



Findings from the case studies of innovative value chain financing in China

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Content

- **Potato Value Chain Transformation and Value Chain Financing**
- **Value Chain Financing and Small Agribusiness Development in Dairy Industry:
Financial Instruments Choice in Deferent Stage of Life Cycle of Enterprise**
- **Contact Farming and Raw Milk Value Chain Financing**
- **Integrating Supply Chain and The Innovation of Value Chain Finance: Interlinked
Transactions between Shrimp Producer and Aquatic Conglomerate**
- **The Wholesale Market Platform Building as a Facilitator in Value Chain Financing
Innovation: Taking “Xiashan Fishery Loan” As An Example**



About every case, I will talk...

- **What we learn for Case study on value chain financing practice?**

通过案例研究，我们了解什么？发现了什么？

- **What does the VCF works? Actors? Who get benefit? How to control risks?**

运作模式、主体、受益方

- **Relationship between agricultural transformation and value chain finance development and innovation**

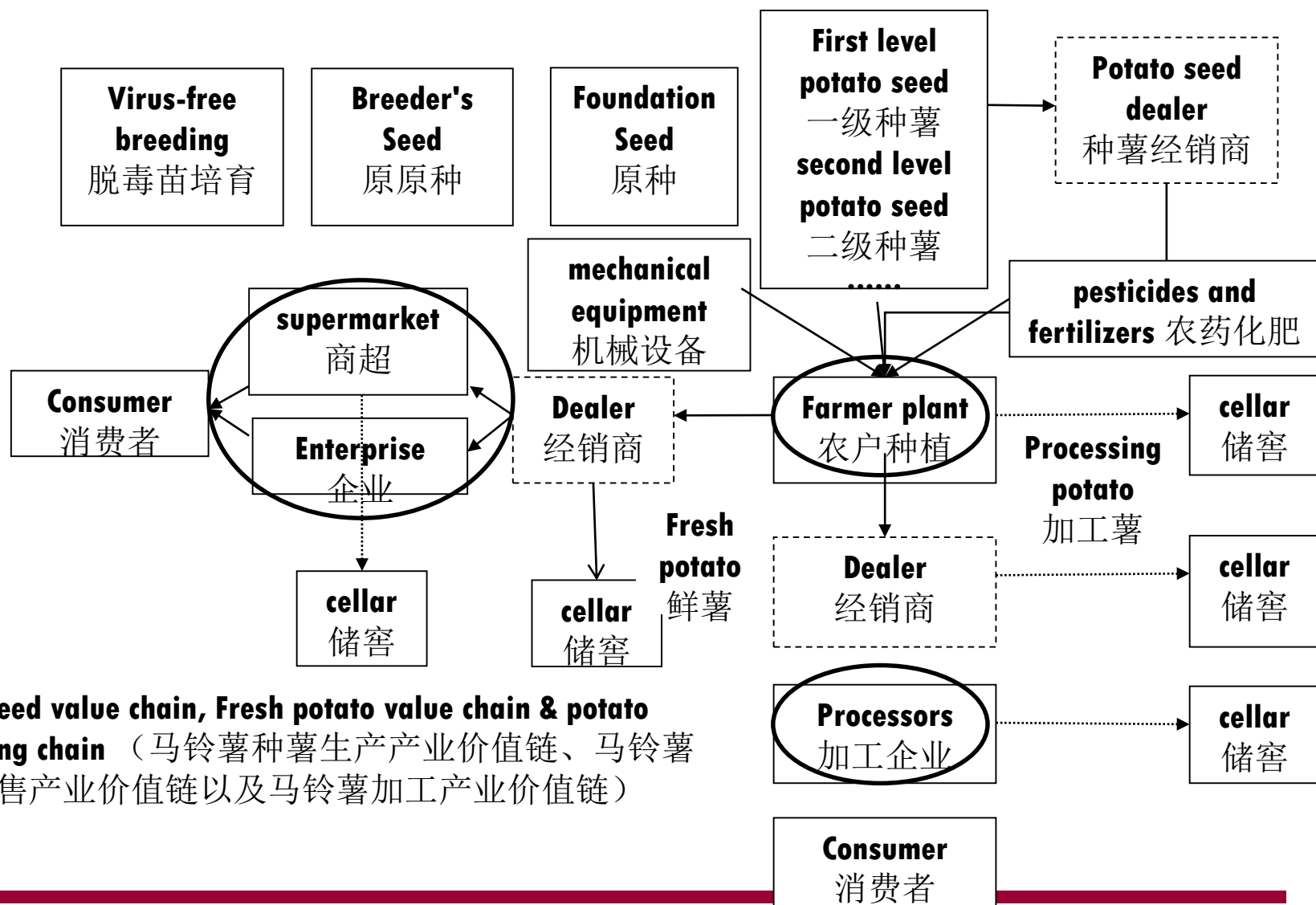
农业价值链金融创新与农业升级转型

- **The implications for smallholders? Perspectives?**

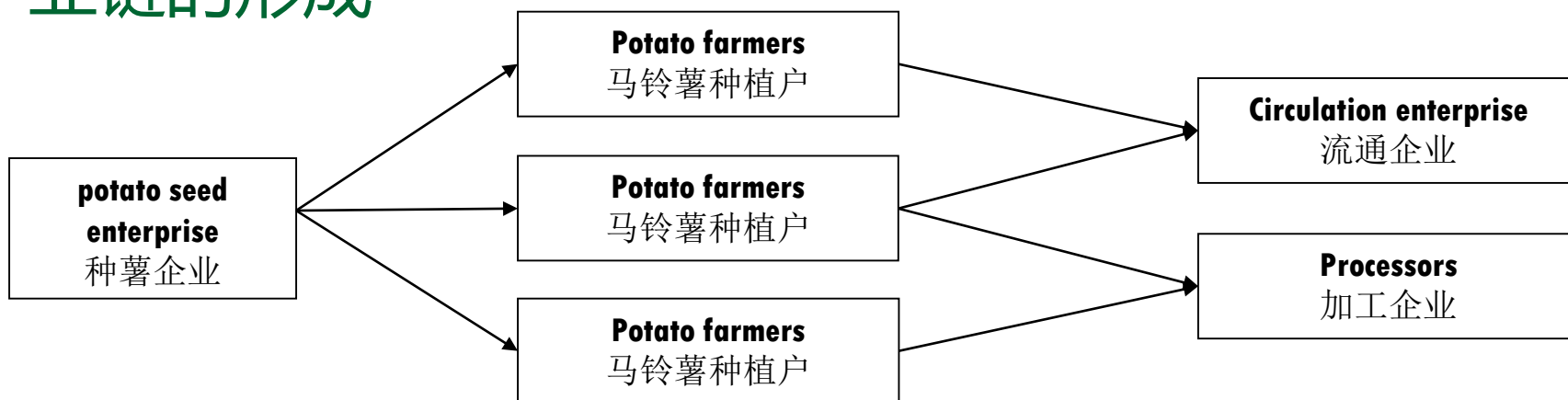
对小农户的含义？展望？



I. Potato Value Chain Transformation and Value Chain Financing



New industrial organization of potato value chain 新型产业链的形成



■The 1+N+1 organization form is more and more obvious (1+N+1这种产业链组织形式越来越明显)

● “1” replace the core enterprise in the potato value chain, include the potato seed enterprise, Circulation enterprise and Processing enterprise. “N” replace the Potato farmers (“1”是指产业链上的核心企业。比如上游的种薯企业和下游的鲜薯流通企业以及商品薯加工企业。而“N”是指整个产业链中马铃薯种植户)

● ‘1’ ’change: bigger and bigger (‘1’的改变: 核心企业越来越强)

