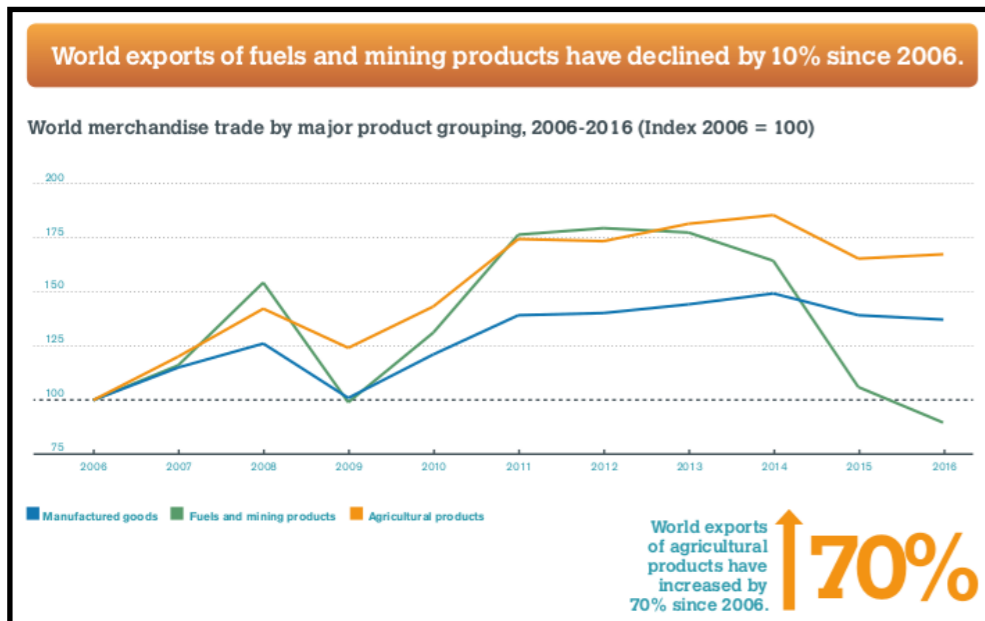
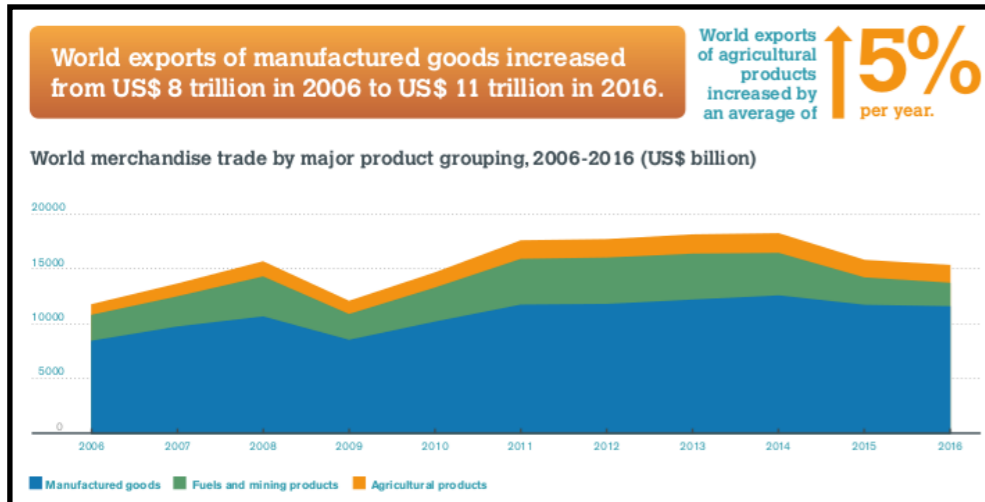
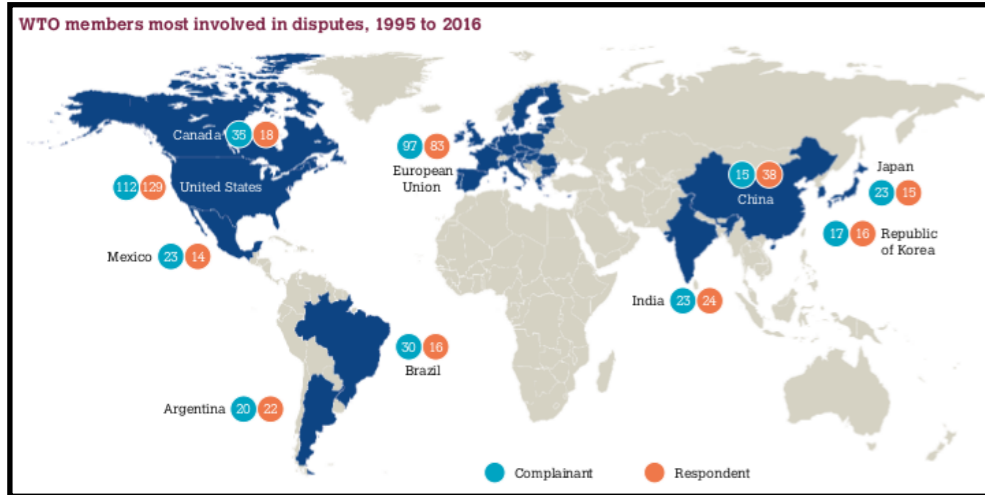
