

SMART ASSETS

A CASE STUDY BY HYPERGLADE

Implementing smart assets for trade finance

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Introduction

This case study explores the transformative potential of Smart Assets—digital assets embedded with smart contracts and enriched with risk data. This innovative approach empowers a broad spectrum of investors to access markets that were traditionally complex and opaque.

Smart Assets enable direct credit provision to real-world business operations, offering an efficient alternative to traditional financing methods. *This infrastructure revolutionizes the investment landscape, granting granular level visibility of asset classes to better understand intrinsic and relative value. The demystification of the risk reward paradigm enables investors direct access to a highly transparent asset classes that were historically challenging to navigate.*

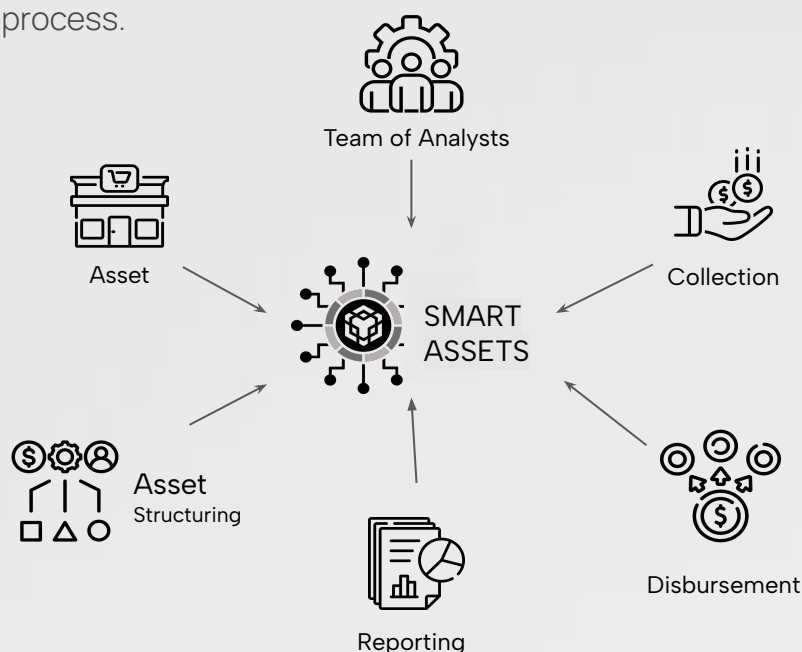
In this case study, we examine how Smart Assets address a critical challenge in trade financing—a sector facing a growing gap driven by limitations of incumbent systems.

Background

Blockchain's capabilities for **real time settlements**, ensuring **verifiable transactions**, and **managing data** have unlocked unprecedented opportunities in the financial sector. Hyperglade has harnessed these features, leveraging smart contracts and blockchain transparency to introduce a **new class of Smart Assets**.

Smart Asset infrastructure allows us to **transform traditionally opaque assets into automated, self-executing, data rich, transparent investments**. Investors and Portfolio Managers can, not-only track historical performance and evaluate market opportunities, - but also automate the end to end transaction process.

Smart Assets encapsulate **various functions of a traditional asset** into a single blockchain asset.



Hyperglade is utilizing these features of blockchain to **provide higher visibility into the securitization process**, enabling better assessment of risk-reward dynamics between investors and asset originators. There is significant headroom which creates an opportunity for disruption.

According to a [Blackrock report in 2024](#), only **5% of the specialty financing market is currently served by private asset-backed lenders**, mirroring the early stages of private credit expansion in corporate lending and real estate. Smart Assets can disrupt financial markets that are traditionally inaccessible to private investors.