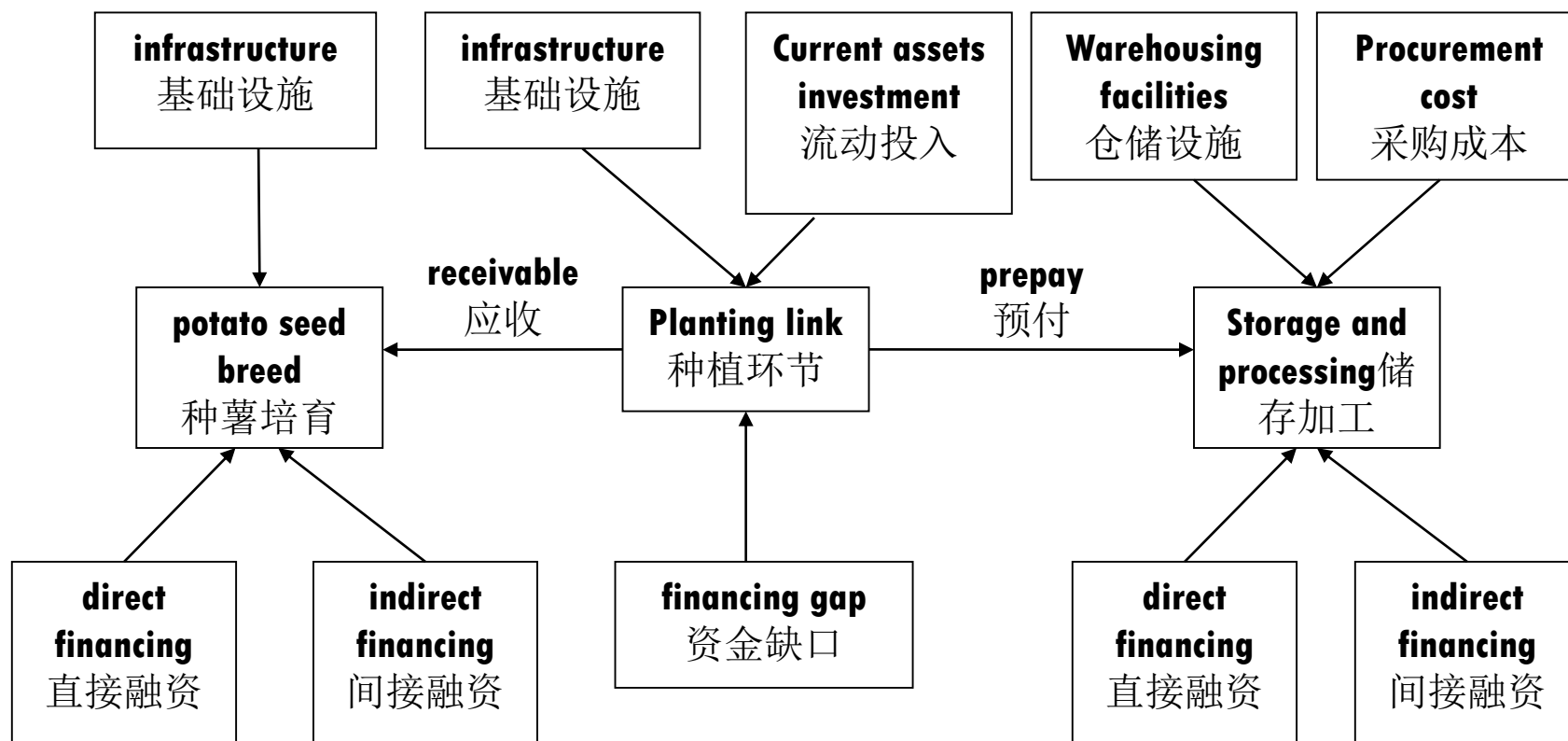
● ‘N’ ’change: New Type of Agricultural Management Main Body (‘N’的改变: 新型农业经营主体)

●The new form of industrial organization : Order agriculture (新的产业组织形态——订单农业发展)



The funding needs and satisfaction mode in Potato value chain

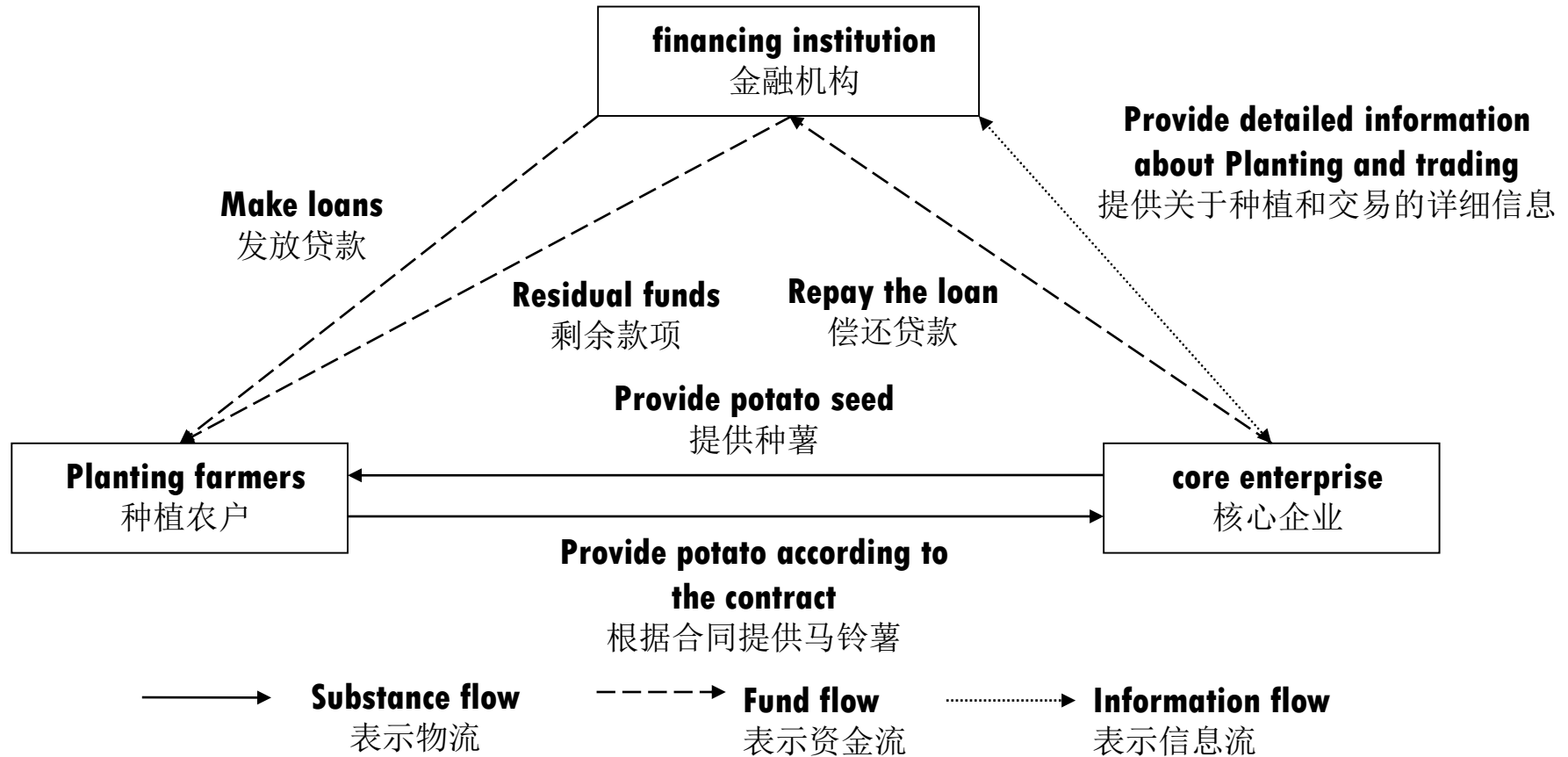
(马铃薯产业资金需求与满足渠道)



Who needs the fund most? ——the famers (农民资金最短缺)



