13TH IMF STATISTICAL FORUM

MEASURING
CROSS-BORDER ECONOMIC
and **FINANCIAL LINKAGES**
in a Dynamic World

#StatsForum

China's Observation of Factoryless Goods Production and the Data Bridging Practices

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Content

- Different statistical principles
- Case study: Global manufacturing arrangements for Apple products
- New source data for BOP compilation

1. Different statistical principles

BPM6 VS IMTS2010

- **Ownership change VS Goods moving across border**

  BOP：ownership of the goods is transferred between residents and nonresidents regardless of the location of the goods

  Customs：the goods physically cross the border regardless of ownership of the goods

- **Time of recording**

  BOP：accounting time (on accrual basis)

  Customs：customs declaration

- **Valuation**

  BOP：contract price；F.O.B

  Customs：customs declaration price；C.I.F for imports

Reconciliation between BOP and IMTS

Table 10.2. Reconciliation between Merchandise Source Data and Total Goods on a Balance of Payments Basis

	Exports	Imports
Merchandise trade statistics as provided in source data		
Adjustments, as relevant[1]		
For example (with paragraph reference):		
+ *Goods procured in ports by carriers (10.17(d))*		
+ *Fish catch, minerals from the seabed and salvage sold from resident-operated vessels (10.17(e))*		
+ *Goods changing ownership entering / leaving territory illegally (10.17(i) / (j))*		
+/– *Goods lost or destroyed in transit (10.17(m))*		
+ *Goods acquired from other economies for processing abroad (10.65(b))*	*n.a.*	
+ *Goods sold abroad after processing in other economies (10.66(b))*		*n.a.*
+/– *Goods changing ownership in customs warehouses or other zones (10.25)*		
– *Migrants' personal effects (10.22(b))*		
– *Goods imported for construction projects by nonresident enterprises (10.22(d))*		
– *Goods for repair or storage without change of ownership (10.22(e))*		
– *Goods sent abroad or returned after processing without change of ownership (10.22(f))*		
– *Returned goods (10.22(i))*		
+/– *High-value capital goods, if delivery differs from change of ownership (10.28)*		
– *CIF/FOB adjustment (10.34)*	*n.a.*	
+ *Net exports of goods under merchanting (10.44(c))*		*n.a.*
+ *Nonmonetary gold (10.50)*		
= Total goods on a balance of payments basis		

[1]This list is not comprehensive, but indicative of commonly made adjustments. Some of the adjustments listed may be unnecessary because international merchandise trade statistics data for the economy may treat the item in the same way. For example, an adjustment for goods entering or leaving customs warehouses is not necessary if data are sourced from international merchandise trade on a general trade basis.

