least $150 to 250 billion a year in direct, sourced costs across wholesale fees, failed-payment repair, and duplicated compliance screening, per Frame research. That figure is a floor: the two costs most likely to be the largest, trapped liquidity and duplicated integration, have no audited public number and are not in it.

What does a cross-border payment cost to send?

Wholesale payments carry an average $27 fee before FX costs, on 2020 data from J.P. Morgan and Oliver Wyman. For a $200 consumer remittance, the global average was 6.36 percent in the newest World Bank print, more than double the G20's 3 percent target, and banks average roughly three times the digital channel for the same transfer.

What is pre-funding and why does it cost money?

Pre-funding is parking capital in accounts in every market where you may need to pay out, because settlement between systems is too slow to move money on demand. The parked balance earns nothing and carries your cost of capital, and it scales with the days of cover you hold and every new market you open.

CORRIDOR VIGNETTE

EVEN THE BEST CORRIDOR HAS A BORDER

Germany to France is the control corridor in Frame's analysis: one currency, SEPA Instant live, near-zero cost, near-instant speed. It exists in the basket to show what solved looks like. And even here there is a seam: the instant rail stops at the SEPA border, and the moment value leaves the Eurozone it falls back onto correspondent banking. A genuinely fluid cross-border corridor, across different currencies and systems, barely exists. That is the gap between a good rail and a connected system.

88.5% → 54.6% wholesale payments reaching the beneficiary bank vs the end customer within one hour

FSB CONSOLIDATED PROGRESS REPORT, OCTOBER 2025; SWIFT DATA, Q1 2025

CHAPTER 05 / 08

05

UNDERSTAND COMPLIANCE

WHERE DO YOU STAND WITH REGULATORS?

Seven regions, the frameworks that matter, and the first practical check in each, current to July 2026.

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DRAWING NO. S-001	SHEET CH 05	
DATE JUL 2026	REVISION A	SCALE NTS

UNDERSTAND COMPLIANCE

WHERE DO YOU STAND WITH REGULATORS?

Regulation is the reason settlement modernization is possible at institutional scale, and the reason it must be done carefully. The map below orients you by region: the frameworks that govern payments and digital settlement assets, where each stood as of July 2026, and the practical first check before you route flow through a partner there.

One posture note that applies everywhere: operate under the permissions of your clients and licensed partners in each market, and let the settlement layer carry the evidence. Rules evaluated inside settlement produce, per transaction, the audit trail every regime below ultimately asks for.

EUROPEAN UNION

Verified July 2026

PAYMENTS AND E-MONEY

PSD2 and the E-Money Directive govern payments and e-money under national regulators; the PSD3/PSR package was agreed in late 2025 and is expected to apply around 2028.

STABLECOINS AND DIGITAL ASSETS

MiCA has been fully applicable since December 30, 2024. The transitional period for crypto-asset service providers ended July 1, 2026: serving EU clients now requires CASP authorization.

TRAVEL RULE

The recast Transfer of Funds Regulation applies from December 30, 2024, with no minimum threshold for CASP-to-CASP transfers.

> **ACTION POINT**
> Confirm your partner holds an EMI or PI license for fiat legs and full MiCA CASP authorization for digital-asset legs. Grandfathering is over.

UNITED KINGDOM

Verified July 2026

PAYMENTS AND E-MONEY

The Payment Services Regulations 2017 and E-Money Regulations 2011, under the FCA.

STABLECOINS AND DIGITAL ASSETS

The FCA published final cryptoasset rules on June 30, 2026; the regime goes live October 25, 2027, with an authorization window from September 2026 to February 2027. The Bank of England published its systemic-stablecoin proposals in June 2026.

TRAVEL RULE

In force since September 1, 2023 under the Money Laundering Regulations.

> **ACTION POINT**
> Check your partner is FCA-authorized for payments and registered for cryptoasset activity, and ask how they plan to land inside the September 2026 to February 2027 authorization window.

UNITED STATES

Verified July 2026

PAYMENTS AND E-MONEY

State-by-state money transmitter licenses plus FinCEN MSB registration; there is no federal money transmission license.