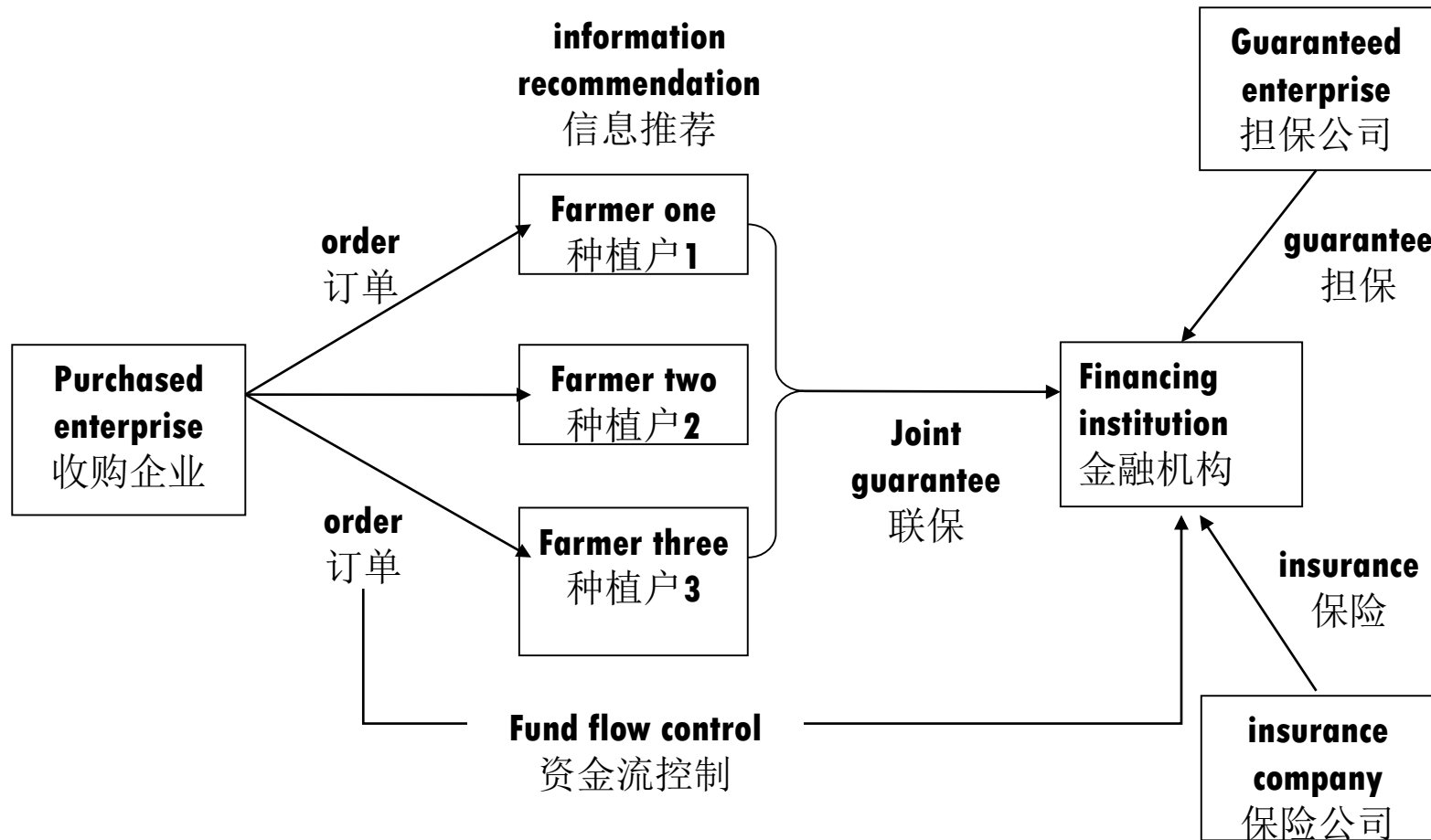
Value chain finance based on Agriculture Order(基于订单农业的供应链融资)



Here the core enterprise both provide potato seed and purchase potato form famers based on the Agriculture Order.(这里核心企业既原种供应商也是土豆收购商)



“Potato loan” by China bank (中国银行薯业贷)



Loan interest rate 贷款利率	7%
Loan length 贷款期限	9 months
Loan purpose 贷款用途	Potato planting inputs. 马铃薯种植投入
Audit Contents 审核内容	Planting scale, plant level, agricultural machinery, cellaring scale, order contract. 种植规模、种植水平、农机设备、储窖规模、订货协议
Other requirements 贷款其他要求	Assurers buy personal comprehensive insurance in B.O.C. 承保人购买中银保险人身综合险
Loan form 贷款形式	Credit insurance, joint guarantee loan, guaranteed loans. 信用贷款、联保贷款、担保公司担保贷款
Mode of repayment 还款方式	A quarterly payment, pay for principal when it expires. 按季还息，到期一次还本
Loan authority 贷款权限	Pre-loan investigation by potato Professional bank, Provincial Branch's examination, approval and grant. 马铃薯专业行（支行）贷前调查，省分行审批发放
Post-lending management 贷后管理	Field investigation and telephone inquire, following potato planting. 实地调查或电话询问，跟踪马铃薯种植情况
Marketing mode 营销方式	Recommended to farmers by potato enterprise and government. 马铃薯相关企业或各级政府向农户宣传推荐



Discussion（讨论） : why there is no “potato loan” before?（为

什么之前中国银行没有开展“薯业贷”？） **There are some requirement.**（薯业贷这种供应链融资模式有一定的前提条件。）

● **‘1’ 'change: bigger and bigger**（‘1’的改变：核心企业越来越强）核心企业有较强的销售和加工能力，还需要其有足够的仓储能力，能够保证农户的马铃薯得以销售并获取稳定的收入以偿还贷款

● **‘N’ 'change: New Type of Agricultural Management Main Body**（‘N’的改变：新型农业经营主体）农户进行规模化的种植，这样一是可以降低金融机构的交易成本，二是只有规模化的农户才能和核心企业建立稳定交易关系。

● **The new form of industrial organization : Order agriculture**（新的产业组织形态——订单农业发展）**1+N**的模式必须产生，即农户和核心企业产生稳定的交易关系，银行通过这种稳定的交易关系来控制信息流和资金流以控制信贷风险。

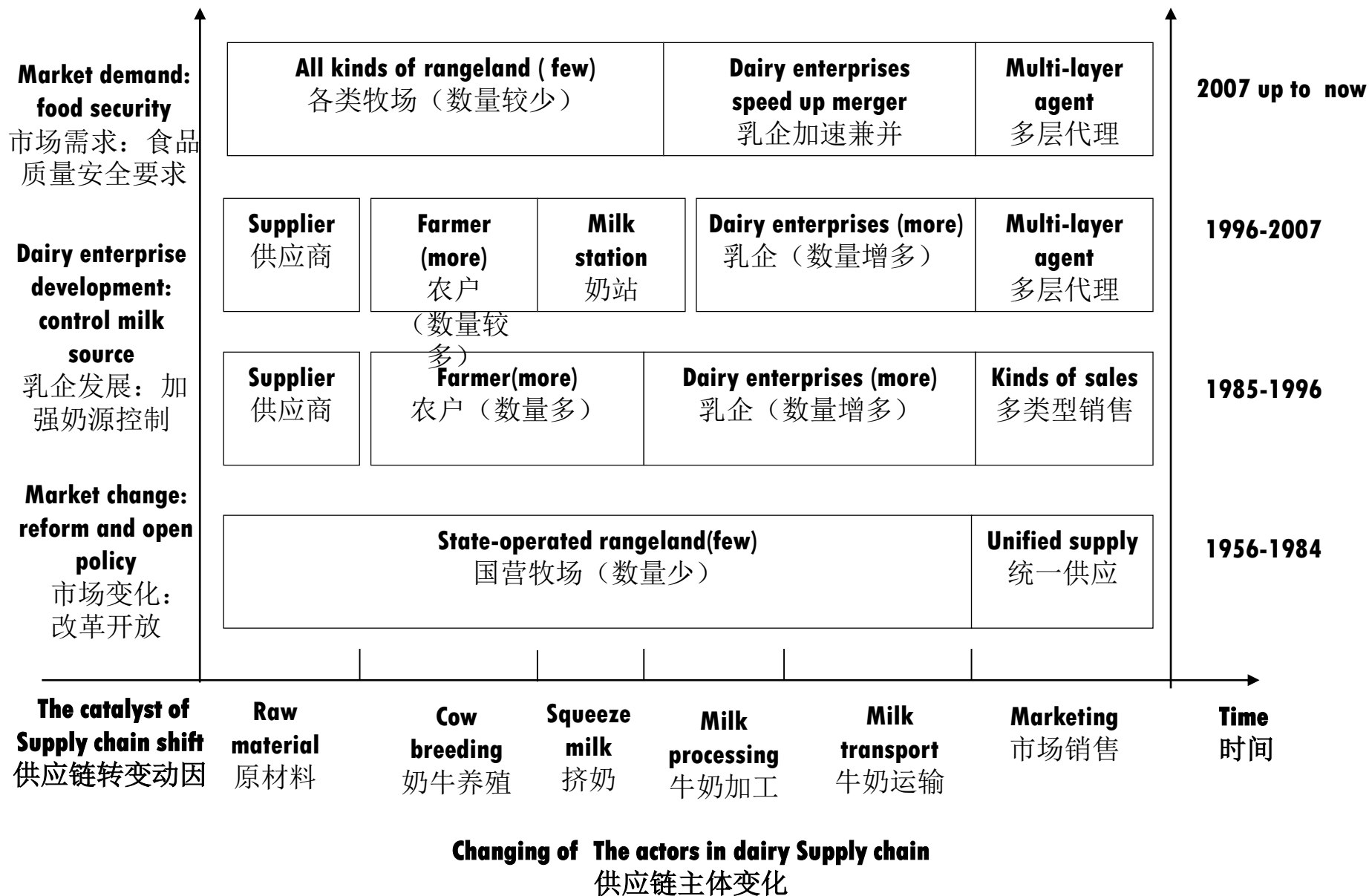
II. Value Chain Financing and Small Agribusiness Development in Dairy Industry: Financial Instruments Choice in Deferent Stage of Life Cycle of Enterprise