2. Case study: Global manufacturing arrangements for Apple products

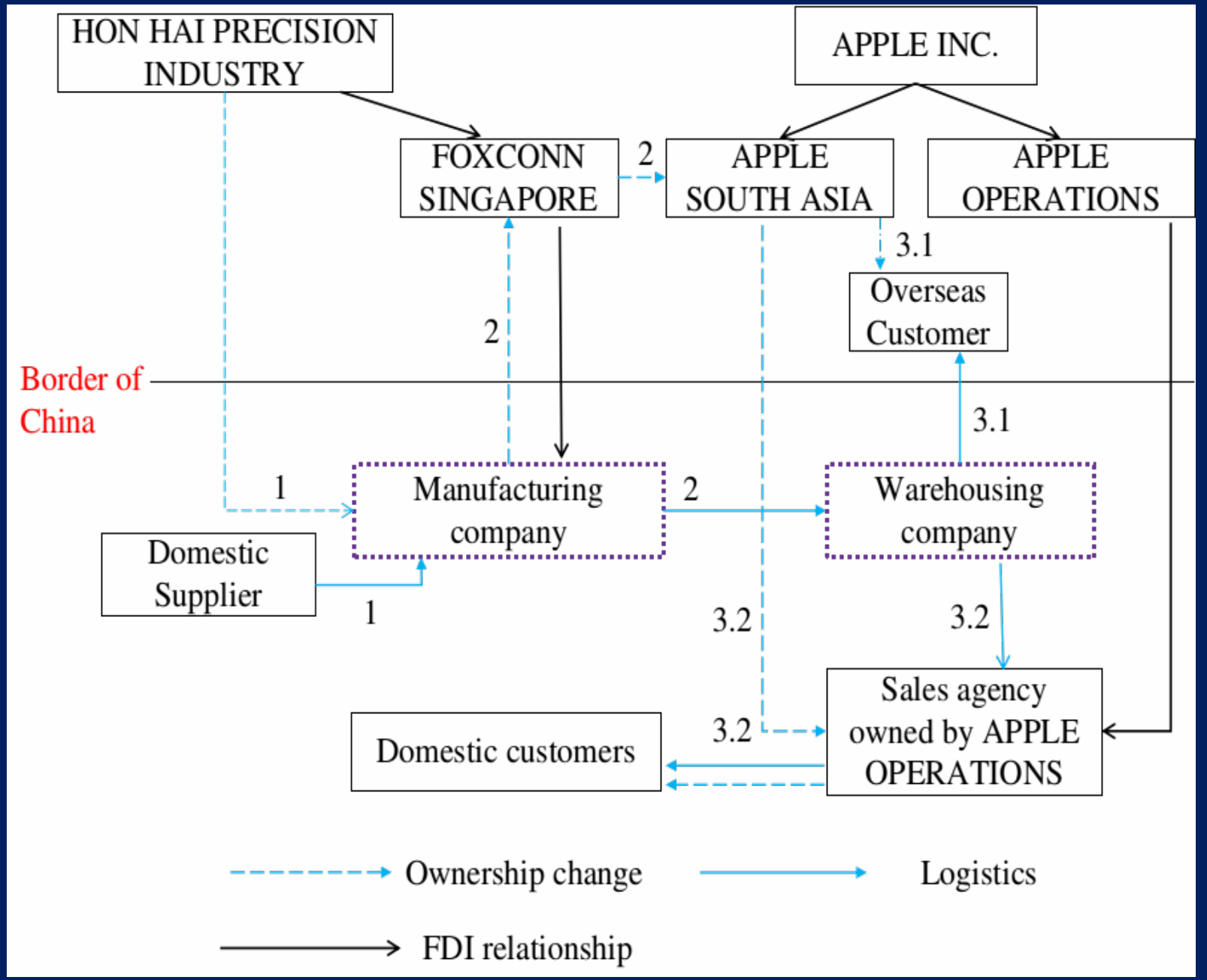
Stage 1: Acquisition of raw materials and manufacture in China

Stage 2: Sale of finished goods to Singapore with warehousing in China

Stage 3.1: Goods are shipped from China when customers in other countries buy them

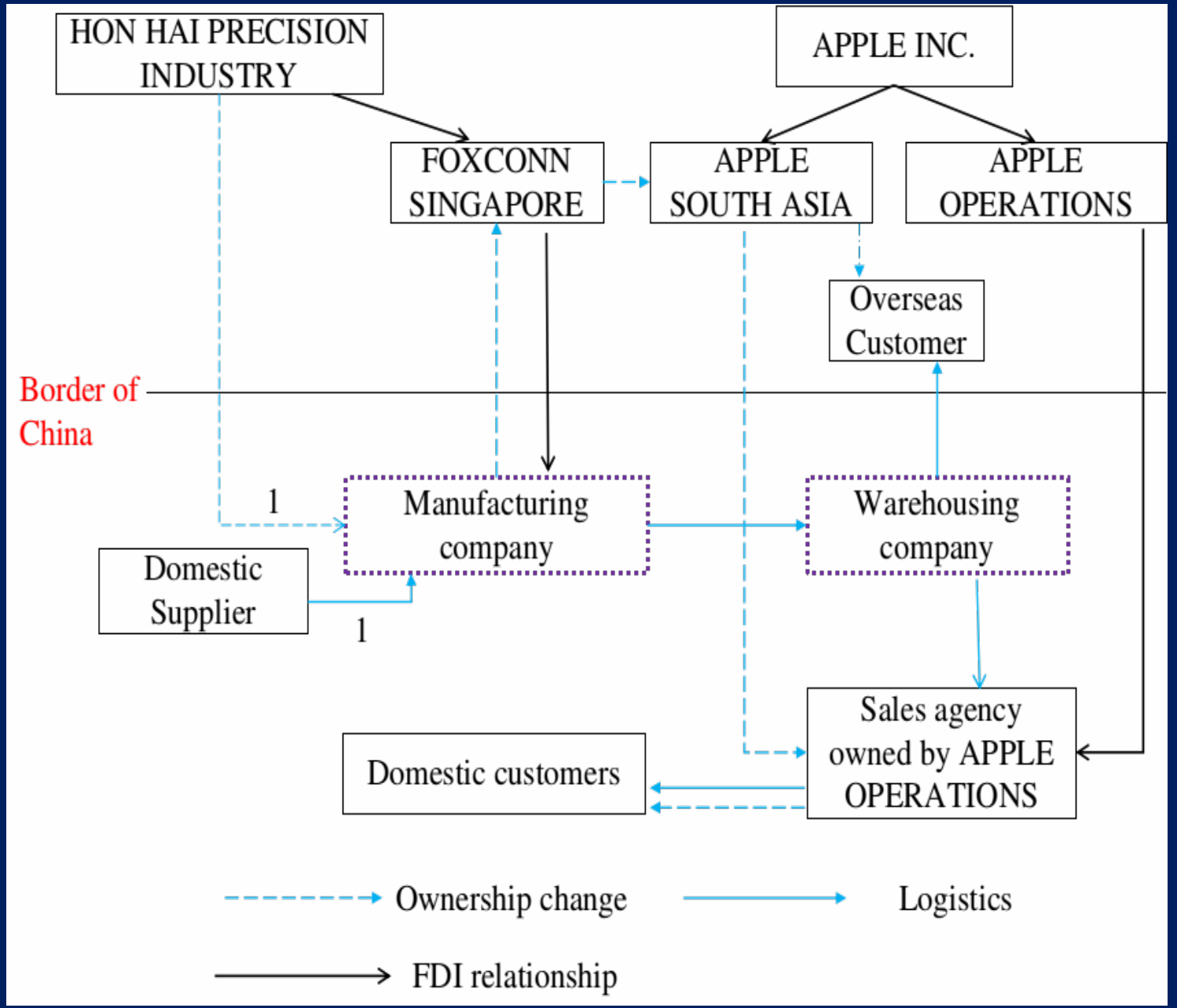
Stage 3.2: Goods are shipped within China when customers in China buy them