STABLECOINS AND DIGITAL ASSETS

The GENIUS Act, the federal stablecoin law, was enacted July 18, 2025. Implementing rules were still proposals as of July 2026; the regime takes effect on the earlier of January 18, 2027 or 120 days after final rules.

TRAVEL RULE

FinCEN's rule applies at $3,000; the proposal to lower it to $250 for cross-border transfers was never finalized.

> **ACTION POINT**
> Map your partner's state license coverage against where your senders and receivers actually are, and ask stablecoin issuers which GENIUS pathway they are filing under.

SINGAPORE

Verified July 2026

PAYMENTS AND E-MONEY

The Payment Services Act 2019 under MAS; cross-border transfers and digital payment tokens each require the right license class.

STABLECOINS AND DIGITAL ASSETS

MAS finalized its single-currency stablecoin framework in August 2023 and was drafting dedicated legislation as of 2026. Since June 30, 2025, Singapore-based firms serving only overseas customers must be licensed or cease.

TRAVEL RULE

MAS Notice PSN02 applies, with enhanced requirements above SGD 1,500.

> **ACTION POINT**
> Confirm your partner's MPI license covers the specific activities in your flow, and distinguish MAS-regulated stablecoins from generic digital payment tokens in any product language.

HONG KONG

Verified July 2026

PAYMENTS AND E-MONEY

Stored value facility licensing under the HKMA.

STABLECOINS AND DIGITAL ASSETS

The Stablecoins Ordinance took effect August 1, 2025: issuing fiat-referenced stablecoins in Hong Kong, or HKD-pegged ones anywhere, requires an HKMA license. The first two issuer licenses were granted in April 2026 from roughly 36 initial applicants.

TRAVEL RULE

In force since June 1, 2023, with enhanced requirements from HKD 8,000.

> **ACTION POINT**
> If a Hong Kong stablecoin is in your flow, verify the issuer is one of the very few HKMA licensees; for exchange partners, check the SFC license register.

UNITED ARAB EMIRATES

Verified July 2026

PAYMENTS AND E-MONEY

CBUAE retail payment services licensing on the mainland; four regulators cover the market by zone: CBUAE, VARA (Dubai), FSRA (ADGM), and DFSA (DIFC).

STABLECOINS AND DIGITAL ASSETS

The CBUAE Payment Token Services Regulation, issued June 2024, is in force with its transition period ended; only dirham-denominated tokens may be used for domestic payments, and algorithmic tokens are barred.

TRAVEL RULE

Applied through federal AML law and the VARA rulebook, with enhanced obligations above AED 3,500.

> **ACTION POINT**
> Identify which of the four regulators covers your partner's specific entity and activity before anything else; UAE authorization is zone-specific, not national.

LATIN AMERICA

Verified July 2026

PAYMENTS AND E-MONEY

Brazil: payment institutions under Law 12,865/2013 and the central bank's Pix ecosystem. Mexico: the 2018 Fintech Law's IFPE license under CNBV and Banxico is the non-bank route to holding client money.

STABLECOINS AND DIGITAL ASSETS

Brazil's VASP regime took effect February 2, 2026 with a 270-day adaptation window, and from October 1, 2026 eFX providers may not settle cross-border payments in stablecoins. Mexico has no dedicated VASP license; banks and IFPEs are barred from client crypto services.

TRAVEL RULE

Brazil: mandated by central bank resolution, phasing in from 2026. Mexico: no dedicated crypto travel rule confirmed; federal AML law applies.

> **ACTION POINT**
> In Brazil, check whether your flow touches the eFX regime before designing any stablecoin leg. In Mexico, confirm exactly which licensed entity holds client money at each step.

This table is orientation, current as of July 2026, and moves fast. It is not legal advice; confirm specifics with counsel in each market you operate.

COMMON QUESTIONS

Do stablecoin payments require a license?

In most major markets, some entity in the flow needs authorization, and since 2024 the regimes have hardened: MiCA authorization is now mandatory for crypto-asset service providers serving EU clients, Hong Kong licenses stablecoin issuers directly, and the US GENIUS Act brings federal issuer regulation into effect by early 2027. The practical check is which licensed entity in your chain carries each regulated activity.

What is the Travel Rule for payments?