- **Introduction: Dairy Value Chain transformation in Recent Years in China**
- **Financial Instruments Choice in Deferent Stage of Life Cycle of Enterprise**



Introduction

- **Food safety and dairy production mode transformation** 食品安全与乳业生产方式转型
- **Change of dairy value chain: Scale -- Dispersed -- Scale**（奶业价值链的变化：规模—分散—规模）
- **Not much problem in dairy Processing, circulation**（在乳品加工企业主导下的乳制品加工、流通与销售问题都不大）
- **The most important problem in dairy value chain is the milk source base**(目前我国奶业发展真正限制之处在于的奶源基地建设)



- **Dairy producing tend to moderate size and specialization**（原奶供应倾向于适度规模化和专业化）
- **moderate size and specialization need a lot of investment, like Cow , Machine, pasture and Forage**（为了实现养殖的规模化与现代化，需要投资建设大型专业化牧场，购置奶牛养殖环节的奶牛、养殖设施、设备、饲草料等资源）
- **3 ways to moderate size and specialization**（三条路径）
 - **The downstream dairy enterprises directly doing base construction**（价值链下游的乳企向上游发展直接进行基地建设）
 - **Technology oriented enterprises that grasping cow breeding technology**（掌握奶牛养殖的技术型企业）
 - **Farmers cooperatives or large-scale family Ranch**（农户组织成的养牛合作社或者从小规模发展成大规模的牧场）

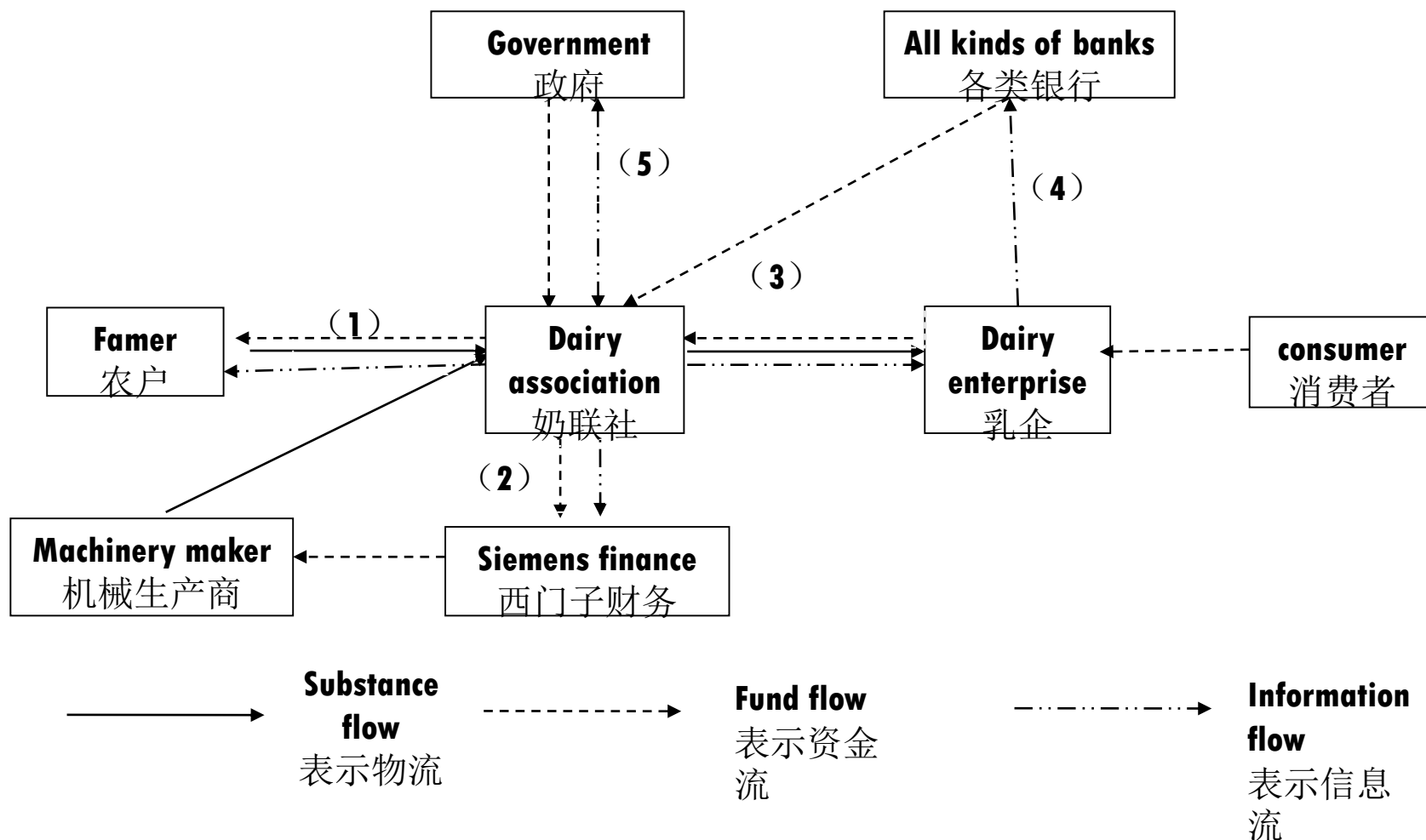


Life Cycle of Milk Association (in fact, an Agricultural SME)

- **Nailianshe Co. (Milk Association)——cooperation of Technology oriented enterprises, famers & The downstream dairy enterprises(奶联社——三种路径的结合)**
 - **2007年， a technology oriented enterprise knowing how to raise cows.**
 - **It built Milk Association and attracted dairy farmers into cooperatives(公司创建了适合中国国情的奶牛养殖合作化产业模式——“奶联社”，即采取“奶农自愿入社、不参与经营、获取年稳定回报、到期自愿退社、退社领取入社奶牛金”的模式，以吸引奶农入社)**
 - **Now it has 25 Thousands of head of Ranchs(5 own and 20 cooperated with yili) within 20000 cows ; has 30 Corn silage and forage harvesters; and Harvests about 300000 tons of Silage every year.(目前投产标准千头奶牛场25座(5个自有牧场，20个与伊利合作牧场)。存栏2000头牧场2座，存栏奶牛近2万头。单产7.5吨。拥有德国进口克拉斯青贮玉米与饲草料收割机30多台，成为中国拥有大型青贮玉米收割机数量最多的企业，每年订单青贮玉米10万亩，收获青贮30多万吨)**



The financing way of large scale farming by Milk Association 融资方式



(1) Cow rented (“租牛”) (2) Financing lease (融资租赁) (3) Cooperation in the construction of pasture (合建牧场BOT) (4) Factoring (保理信贷) (5) international loan (国际贷款)