Raw material cost=50
Ex-factory price =60
Wholesale price =100



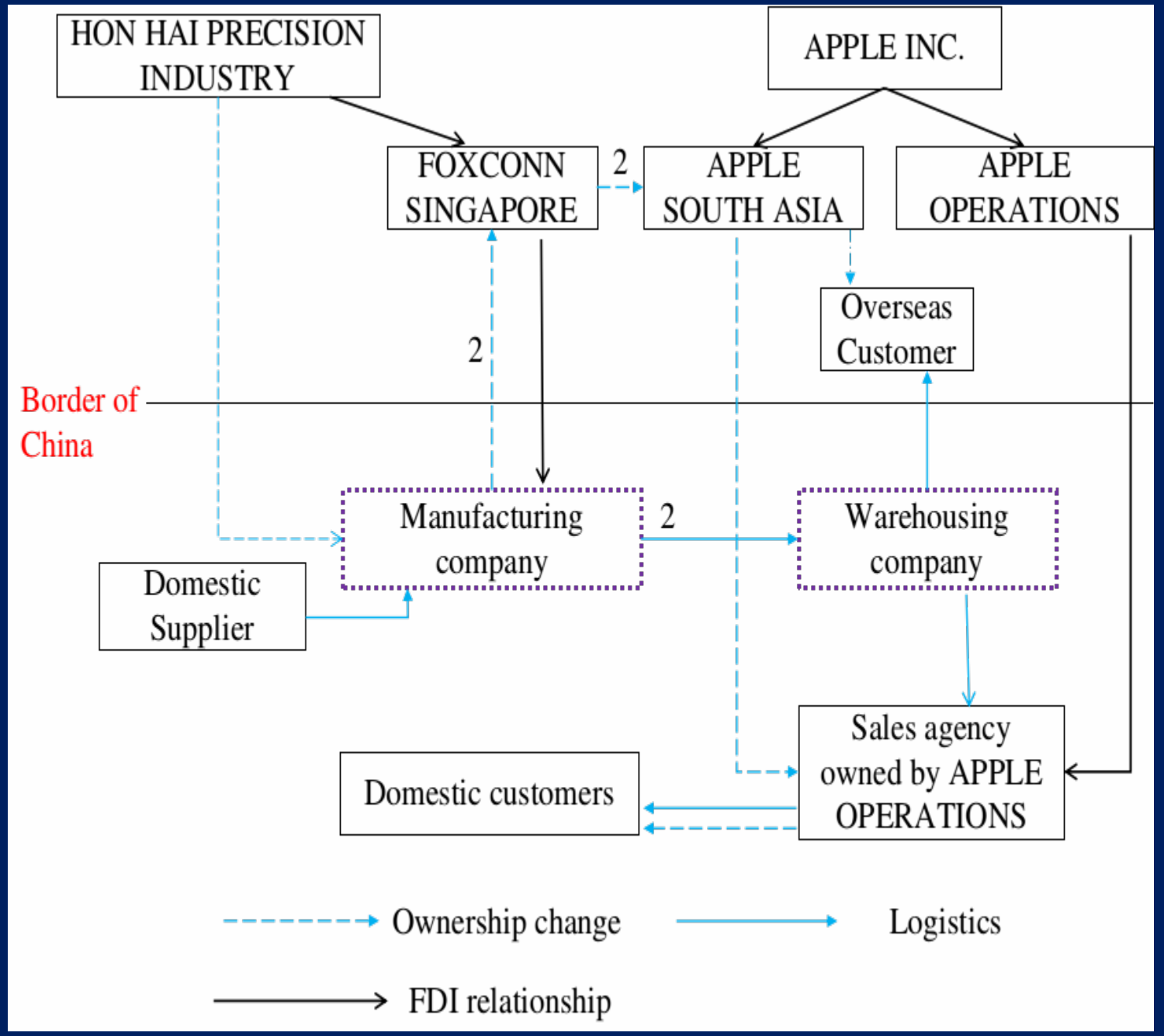
Stage 1: Acquisition of raw materials and manufacture in China