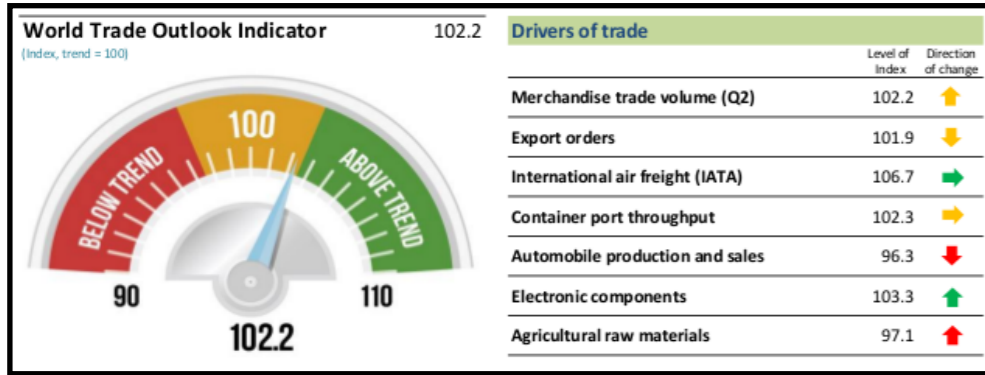
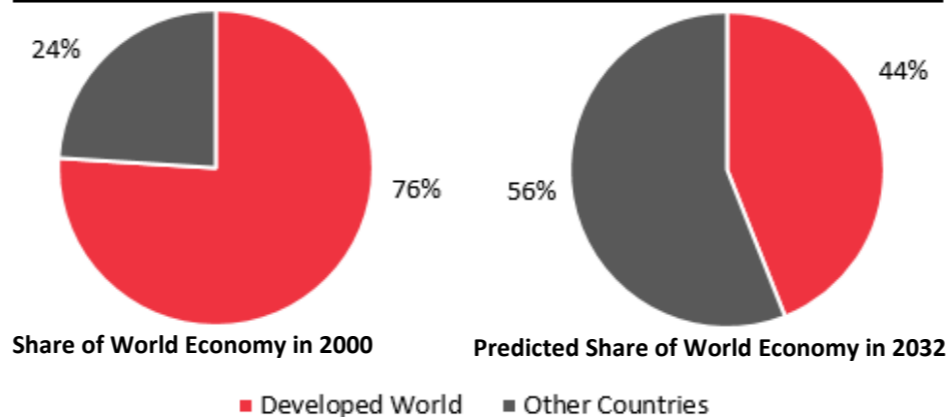