The Problem

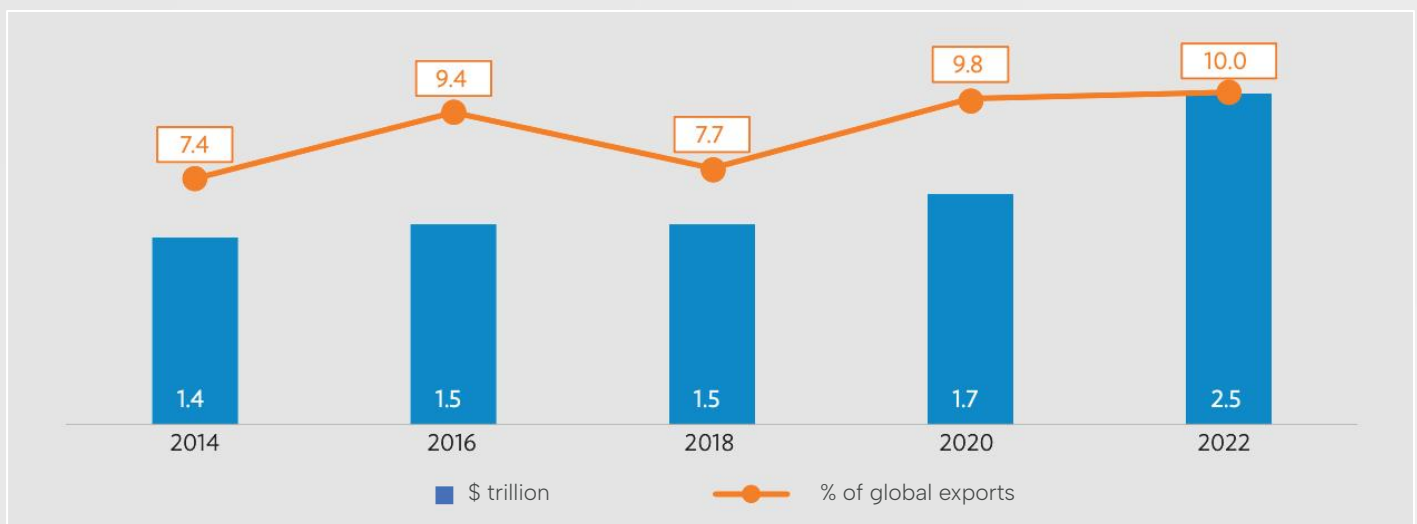
Hyperglade is utilizing Smart Assets as a solution to a trillion dollar problem in trade financing.

Our thesis and go to market is focused on the **USD 2.5 Trillion global trade finance gap**, as stated in a [2023 ADB report](#). The operational complexities, bottlenecks in circulation of liquidity, and inefficiencies offer a prime opportunity for blockchain technology to fundamentally disrupt how trade finance is carried out through an efficient mechanism of capital allocation.

[ADB's 2023 report](#) highlights the widening of the global trade finance gap and underscores the need for international cooperation to address the global trade finance gap and calls for a concerted effort from all stakeholders, including governments, financial institutions, and international organisations, to find sustainable solutions.

Our case study illustrates how Smart Assets can provide scalable solutions to liquidity crunches in supply chains, while opening up new investment opportunities.

Global Trade Finance Gap



Sources: [ADB, 2023](#) Trade Finance Gaps, Growth, and Jobs Survey—Banks; and World Trade Organization. WTO Data. <https://data.wto.org/> (July 2023).

Existing frameworks for trade finance

The current trade finance landscape heavily relies on outdated financial technology systems, many of which date back to the 1970s. These legacy systems remain prevalent, despite advancements in technology.

Efforts by banks to explore blockchain-based settlement solutions have faced significant resistance, largely due to entrenched biases and an absence of first-principle thinking in evaluating traditional methods. For instance, a [study by IBS reveals](#) that over 55% of banks consider the limitations of their core systems to be a major barrier to business success.

Challenges in receiving credit

The current framework faces bottlenecks that get exacerbated due to limitations of the underlying technology and processes.



Credit Assessment

- Depends heavily on historical banking relationships.
- Tends to exclude viable businesses without extensive credit history or collateral.



Audit & Documentation

- Remains largely fragmented and/or disconnected, creating delays and increasing fraud risks.
- Settlement processes typically involve multiple intermediaries.