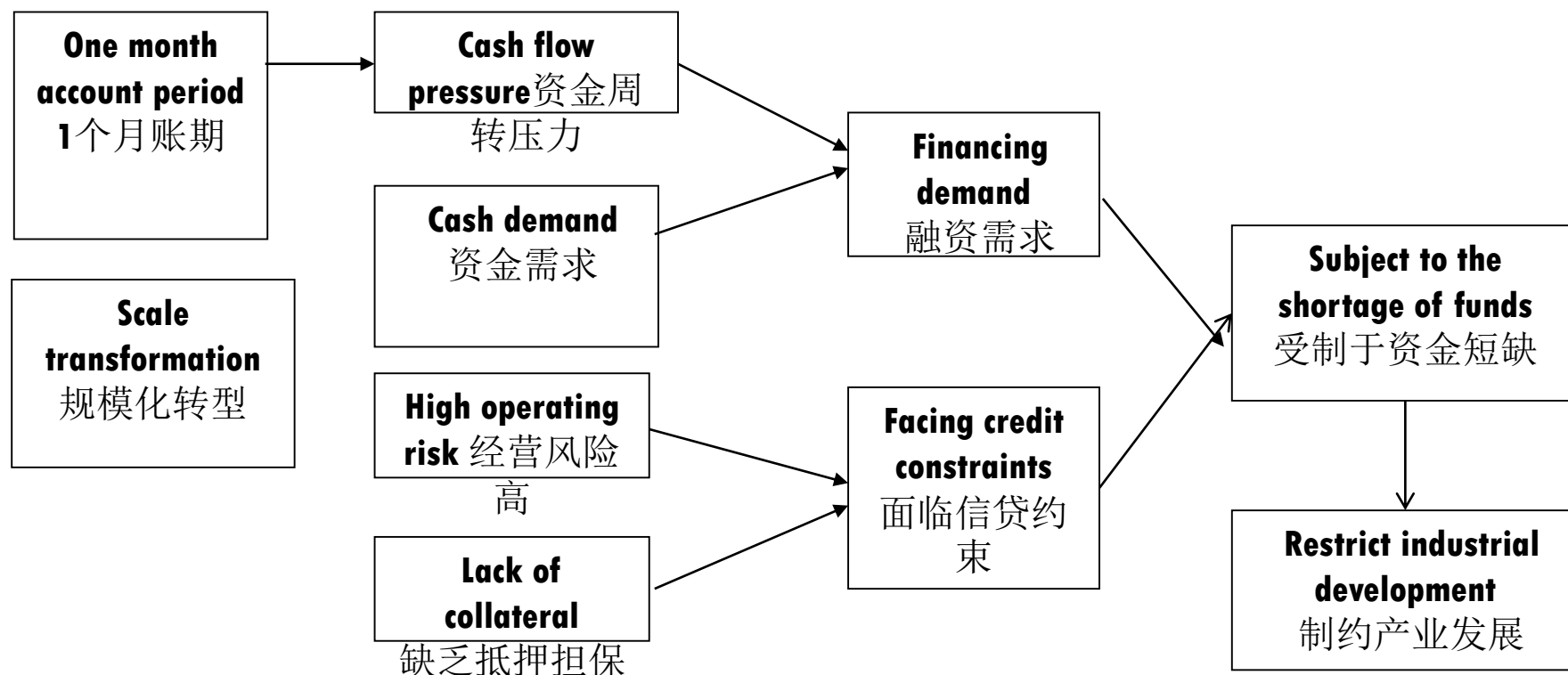


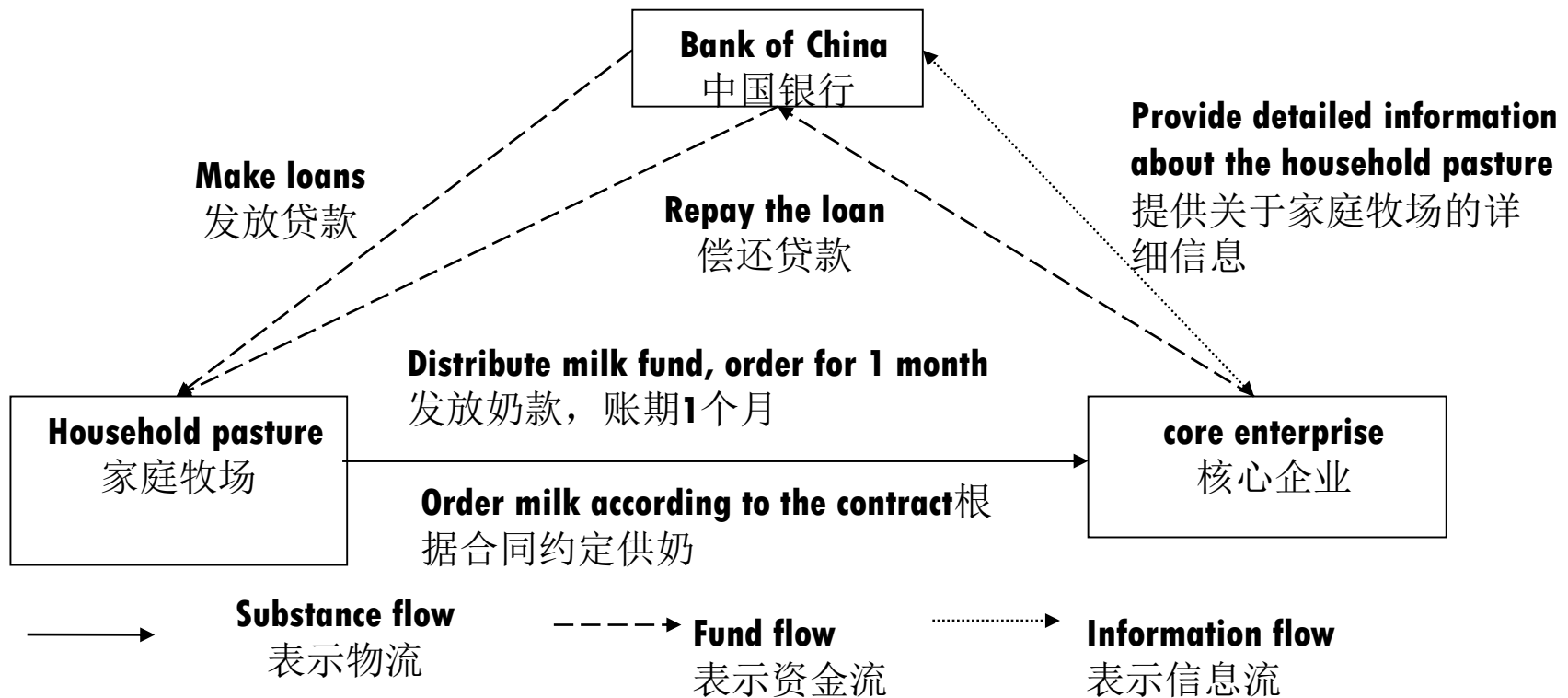
- (1) **Cow rented** (“租牛”)
 - **The cow shares & Installment payment** (“奶牛入股、分期付款”)、 **materially Financing lease, thus few money gain a lot of cow** (实质为融资租赁的形式, 以较少的资金解决了奶牛购买的问题)
- (2) **Financing lease** (融资租赁)
 - **few money gain using right of machine** (少量的钱获得设备使用权)
- **Cooperation in the construction of pasture** (合建牧场BOT)
 - **Cooperated with Downstream processing enterprises, build pasture** (为了解决牧场建设中存在的资金问题以及自身的融资难问题, 奶联社向下游的大企业展开融资, 通过稳定的产品供应吸引企业的资金支持)
- **international loan that granted by government** (国际政府担保贷款)
 - **Large amount, low cost, long term loan from Europe** (奶联社还由价值链的监管方——当地政府担保, 从欧洲获得了一笔金额大、成本低、期限长的融资)

- **Cooperative family ranch stage**（合作家庭牧场阶段）
 - **The problem of Factory farming: Labor supervision , high Risk and pollution**（工厂化养殖模式存在一些缺陷，奶牛不同于其它机器，它本身就一个生命体，因此在养殖过程中，需要投入更多的人力；大规模养殖风险高且污染大）
- **The right way is to let the farmer captive the cow and form cooperatives**（正确的道路是让奶农养殖并组成合作社）
 - **Milk cooperative + farmers farming stage**（奶联社搭台+农民养殖）
 - **The cooperatives Provide services for farmers**(为农户提供多种服务)
- **How to solve the investment problem? "Government support + dairy farmers self financing + bank loans + milk cooperative investment" approach**“政府扶持资金+奶农自筹资金+牧场贷款+奶联社投入资金”的方式
- **200 Cooperative family ranch** (组织新建和改造存栏量**120**头泌乳牛的现代化家庭牧场**200**个)

III. Contact Farming and Raw Milk Value Chain Financing: Bank Credit Service for Family ranch(家庭牧场融资案例 – 乳业通宝)

The money demand for the family ranch (家庭牧场融资需求)





● **Household pasture apply for the loan from the bank and core enterprise when it needs money** (当核心企业的上游原奶供应主体由于资金短缺希望获取中国银行贷款时，他们先向核心企业的有关部门提出申请)

● **Core enterprise provide some information about the household pasture to the bank.** (核心企业所做的工作是向银行出具自己经过调查所形成的关于家庭牧场资产状况、牛奶产量情况、风险控制情况的证明)

● **Bank calculate the loan amount based on the monthly milk yield** (银行是以家庭牧场每个月所能生产的牛奶量为基础来决定对家庭牧场的贷款额度)

● **Household pasture get loan and the loan will paid back by Deducted from the milk Sales revenue** (资金的封闭运行与银行对资金流的控制)