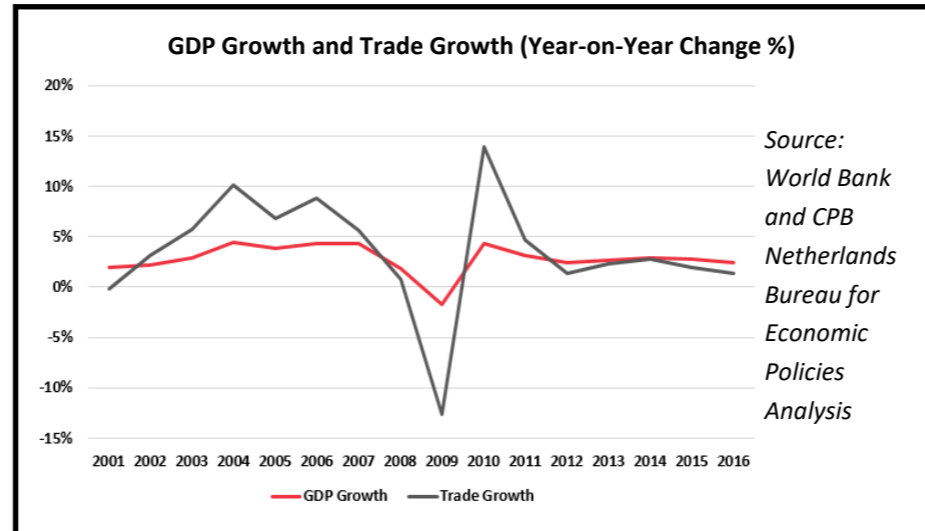
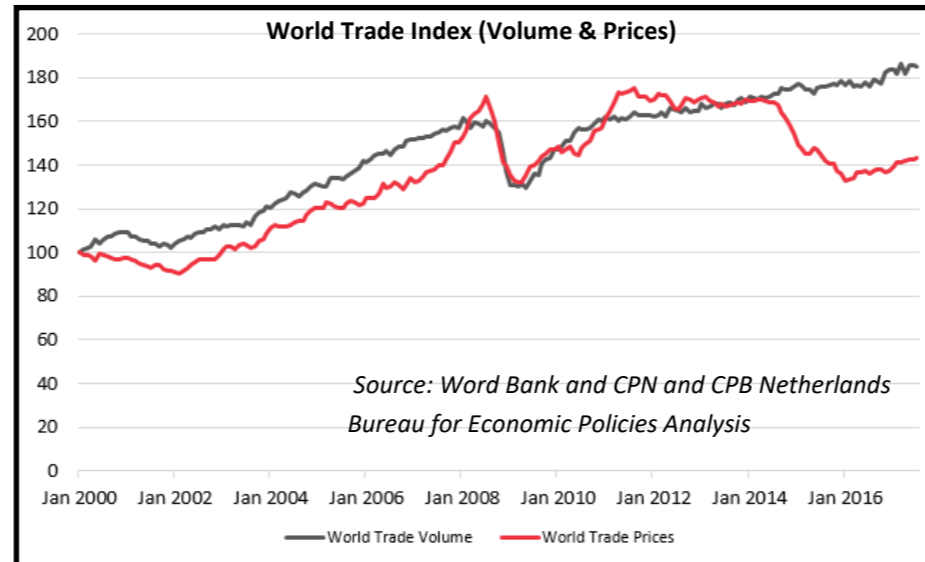
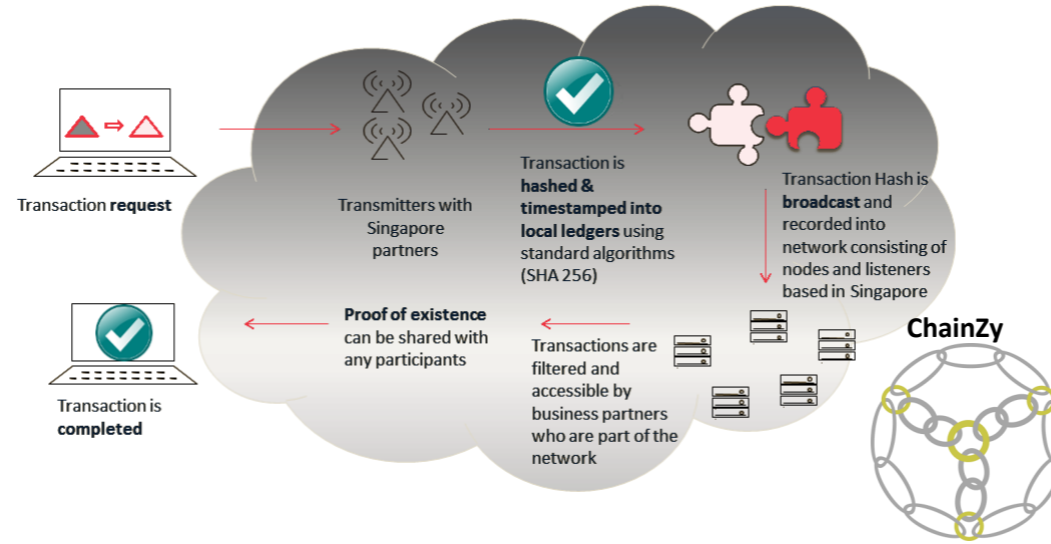