Cross-border transactions

- Misaligned payment systems and expensive transactions.
- Different banking hours delays payments.
- Particularly impacting small businesses that lack established banking relationships.

Challenges in investing in trade finance

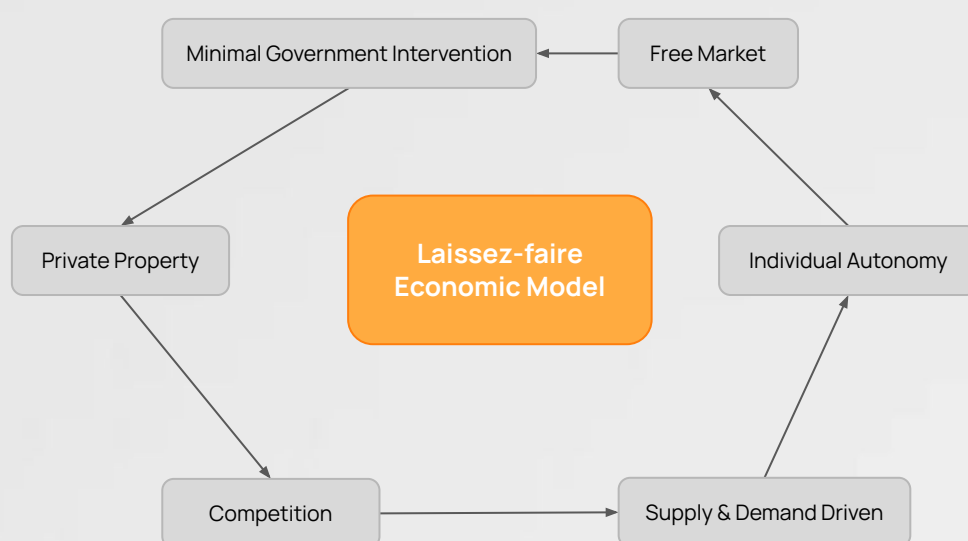
Trade financing is typically facilitated by financial institutions *through short and long term credit tied to a collateral or long standing relationships with banks*. This has created a convoluted system, where data is opaque and institutions with the most amount of touch points enjoying the largest sum of the generated yield.

For example in the traditional approach banks and financial Institutions provide the *invoice discounting* services to clients who have receivables. This is an archaic approach that has existed for two millenia - grown out of necessity, not particularly an ingenious financial engineering.

This system by design is discouraging of technological innovation, as maintaining status quo is more feasible for incumbents than innovation. However without incumbent adoption, it would be difficult to scale this technology, therefore creating strong commercial incentives including sustainable costs and efficiency gains are paramount for this successful transformation.

Theoretical Framework

Trade finance is a product of capitalism and globalization. At its core, for optimum trade to take place, the modality should better emulate a "*Laissez-faire*" approach - which champions market autonomy over centralized control. This perfectly aligns with blockchain's core promise: enabling direct, trustless transactions between parties.



This convergence of economic theory and technology creates a natural framework for truly efficient global trade.

The future of trade finance lies **not in more regulation, but in less intervention.**

Smart Assets: A Solution

Smart Assets represent the evolution of financial instruments, where blockchain infrastructure enables automated execution, embedded analytics, and programmable compliance within a single digital asset.

Hyperglade is extending the concept of Smart Contracts on blockchain, which allows automated execution of instructions, to build an asset class which embed compliance, risk management, and performance analytics directly into their structure while maintaining immutable audit trails of all transactions and market interactions.

Attribute	Smart Assets	Traditional Assets
Automated distribution	✓	X
Standardized, access-controlled data	✓	X
Embedded Audit trails	✓	X
Real-time processing (Stable coin settlements)	✓	X
Atomic cross -border settlements on stable coins	✓	X

Smart Contract based assets are already being used in various DeFi applications, but current implementations often fail to bridge the gap with traditional finance effectively.