The requirement to send originator and beneficiary information alongside a transfer so it can be screened. Thresholds differ by region: the EU applies it to crypto-asset transfers with no minimum, the US rule applies at $3,000, and Singapore requires enhanced data above SGD 1,500. A settlement layer that carries structured party data satisfies the data half of the rule by construction.

CHAPTER 06 / 08

06

ANATOMY OF SETTLEMENT PRICING

WHERE DOES THE COST ACTUALLY SIT?

Four seats at the table, one of them invisible on every invoice. Then the six questions that make any provider show you theirs.

FRAME		
WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 06	
DATE JUL 2026	REVISION A	SCALE NTS

ANATOMY OF SETTLEMENT PRICING

WHERE DOES THE COST ACTUALLY SIT?

Most settlement pricing conversations happen in the dark, because most of the cost is structural and undisclosed. This chapter is the flashlight: the four places cost actually sits in a cross-border settlement, what each one is made of, and the questions that make any provider show you their version of it.

THE VISIBLE LINE

NETWORK AND RAIL FEES

The per-payment tolls: wire fees, intermediary deductions, scheme and network charges. On correspondent rails each intermediary in the chain takes its own fee, which is why the same payment costs more on a longer route.

> Wholesale fees average $27 per payment across 4.3 billion payments a year, about $120 billion, before any FX cost (J.P. Morgan and Oliver Wyman, 2020 data).

THE HIDDEN LINE

FX SPREAD

The margin between the rate you get and the mid-market rate, priced into the conversion rather than itemized. It is the largest cost in most corridors and the least visible, and disclosure varies by channel more than by currency.

> Bank-dominated corridors disclose least and charge most: banks average 15.0% on a $200 transfer against 5.0% for digital channels (Frame corridor analysis, World Bank data, Q1 2025).

THE BALANCE-SHEET LINE

PREFUNDING CARRY

The cost of capital on balances parked in nostro and partner accounts so payouts do not wait for slow settlement. It scales with days of cover and with every new market you open, and it never appears on an invoice.

> No audited global figure exists, which is the point: the one primary scale signal is a J.P. Morgan and Oliver Wyman scenario cutting banks' overnight balances by about $10 billion under full migration to the shared settlement network their study models.

THE OPERATIONS LINE

FAILURE AND REPAIR

The cost of payments that bounce between incompatible systems: mismatched beneficiary data, missing identifiers, reconciliation breaks. Each repair is handling cost plus delay, and repair volume scales with the number of seams a payment crosses.

> About $12 per repaired payment, against a global straight-through-processing rate that runs as low as 26% (LexisNexis, 2023). Measured economy-wide, failed payments cost about $118 billion (Accuity, 2020 data).

SIX QUESTIONS TO ASK ANY PROVIDER, INCLUDING US

01 Show me the all-in cost of a $250,000 payment on my three largest corridors, including your FX margin against the mid-market rate at execution time.

02 How many intermediaries touch that payment, and which ones can deduct fees in flight?

03 What share of my payments will require manual repair, and who pays for the repair?

04 How much do I have to pre-fund, in which markets, and what happens to my payout schedule if I pre-fund nothing?

05 When is settlement final, as distinct from when a confirmation message arrives?

06 Can I see, per transaction, which compliance checks ran and what they concluded?

COMMON QUESTIONS

Why do banks charge more for cross-border payments?

Mostly structure rather than pricing choice: bank flows ride the correspondent chain, and each intermediary adds fees, FX margin, and repair risk. The measurable result, per Frame corridor analysis of World Bank data: banks average 15.0 percent on a $200 transfer where money-transfer and mobile operators average 5.0 percent, and the premium is widest in the corridors with the deepest intermediary chains.

What should I ask a settlement provider before signing?

Six questions do most of the work: the all-in cost on your top corridors including FX margin at execution, the number of intermediaries in the chain, the expected repair rate and who pays for repair, the pre-funding requirement per market, when settlement is legally final, and whether you can see per-transaction compliance evidence.