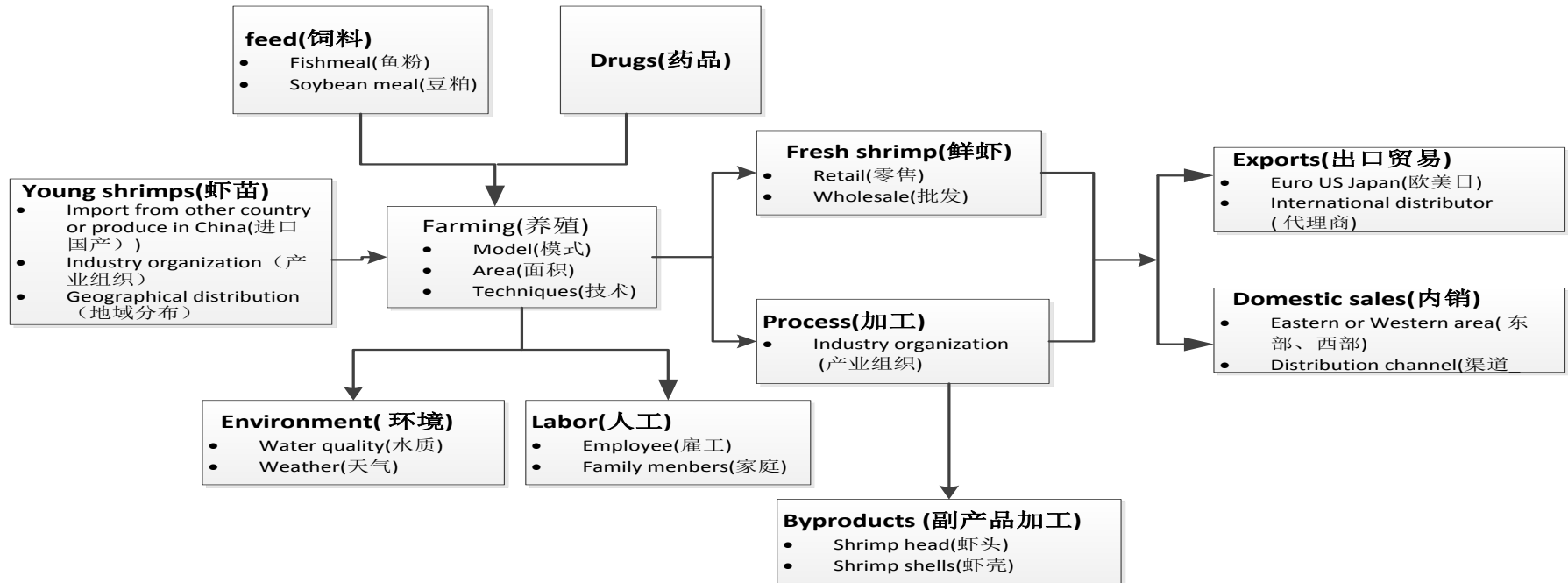
IV. Integrating Supply Chain and The Innovation of Value Chain Finance: Interlinked Transactions between Shrimp Producer and Aquatic Conglomerate

- Introduction
- Shrimp Producers Getting In-kind Finance from Feed Company



Introduction

Shrimp industry chain(对虾产业链)



Chinese Shrimp Industry has been formed a relative complete industry: farming process is the core part in this industry; upstream inputs include young shrimp, feed, pharmaceuticals; downstream processing and marketing chain is mainly involved in the processing and sale of processed shrimp and shrimp .

(我国的对虾产业已经形成了较为完整的产业链形态：以养殖环节为中心，上游投入品环节主要包含虾苗、饲料、药品等，下游加工及销售环节主要涉及了鲜虾及加工对虾的加工及销售。



Trade credit in input of Shrimp culture

■ Shrimp farming model: Intensive monoculture in lined 'high-level' ponds

(对虾养殖方式：高位池精养模式)

■ inputs(对虾养殖投入)

- **Farming costs: feed, seed, broodstock, medicines, labor, energy, pond rents\expansion\maintenance.**

Feeds cost takes 70% in total inputs.(在对虾养殖中，养殖成本主要由塘租、改、扩建池塘等固定成本以及种苗、饲料、虾药等成本，其中饲料投入占据了整个养殖环节成本的70%。)

■ Characteristics(对虾养殖特点)

- **Systematic risk: High risk, High return, seasonality, non-controllability, high disparity**(对虾养殖具有高风险、高利润、季节性强、不可控性强、水平差异大的特点。这些特点主要反映在上述的风险分类中是系统性的风险，主要表现在对虾产量的不可控性和对虾价格的不稳定性)

■ Demands of capital(资金的需求)

- **The farming model causes high farming costs; shrimp price is not stable because of downstream competition. This will cause farmers be lack of capital**(对虾养殖方式的变化催生了高养殖成本，同时对虾销售还面临着市场的波动，致使传统养殖户不能够仅依靠自身的资本积累进行扩大再生产，还要依赖于外部融资来解决资金短缺问题。)



Trade credit in input of Shrimp culture

Two external financing sources: bank credit(financial institutes) or from trade credit(feed crediti)(对于养殖户而言，外部资金源有两类，一类是通过金融机构贷款获得，另一类是通过赊购生产资料，利用传统的商业信用来间接获得。)

Trade credit vs bank credit: information VS mortgages(生产资料赊销 VS 金融机构借款：信息优势&多样抵押品)

	bank credit(金融机构借款)	Trade credit(生产资料赊销)
Finance provider (提供主体)	Banks and small-loan company (银行、贷款公司)	Young shrimp frim\feed agency (虾苗场、经销商/厂商)
Items(提供内容)	Loan(抵押贷款、资金)	Young shrimp\feed\drugs (虾苗、饲料、虾药等生产资料)
Indirect cost (中间成本)	Indirect cost\Time cost (灰色成本、时间成本高)	Nearly non(几乎没有)
Industry information (行业信息)	Scarcely familiar(陌生)	Familiar(熟悉)
Borrower\ mortgagor information (养殖户信息)	Scarcely familiar(陌生)	familiar (利用社会资本，熟悉养殖户信息)
Mortgages(抵押品)	Few; Personal property (单一：个人财产)	Many;ponds\shrimp\personal property (多样：虾塘、对虾及个人财产)
Time cost(提供时间)	Long and easy to miss farming time (时间长，容易错过养殖时间)	Short and quick(时间短，不影响生产)

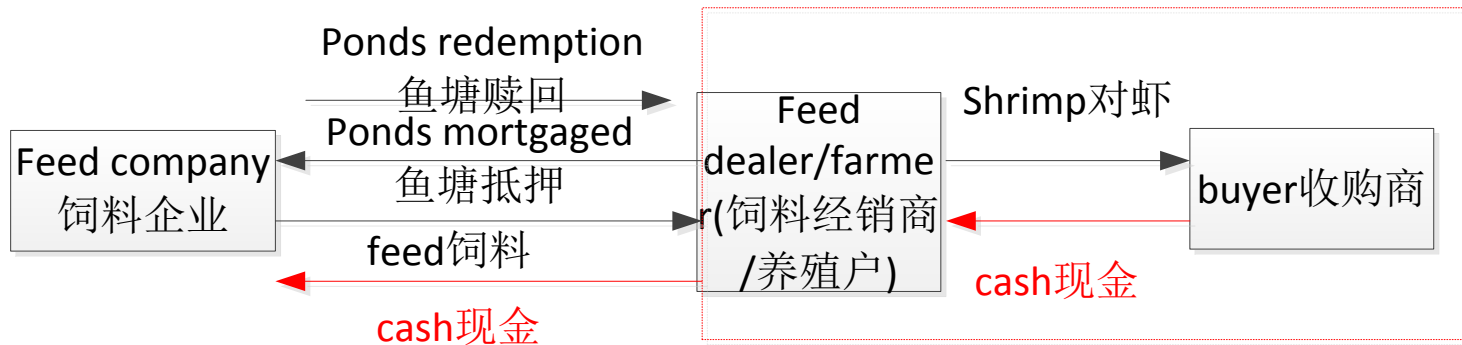


Trade credit in inputs of Shrimp culture

- Ways of feed company and feed agency providing trade credit(1):use shrimp ponds as mortgages;(2)trade credit without mortgages

(饲料企业及饲料经销商在提供赊销时，具体的方式主要有(1)养殖户/经销商利用鱼塘等生产资料进行抵押；(2)饲料经销商无抵押赊销。这种赊销方式下，企业在对经销商进行筛选及风险控制时，主要采用的是信用风险控制，通常更多的会依赖于抵押品来降低坏账后的损失。)

■ trade credit with mortgages(抵押品赊销)