Recent World Trade Organisation Data



Smart Ledgers and Trade

Fast Track Trade Distributed Ledger Technology Network for Singapore and Asean



LONG FINANCE

DISTRIBUTED FUTURES

The Economic Impact Of Smart Ledgers On World Trade

April 2018

CARDANO FOUNDATION

IACCM

CITY OF LONDON

Cebr

The Worshipful Company of World Traders, along with Z/Yen and Long Finance's Distributed Futures research programme, sponsored by the Cardano Foundation, commissioned Cebr (Centre for Economic and Business Research) to quantify the potential impact of Smart Ledger technology on international trade. The report will be launched in April 2018.



World Trade

International trade creates and channels wealth and prosperity throughout the world. An efficient and effective global trading system allows goods and services to flow to where they are needed most, through price signalling. In turn, trade generates value through economies of scale and specialisation.

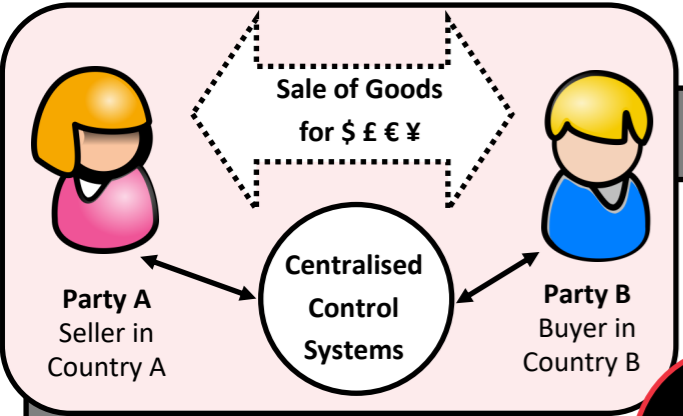
International trade allows countries to exploit economies of scale by producing for a bigger mass market than would be achievable domestically. The efficiency gains are then transferred to consumers through lower prices. Other economic benefits are channelled to workers through higher salaries.

World Trade

Barriers

- ◆ **Direct Barriers**
 - * Tariffs
 - * Embargos
- ◆ **Indirect (Non-Tariff) Barriers**
 - * Quotas
 - * Domestic subsidies
 - * Customs delays
 - * Varying degrees of development
 - * Cultural & linguistic differences

Barriers



Classic Trade Structure

Potential Problems

- ◆ Data flows liable to leaks & breaches
- ◆ Lack of control
- ◆ Need for data repositories
- ◆ Centralised checking/verification services
- ◆ Agent action/adaptation constraints