CORRIDOR VIGNETTE

THE 3X PREMIUM, AND WHO PAYS IT

Across corridors analyzed by Frame research, banks average 15.0 percent to send $200 while money-transfer and mobile operators average 5.0 percent: three times the price for the same transfer. On the most bank-dependent corridors the premium reaches 70 percentage points. Value responds predictably: it routes around the expensive channel, and the balance and the relationship go with it. Whoever owns the cheaper path in a corridor collects the flow, which is the entire commercial logic of modernizing settlement before your competitors do.

3X what the bank channel costs over the digital channel for the same $200 transfer (15.0% vs 5.0%)

FRAME CORRIDOR ANALYSIS, WORLD BANK REMITTANCE PRICES WORLDWIDE, Q1 2025

CHAPTER 07 / 08

07

CHOOSE YOUR DELIVERY MODEL

HOW DO YOU ACTUALLY ADOPT THIS?

Three honest routes, compared structurally: what you build, what you keep, and the integration arithmetic nobody shows you.

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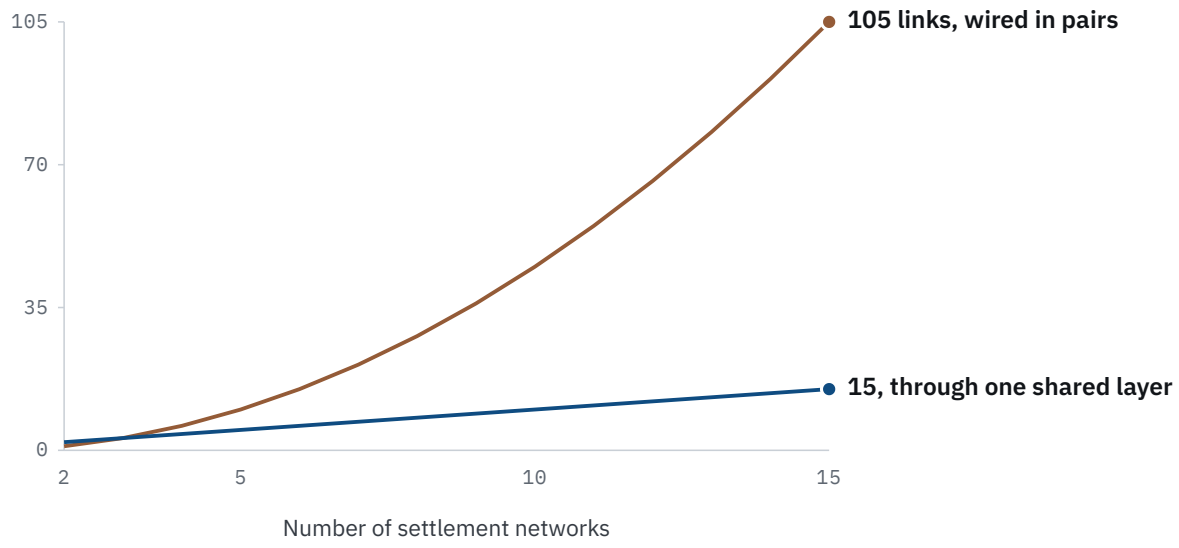
WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 07	
DATE JUL 2026	REVISION A	SCALE NTS

CHOOSE YOUR DELIVERY MODEL

HOW DO YOU ACTUALLY ADOPT THIS?

There are three honest ways to modernize settlement, and they trade speed against control in different proportions. The table compares them structurally: what you build, what you keep, and where the effort concentrates. The arithmetic that governs the third column is worth knowing before any vendor conversation: connecting to each settlement network separately needs a number of links that grows with the square of the network count, which is why the official sector built Project Nexus to replace per-corridor connections with one.

THE INTEGRATION ARITHMETIC



Pairwise links = n(n-1)/2. The fifteen networks in Frame's June 2026 inventory would need 105 bilateral links to interconnect; none exists natively today. Replacing per-corridor connections with one is the design goal the official sector set with BIS Project Nexus.

THREE HONEST ROUTES, COMPARED STRUCTURALLY

THROUGH YOUR EXISTING BANKING PARTNERS

Ask the institutions you already bank with to carry new rails on your behalf as they add them.