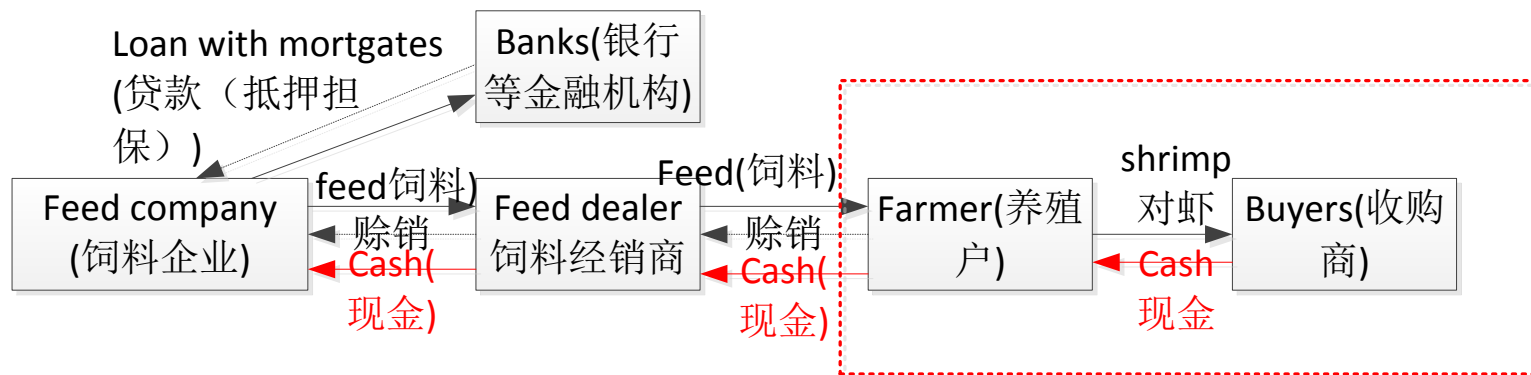
- Medium or small feed company: medium or small scale farmers;big scale farmers use its ponds as mortgages to get capital from big feed company(中小型饲料厂对接中小型规模的养殖户，规模较大的养殖户可以将自有虾塘抵押给饲料厂进行饲料赊销，待养殖户回款后再偿还给饲料厂。)

Parergon (Farmer also dealer)(养殖户兼业经销商)



Trade credit in inputs of Shrimp culture (continue)

■ trade credit without mortgages(无抵押品赊销)

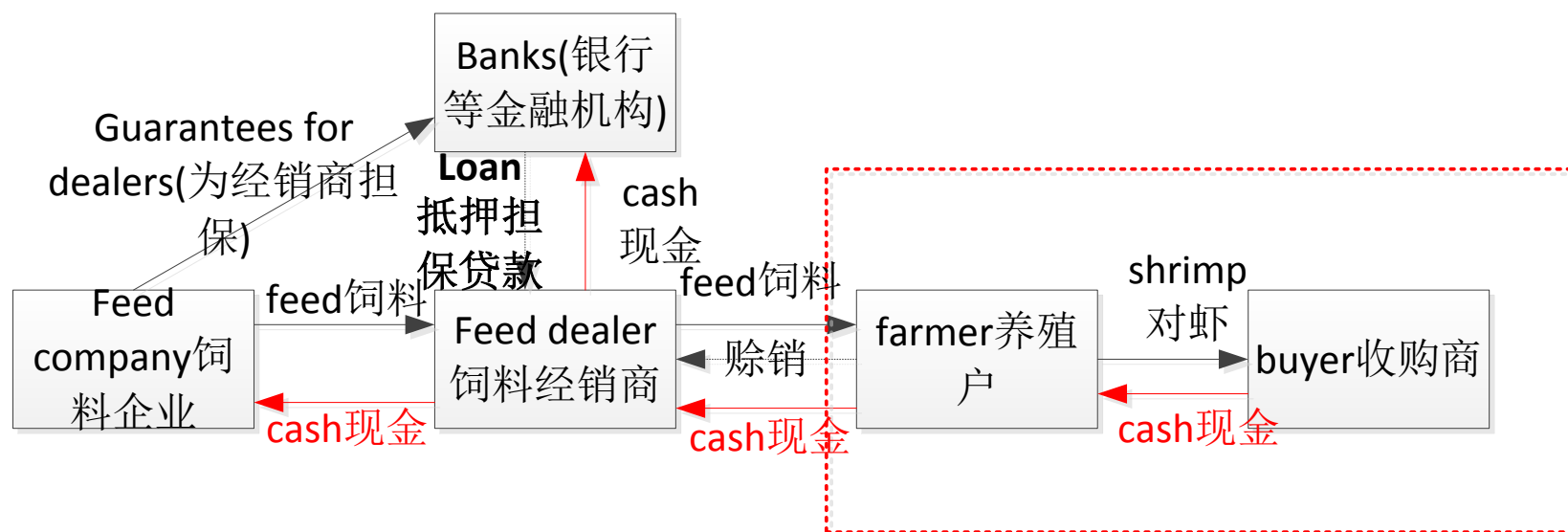


- **Feed company provide trade credit under the condition of checking its dealers' ability**(饲料企业提供赊销时，主要对经销商进行具体的审核，并且会定期对经销商的资质进行评审，以确定是否对经销商进行下一步的赊销。这个“评审—再评审”的动态过程与这条链中的资金结算周期相关。)



Trade credit in inputs of Shrimp culture (continue)

■ trade credit from feed dealer(经销商提供赊销)



Static perspective: how to control risk

- Credit risk control(信用风险控制)
- Local risk control(区域风险控制)
 - acquaintance society/local information(熟人社会、在地化信息)
 - Easy to monitor feeding risk(监控养殖风险)
- Systematic feeding risk(整体养殖风险控制)

Self Characteristic客户自身特征			客户行业特征			客户信用及财务特征		
Items(项目)	credits (评分)	Weight(权值)	Items(项目)	credits(评分)	Weight(权值)	Items(项目)	credits(评分)	weight(权值)
Impression(表面印象)		0.07	公司经营利润(Operating profit)		0.15	Payment records(回款记录)		0.15
Age(年龄)		0.06	Faith(对产品的信心)		0.1	Bank credit(银行信用)		0.06
Family(家庭)		0.06	Market management(市场管理能力)		0.08	Dealers' goodwill(经商信誉, 口碑)		0.1
Feed type(养殖方式)		0.08	Mortgages(有无担保抵押)		0.12	Assessment of assets and liabilities(资产负债评估)		0.1
Company identity(对公司认同度)		0.16	substitution (客户可否替代)		0.06	Solvency(偿债能力)		0.15
development potentiality(发展潜力)		0.12	Second level retailer(有无二级零售商)		0.1	Total assets(资本总额)		0.08
Mode of operation(经营方式)		0.1	Feed dealer or farmer(经销还是养殖户)		0.08	Account management(帐务管理)		0.08
Legal documents(合法证件)		0.12	Saling ages(经销年限)		0.07	Management projects(经营项目)		0.06
Local people(是否本地人)		0.11	Franchise or Concurrently(专销还是兼销)		0.08	Financing capacity(融资能力)		0.12
Society background(社会背景)		0.12	Feeding techniques(养殖技术水平)		0.16	Self operating profits(自身经营利润)		0.1
Total(评分小计)		1	Total(评分小计)		1	Total(评分小计)		1



Static perspective: how to control risk(continue)

■ Regional risk(区域风险)

- **(1)Farmer screening: use the “acquaintance society” Mechanism**(一是对养殖户的筛选。养殖户养殖能力一般是比较难观察，而且要靠长期的积累或者是“熟人社会”机制，才能获取到个人养殖技术的高低。这种方式则充分利用了养虾前期风险大、需要高技术的特点，来筛选优质的赊销对象。)
- **(2) Improve the recovery of credit funds:prepaid(0#/1#feed)+credit; use feeding techniques to screening farmer**(另一个是在资金上的控制，提高赊销资金的回收情况。在初期0#、1#料时，通过养殖户预付的方式可以保证饲料款的回收，提高经销商的现金流动性。前期成本小，风险高，通过预付保证饲料款回收；后期成本大，风险相对低，通过“养殖技术”的筛选，提高赊销对象的养殖成功率，进一步提高饲料款的回收概率，降低坏账比例。)

■ Feed risk(养殖风险)

- **Input quality (feed, seed, broodstock, medicines)**(在对虾养殖中还存在着各种各样的其他风险：种苗风险、虾药风险、养殖技术风险等，这些风险的存在又进一步提升了对虾养殖风险。)
- **Use one company's feed and young shrimps(for exanple:Haida),get some guild from these company**(在提供对虾饲料的同时，也提供海大种苗，虾药，在整个生产环节中全程帮助养殖户进行养殖技术指导)