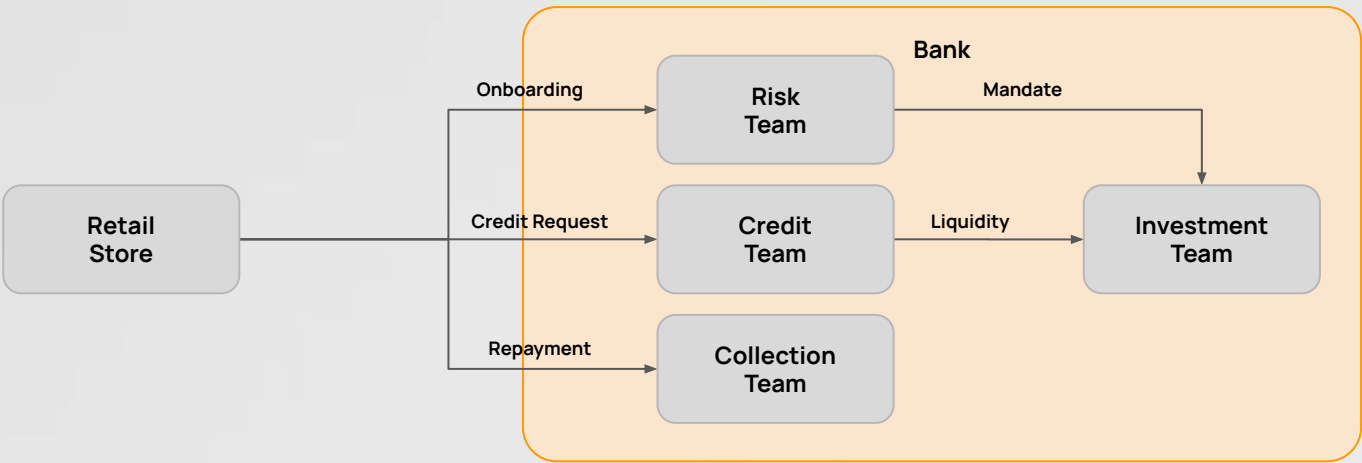
True integration requires robust data enrichment layers, interoperable oracle networks, and upgradeable smart contracts that can handle real-world complexity.

The key is not just implementing blockchain technology, but building the necessary infrastructure to connect traditional financial data and processes with on-chain execution.

Smart Assets are being used to disrupt trade financing by creating new opportunities, analysing risk and automating labour-intensive processes.

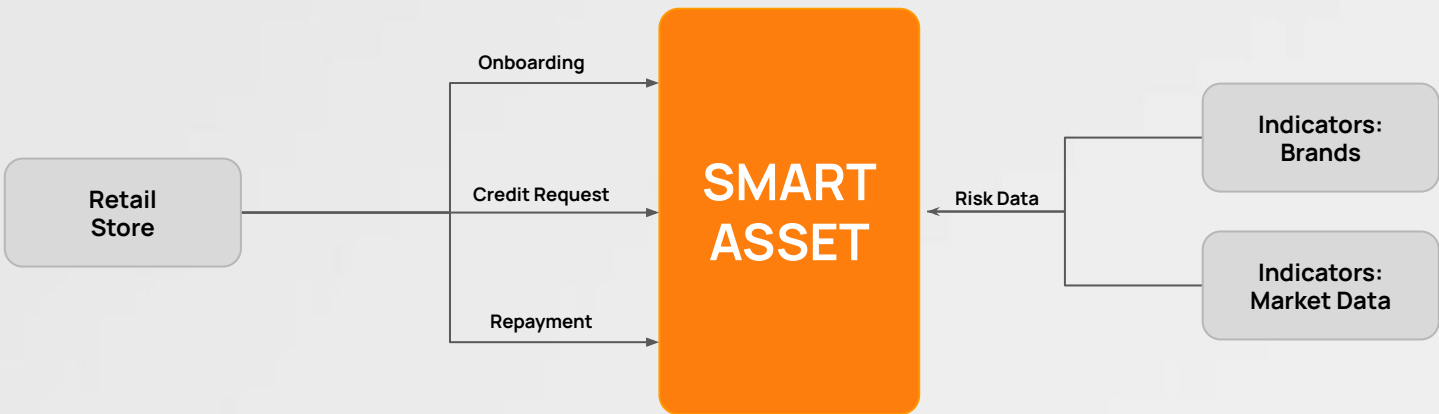
Trade Financing - How it works now

Currently trade financing is predominantly executed via overdrafts and credit lines that are setup using individual credit scores, collateral and historical banking relationships. In this scenario, credit lines are provided to retailers, backed by deposits which includes savings and money market funds.