Raw material cost=50		Exports/ Credits	Imports/ Debits	Balance
Goods	BOP	0	50	-50
	Customs	0	0	0



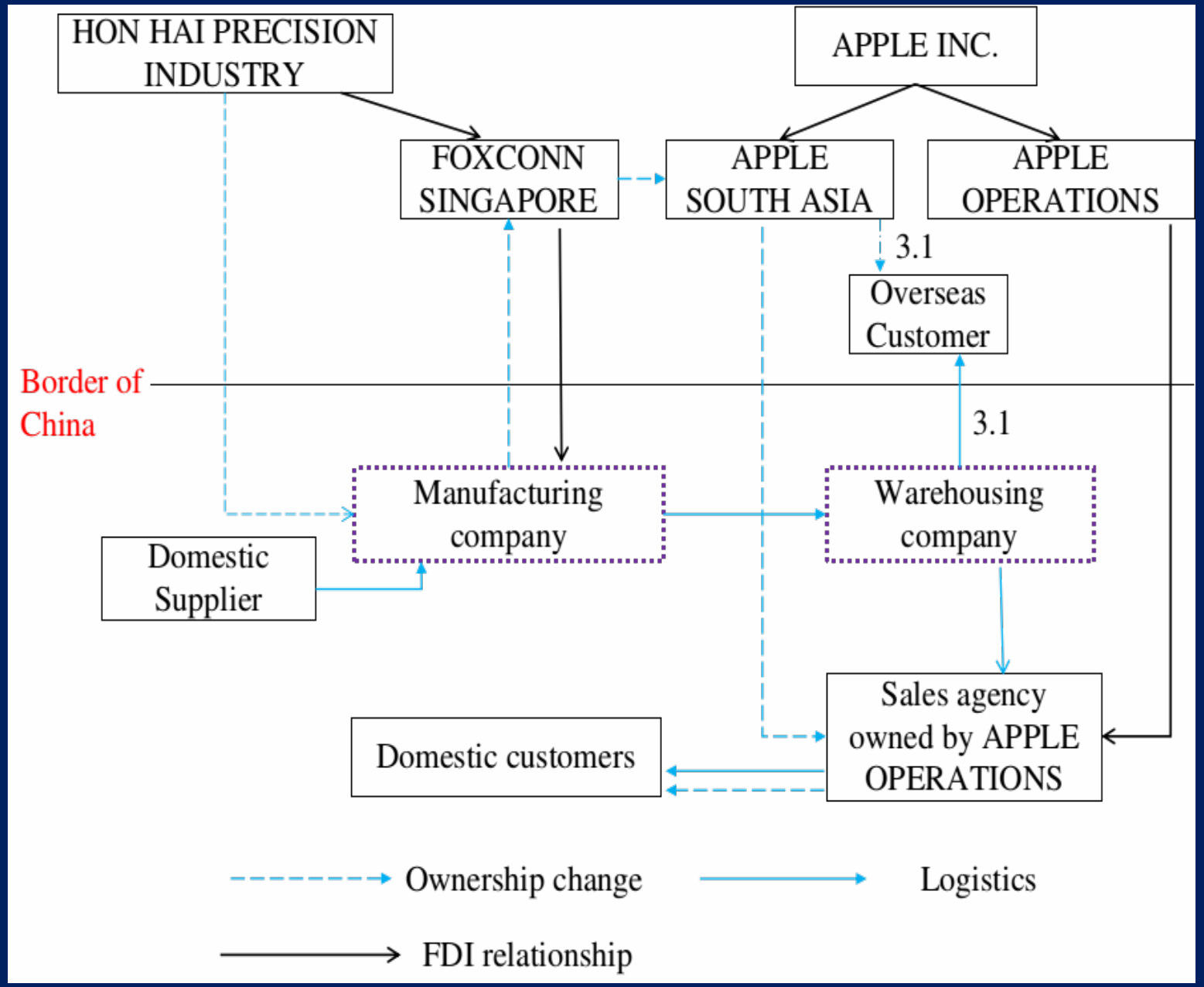
Stage 2: Sale of finished goods to Singapore with warehousing in China