TIME TO GO LIVE
Fastest to start; bounded by each partner's own roadmap

RESOURCE NEEDED
Low: commercial and compliance work, little engineering

WHAT YOU KEEP
Existing relationships and contracts; least operational change

FITS WHEN
Your corridors are few, your volumes are moderate, and a partner already covers the markets you care about.

INTEGRATE A SETTLEMENT LAYER

One integration that routes across fiat rails, stablecoins, and tokenized deposits under your own rules, operating under client permissions or licensed partners in each market.

TIME TO GO LIVE
One integration project; new rails and corridors arrive as configuration afterward

RESOURCE NEEDED
Medium: your existing engineers against one API surface; policy work sits with compliance, not code

WHAT YOU KEEP
Your client relationships, your policy control, your choice of rail per corridor, with evidence written into every transaction

FITS WHEN
You run multiple corridors, expect your rail mix to change, and want routing decisions in policy rather than in code.

BUILD DIRECT CONNECTIONS YOURSELF

Integrate each rail, network, and payout partner directly, and maintain each connection as it evolves.

TIME TO GO LIVE
Longest: each network is its own project, and the count grows with every new rail

RESOURCE NEEDED
High: dedicated engineering per connection, plus permanent maintenance as each network changes

WHAT YOU KEEP
Maximum control over every hop, at maximum cost; every new network multiplies the integration surface

FITS WHEN
You are effectively an infrastructure company already, with the team and the roadmap to be one indefinitely.

CHAPTER 08 / 08

08

YOUR MODERNIZATION CHECKLIST

TWELVE STEPS TO A SETTLEMENT STRATEGY

Twelve items, in the order a planning cycle actually meets them. Forward this section to whoever owns the roadmap.

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WORKING GUIDE		
DRAWING NO. S-001	SHEET CH 08	
DATE JUL 2026	REVISION A	SCALE NTS

YOUR MODERNIZATION CHECKLIST

TWELVE STEPS TO A SETTLEMENT STRATEGY

Twelve items, in the order a planning cycle actually meets them. Forward this section to whoever owns the roadmap.

01 Map your corridors: volume, current rail, landed cost, and settlement time for each, so the baseline is on one page.

02 Price your friction floor with the chapter 5 calculator: fees, FX spread, repair, and prefunding carry on your own volumes.

03 Count your pre-funded balances by market and put a cost of capital against them; this is usually the largest recoverable number.

04 Measure your repair rate and cost per repair against the 26% global straight-through-processing floor.

05 Rank corridors by intermediary depth: where the bank chain is deepest, the modernization gain is largest.

06 Decide your rail posture per corridor: fiat rails, stablecoin leg, tokenized deposits, or a routed mix, on the evidence rather than a default.

07 Write your settlement rules in plain language first: thresholds, screening, routing, holds. If a rule cannot be written down, it cannot be enforced in settlement.

08 Check the compliance map for every region you touch, and log the first-check action point for each partner.

09 Put the chapter 7 questions to your current providers and record the answers; silence is also an answer.

10 Choose a delivery model deliberately: partners, a settlement layer, or direct builds, with the n-squared integration arithmetic in front of you.

11 Define the evidence standard: what your auditors, partners, and regulators should be able to see per transaction, and reject any design that cannot produce it.

12 Pick one corridor and run a controlled pilot before any broad migration; the corridor data in this guide tells you which one to pick.

THE TEAM ON THE OTHER SIDE OF THE CONVERSATION

NO

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COO

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JJ

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NH

Noah Herman
CHIEF STRATEGY OFFICER, NORTH AMERICA

First go-to-market hire at Circle, scaled from zero to $100M; ex-Fortris, where stablecoin revenue grew from $4M to $20M ARR.

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CHIEF STRATEGY OFFICER, UK & EMEA

Chief Revenue Officer of Railsr/Equals Group for eight years.

GO DEEPER

The Settlement Glossary · `frame.xyz/glossary`
The Insights hub · `frame.xyz/insights`
The Blueprint online, with the calculator and the live walkthrough · `frame.xyz/blueprint`

The Settlement Blueprint

TALK SETTLEMENT WITH US

Bring your corridors and your volumes. We will bring the corridor data and an honest read on which rails earn a place in your mix. Thirty minutes, no deck required.

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