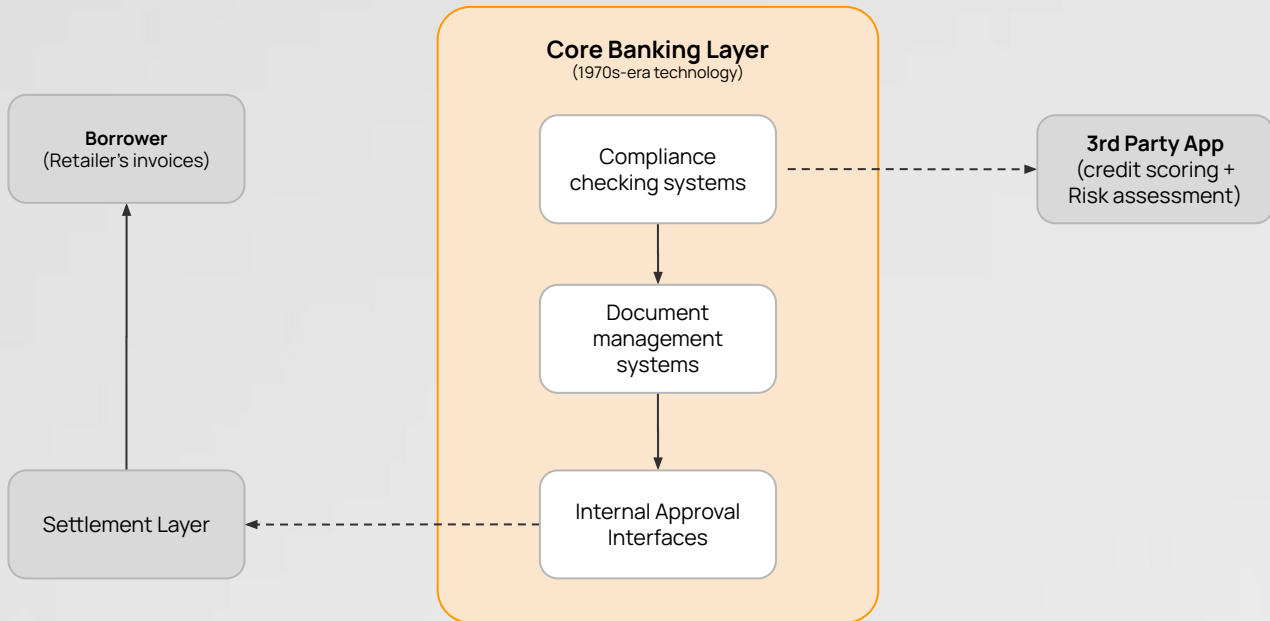


Trade Financing with Smart Assets

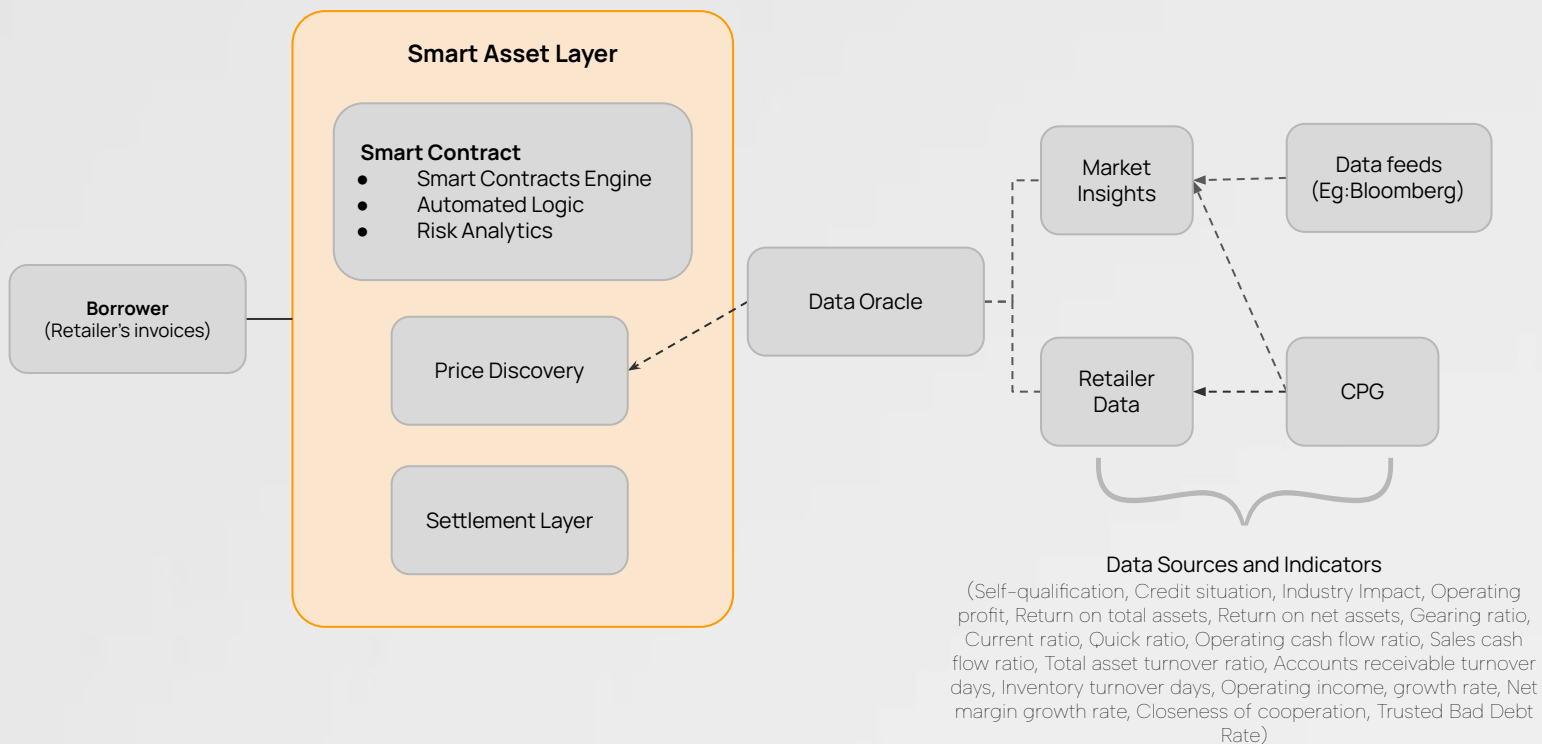
With Smart Assets, the complex operational heavy lifting is done through automated smart contracts that are fed indicators to assess the risk of borrowers and instantly provide credit and disburse income to the investors.



Traditional Approach



Hyperglade's Smart Asset Based Approach



Hyperglade's Smart Asset backed approach has created many benefits for the borrowers and investors alike.

Action	Status Quo	Hyperglade
Onboarding	i. Borrowers need to initiate and go through a time consuming process.	Pre-approved list of borrowers from partner brands.
	ii. Longer application processing time.	Thousands of borrowers are instantly onboarded with a single partnership.
	iii. High operational cost due to human intervention in KYC and application process.	KYC data is collected via partner brands, streamlining the borrower signup process.
Cost	Traditional payment rails that are expensive and prices out smaller transactions.	Use of stable coins reduces transaction costs allowing smaller and more frequent transactions to take place.
	Cross border payments require multiple systems to work in tandem, which often delays the reconciliation while being expensive.	Optimized using stablecoins for transactions, reducing friction and cost.
Price Discovery	Price is set using standard systems that are not curated for the dynamic changes of trade financing.	Dynamic with oracle and transparent. Can be individually dynamic. Narrowed and singled out.
Risk Assessment	Requires extensive relationship with the borrower, good credit history of owners and / or collateral.	Utilize borrower's operational performance for risk assessment.
	Each decision point may require new data pulls.	Automated cascading of decisions.
	Rich data exists but often siloed across systems	Each transaction enriches the risk model in real time.
Operation	Teams of analysts, financial executives and accountants are required to onboard, analyse, disburse and collect.	Self-executing logic based on data state changes allowing for continuous disbursement and collection once the system is in place.