Ex-factory price =60		Exports/ Credits	Imports/ Debits	Balance
Goods	BOP	60	0	60
	Customs	0	0	0



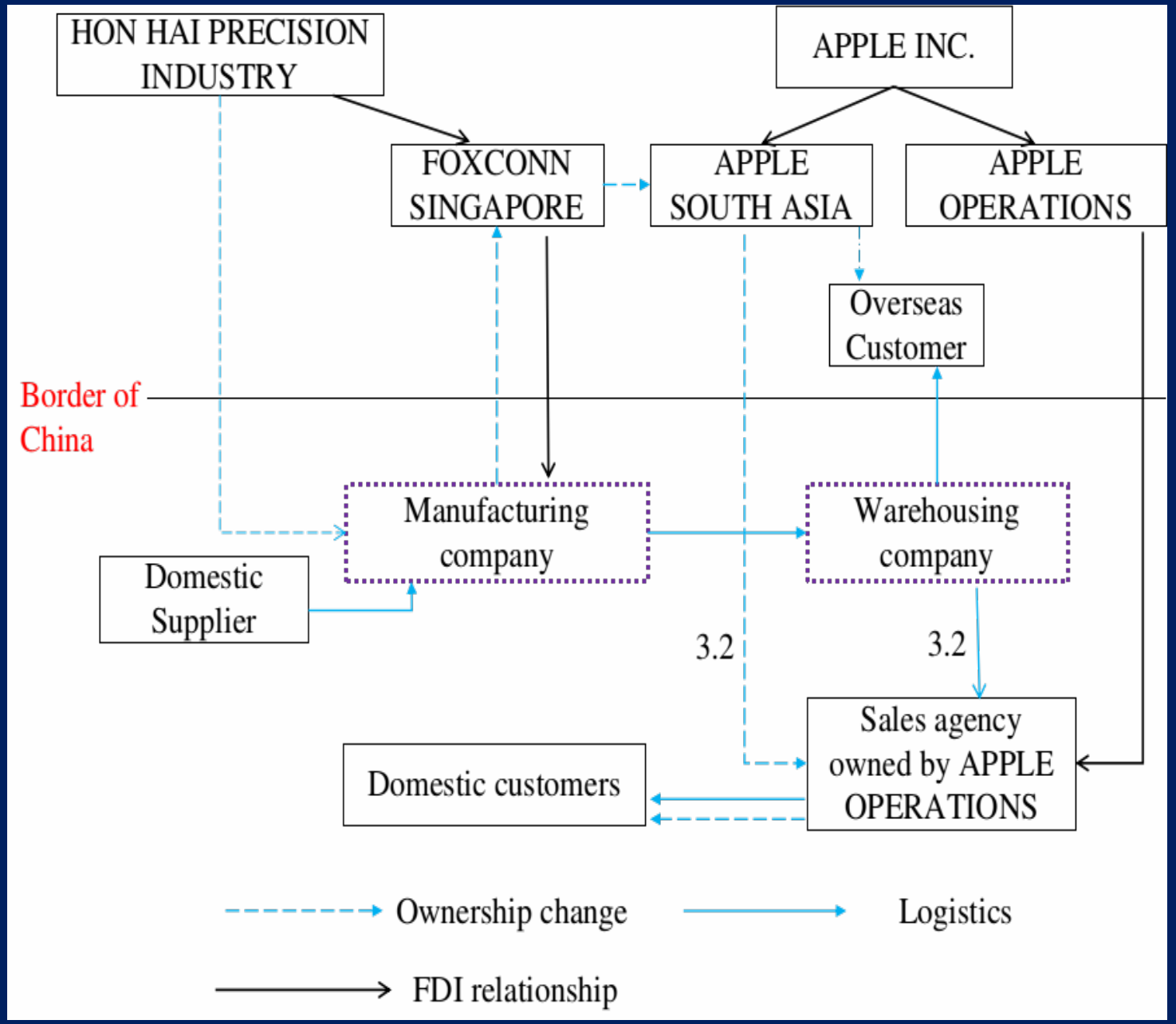
Stage 3.1: Goods are shipped from China when customers in other countries buy them