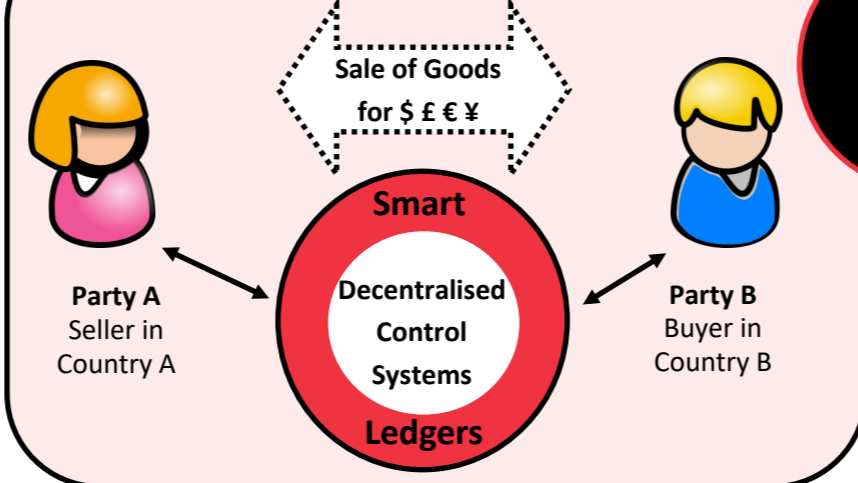


Smart Ledger Proposition

- ◆ Automated solutions relying on collaborative platforms
- ◆ Fewer information asymmetries
- ◆ Better control over central third parties
- ◆ Identity, documentation, and agreement exchange
 - * Identity validation
 - * Documentation & consolidation of trade information
 - * Agreement exchange & payment clearing
 - * Provenance - security/integrity of supply chain



Identity, Documentation, and Agreement Exchange



Trade Structure & Smart Ledgers

How much of an impact can Smart Ledger technology have in alleviating non-tariff barriers?



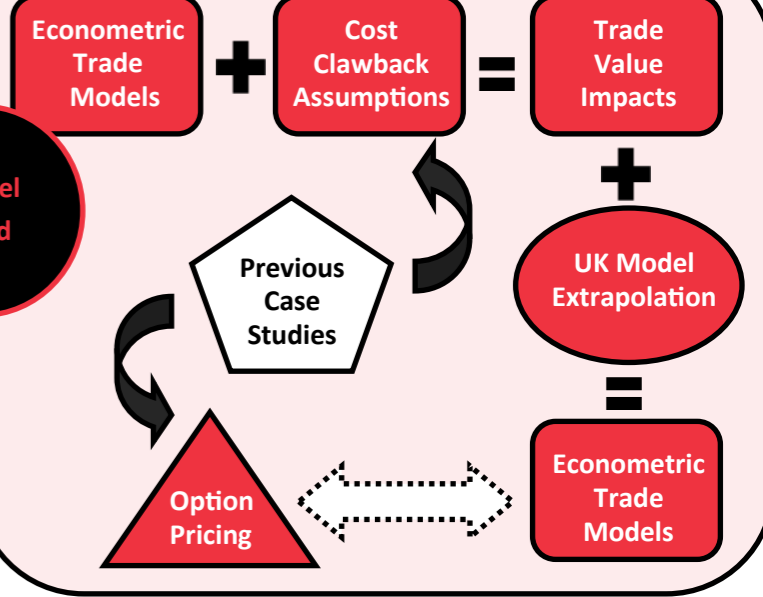
Smart Ledgers & World Trade

Smart Ledgers and World Trade

Smart Ledgers are mutual distributed ledgers (MDLs, aka blockchains) with embedded, executable code. MDLs are multi-organisational databases with a super-audit trail that rely on cryptography to ensure their functionality and integrity, as well as to control viewing permissions.