Hyperglade's approach

Solving supply chain financing with Smart Assets

Out of the global trade finance gap we highlighted earlier, nearly one third of this is attributable to financing gaps experienced in supply chains, this is acutely visible in last mile delivery (B2C).

The consumer packaged goods market, (an area where consumer spending is categorized as non-discretionary), accounts for over 70% of the consumer price index (CPI). Despite the elastic nature of demand for CPG goods, which enables a better understanding of risk, and easier models of forecast, working capital is scarce in downstream markets with lenders reluctant to engage with last mile delivery partners.

Understanding the market.

Our primary focus at present is the consumer packaged goods market (CPG), where we are uniquely positioned to cater to:

- **Short Cycle Financing:**
Consumer packaged goods have short credit cycles. (7-14 days) This feature drastically reduces duration risk, thus increasing positive uptake by investors.
- **Requirement for rapid deployment of funds:**
Last mile delivery of consumer goods happens at a retail level in short cycles. This creates requirements for rapid deployment of funds, which is currently supported by bank overdrafts. The roll over frequency, and payment history provides data points for robust risk modelling, and tranching, this would create a more scalable securitized product.
- **Difficulty in collateralising fast-moving inventory:**
Retail stores deal with rapidly turning inventory (often daily/weekly cycles) but traditional collateral frameworks are designed for static assets.

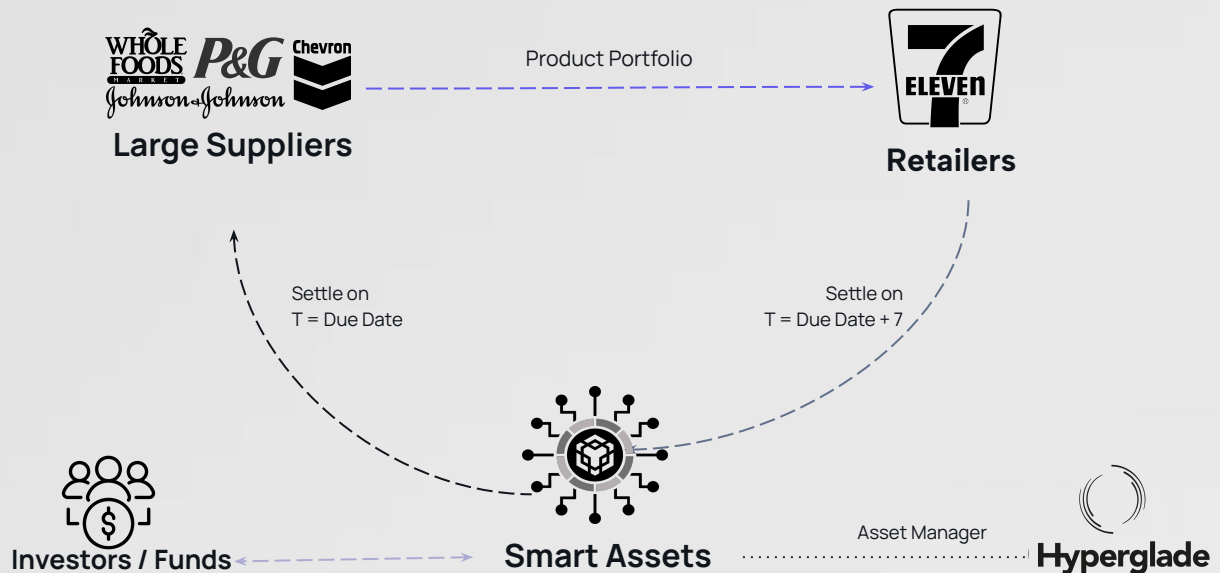
Financial innovation has moved at a snail's pace in the consumer packaged goods market despite it being a trillion dollar industry. Traditional financing partners typically prefer longer-term, asset-backed lending arrangements in which decades-long frameworks have been established.