	Wholesale price =100	Exports/ Credits	Imports/ Debits	Balance
Goods	BOP	0	0	0
	Customs	100	0	100



Stage 3.2: Goods are shipped within China when customers in China buy them

Wholesale price =100		Exports/ Credits	Imports/ Debits	Balance
Goods	BOP	0	100	-100
	Customs	0	0	0

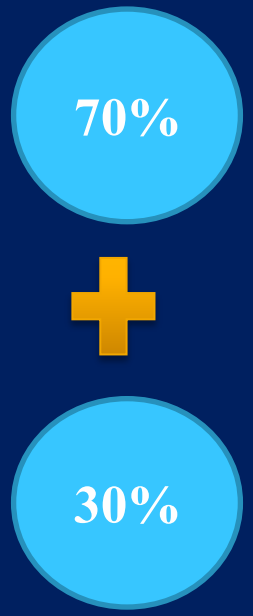


3. New source data for BOP compilation

Before 2022: adjustments based on customs data

- Adding goods under merchanting
- Deducting raw materials from other economies for processing and goods sent abroad after processing
- Converting imports from C.I.F to F.O.B price
- Case by case adjustment to align with ownership change principle

Since 2022: New source data



- More than 13,000 large exporters and importers report goods trade data to SAFE from their financial records on monthly basis

- Cross-border receipts and payments on goods trade via banks (obtained from the International Transactions Reporting System, ITRS)

Widened divergence

In 1 billion USD

	Item	2016	2017	2018	2019	2020	2021	2022	2023	2024
Customs	Balance	510	420	351	421	524	637	838	822	992
	Exports	2,098	2,263	2,487	2,500	2,590	3,316	3,544	3,379	3,577
	Imports	-1,588	-1,844	-2,136	-2,078	-2,066	-2,679	-2,707	-2,557	-2,585
BOP	Balance	489	476	380	393	511	563	665	594	768
	Exports	1,990	2,216	2,417	2,387	2,510	3,216	3,347	3,179	3,409
	Imports	-1,501	-1,740	-2,037	-1,994	-1,999	-2,653	-2,682	-2,585	-2,641
Gap	Balance	21	-56	-29	28	13	74	173	228	224
	Exports	108	47	69	113	80	100	198	200	168
	Imports	-87	-104	-98	-85	-67	-26	-25	29	56

Thank You !

Additional slides

Appendix:
Background on Data Source Challenges and Methodological Improvements in Compiling China's BOP Goods Account

Identifying the issues

By comparing ITRS and Customs declaration data, inconsistencies were found—some companies made overseas payments for imports without corresponding customs records.

Investigation, including with notable firms such as Apple's sales company, suggested this discrepancy related to FGP and other Global Manufacturing Arrangements (GMA).

Supply chain contacts helped clarify GMA structures, but resource limitations allowed contact with only a few companies, making case-by-case BOP adjustments incomplete.

Methodological improvements

To improve, new source data based on enterprises' financial records, aligned with BPM principles (ownership transfer under accrual accounting, double-entry bookkeeping), was introduced.

Financial records provide better accuracy, but collecting them poses challenges.

Leveraging full access to ITRS and Customs databases, roughly 13,000 large companies (accounting for ~70% of total trade volume) were identified and required by law to report monthly export and trade credit aggregated data to SAFE, achieving 100% response.

Data collected omits country and commodity breakdowns to reduce reporting burden, sufficient for BOP goods account compilation but unable to quantify GMA entities accurately. Thus, this approach captures ownership change well but lacks detailed GMA insights.

ITRS Usage for Small Traders and Future Plans

For the remaining 30% smaller traders, ITRS cash flow data is used.

Missing trade risk is low as unreported overseas payments or receipts are rare. Trade credit turnover typically is under three months, limiting timing issues.

Recently, country and some product breakdowns were added to reporting forms, but this significantly increased burden and complaints, with data quality remaining a challenge.

Preparations for bilateral comparison require more time.

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