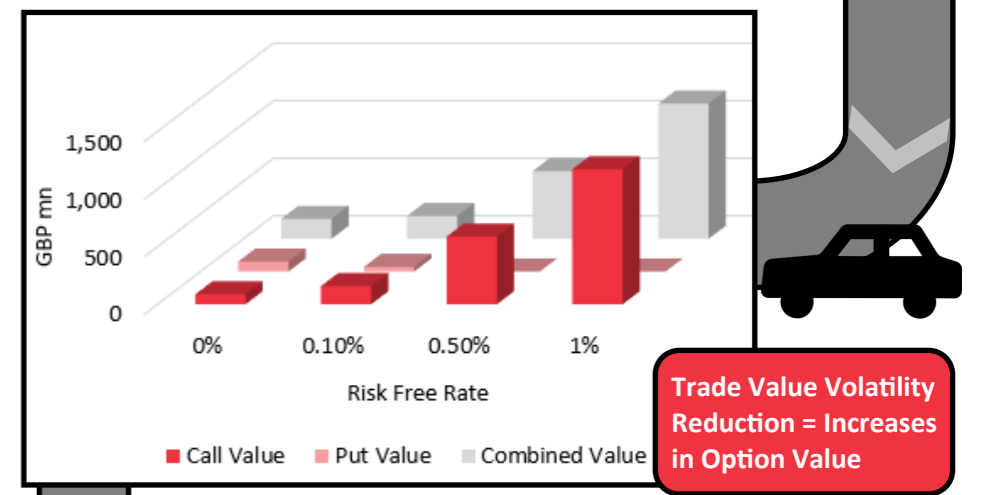
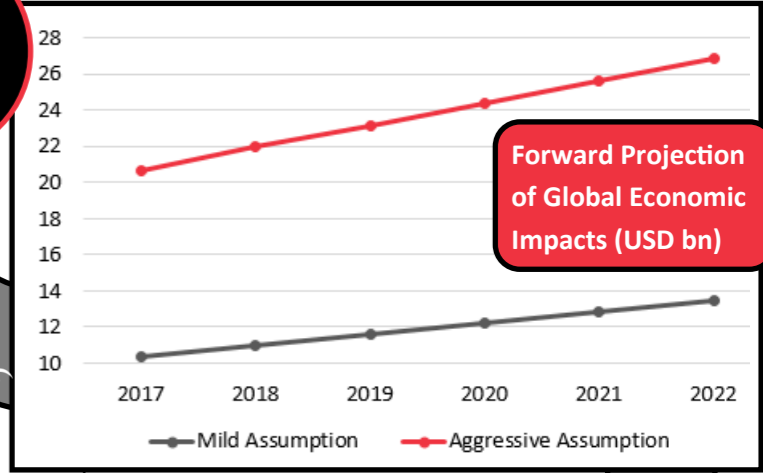
Smart Ledgers are able to specify rules about the use of data within the MDL, for example "release this ship's location four hours after it has been recorded on the MDL."

International trade is an area where Smart Ledger technology could have tangible, practical applications.

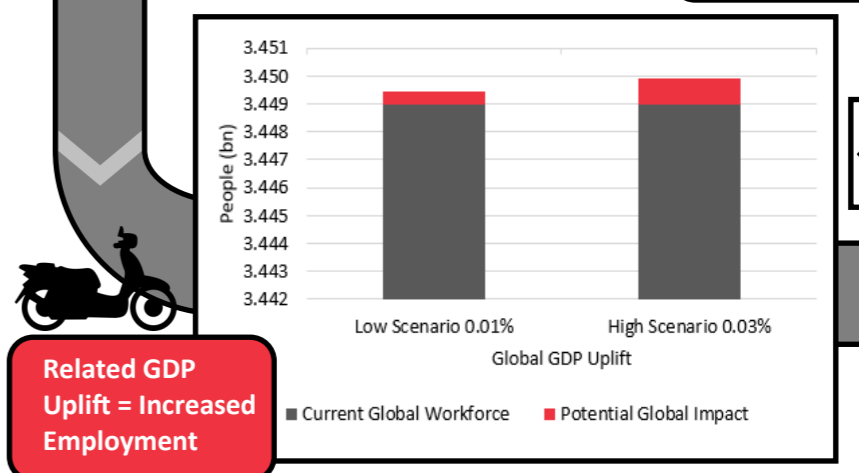


Model Used

Estimates



Trade Value Volatility Reduction = Increases in Option Value



Related GDP Uplift = Increased Employment