This presents a unique opportunity for Hyperglade to roll out an **open loop** lending facility, with our **blockchain backed smart asset approach** directly addressing key pain points:

- Real-time settlement for short financing cycles.
- Secure encryption enables trust between multiple parties.
- Transparent data management allows for better risk assessment.

Understanding the borrower and risk

The key to successful supply chain financing lies in deeply understanding both the borrowers and their risk profiles:



1. **Hyperglade works closely with CPG (Consumer Packaged Goods) suppliers** who are directly affected by retailer issues at the end of the supply chain. This direct connection provides unique insights into the borrower ecosystem.
2. **Through strategic partnerships with major CPG manufacturers we gain:**
 - Access to validated supplier networks.
 - Historical credit and performance data on the retailers.
 - Industry-specific risk patterns.
 - Industry-specific revenue targets and optimal credit requirements.
3. **Hyperglade performs a proprietary risk evaluation of retailers, using CPG data:**
 - a. Transaction History metrics, including sales variance, payment history, purchase order frequency, and completeness of data
 - b. Repayment History metrics, including loan repayment, credit utilization, debt servicing
 - c. Business Longevity metrics, business age and growth indicators

This structured approach allows us to minimize risk through partner-validated borrowers while scaling our lending operations responsibly.

Setting up credit

We align our approach with optimum allocation of credit, where controlled credit supply serves as a market stabilization mechanism. We recognize that increased credit availability doesn't necessarily translate to proportional consumer demand, and as such carefully match the supply and demand with data from industry partners.



Blockchain-Enabled Asset Intelligence

- **Smart Contract Risk Management:** Our comprehensive risk modeling frameworks are implemented through automated smart contracts, ensuring consistent and transparent execution of risk assessment protocols.
- **On-Chain Transaction Lifecycle:** Each financing cycle is tracked as digital tokens on the blockchain, creating an immutable record of all transactions and their performance metrics.
- **Data-Rich Token Architecture:** Our tokens incorporate critical economic fundamentals, including performance metrics, payment history, and supply chain relationships, enabling real-time auditing and verification.

Stage I: Origination & Validation

Use data from CPGs to perform due diligence on retailer performance and select eligible retailers. (Borrowers)

Stage II: Tokenization & Structuring

Create digital asset and setup smart contract with rules for disbursement and collection.

Stage III: Distribution & Management

Investor uses smart assets to provide liquidity. Smart contract distributes credit and automatically distributes collected yield. Continuous reporting and optimizations.

Through this infrastructure, traditional supply chain financing is transformed into a data-enriched digital asset class. This tokenization not only enhances transparency and efficiency but also creates new opportunities for intelligent portfolio management and risk assessment.

Conclusion

The introduction of blockchain-powered Smart Assets by Hyperglade marks a transformative shift in how trade finance assets are created, managed, and distributed.

Blockchain technology provides an ideal platform for more equitable distribution and efficient allocation of capital. By replacing opaque, intermediary-heavy systems with data-enriched, transparent digital infrastructure, Hyperglade addresses the critical global trade finance gap.

Smart Assets enable the seamless connection between institutional capital and underserved markets, offering a scalable solution that aligns investor goals with real-world economic needs. Through dynamic credit management, advanced risk modeling, and tokenized investment pools, Hyperglade has established a new institutional-grade asset class designed for efficiency, transparency, and equity.

This innovative approach not only revolutionizes trade finance but also paves the way for a more accessible and inclusive financial ecosystem, ensuring that both businesses and investors benefit from an optimized, blockchain-driven future.

Further Reading

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