Dynamic perspective: how to control risk

■ Company scale and trade credit(企业规模与贸易信贷)

- **Big feed companies prefer mortgages, well small feed companies rely on credit**(大型饲料企业更多利用抵押品方式对外赊销，中小饲料企业则是更多依赖信用方式对外赊销。这种赊销对象的差异主要是饲料企业对在地化知识与信息的差异造成的。)

■ Main risk and trade credit(主导风险与贸易信贷)

- **Disease outbreak: lower the proposition of trade credit** (病害爆发期，饲料企业及经销商会主动收缩赊销比例；)
- **whole producing trade credit → trade credit after 2#feed**(赊销时点上，越来越多的经销商在对虾2#料时开始赊销，并非全程赊销。)

■ Company development stage and trade credit(企业发展阶段与贸易信贷)

- **Only produce shrimp feed: don't accept ponds as mortgages; produce both feed and seed: accept ponds as mortgages** (不同企业发展背景的情况下，企业接受的抵押品也在不断扩大：在单一生产饲料时期，由于不涉及养殖的具体环节及加工环节，饲料企业一般不接受虾塘抵押及对虾抵押。而在企业开始进行产业链延伸，实行纵向一体化战略时，饲料企业开始接受虾塘抵押及对虾抵押。)

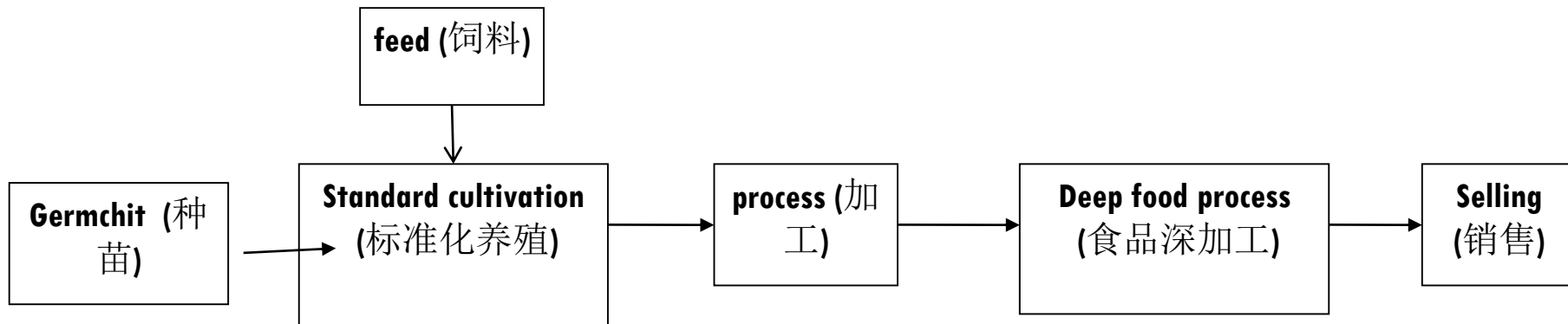


Processing and circulation of shrimp (对虾加工流通)

- **The edible method (食用方法) : Cooking& Deep processed and packed food (烹饪和深加工食品)**
- **Processing and circulation of shrimp (对虾流通加工链) :**
 - **The core manufacturing company + farmers mode (核心加工公司+养殖户模式)**
 - **Farmers + wholesale market + processing enterprises (养殖户+批发市场+加工企业)**
- **Characteristics of shrimp industry chain (对虾产业链的特征)**
 - **Seasonal characteristics of shrimp industry (对虾产业具有季节性特征)**
 - **The core enterprise are at both ends in the industry chain (产业链中的核心企业在两端)**
 - **The risk transfer on the industrial chain (产业链上的风险转移)**



“Manufacturing company + farmers mode”国联水产公司+农户模式



■ **Integration of Shrimp industry chain** (Germchit , forage , Standard cultivation, process and selling)
(种苗、饲料、养殖、加工及销售 **纵向一体化产业链**)

■ **Standard cultivation by famers:** Germchit, forage and Standard cultivation program provided by Manufacturing company and the company will purchase the output(推行标准化养殖模式, 为备案养殖农户提供优质种苗供应、饲料供应、养殖示范及技术支持、成虾回收等一站式服务)

■ **purchase raw material by cash**(上游原材料采购以现金结算), **part selling on credit**(下游产品销售又存在一定的账期); **Seasonal characteristics**(采购存在严重的季节性); **Fund Shortage of The core manufacturing company**(核心企业资金压力)。

■ **bank credit for the core manufacturing company**(核心企业银行贷款)

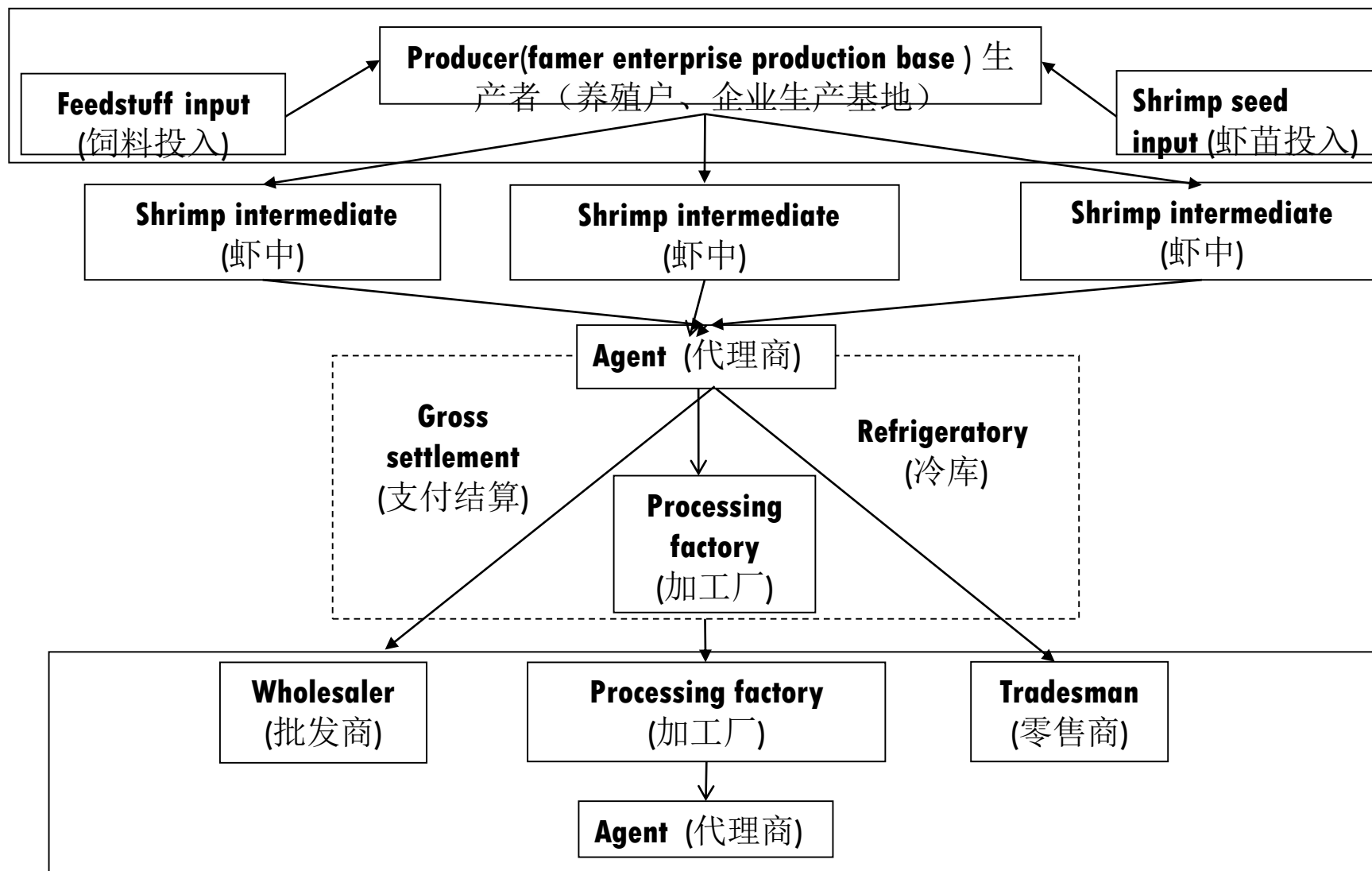


V. The Wholesale Market Platform Building as a Facilitator in Value Chain Financing Innovation: Xiashan Fishery Marketing Loan

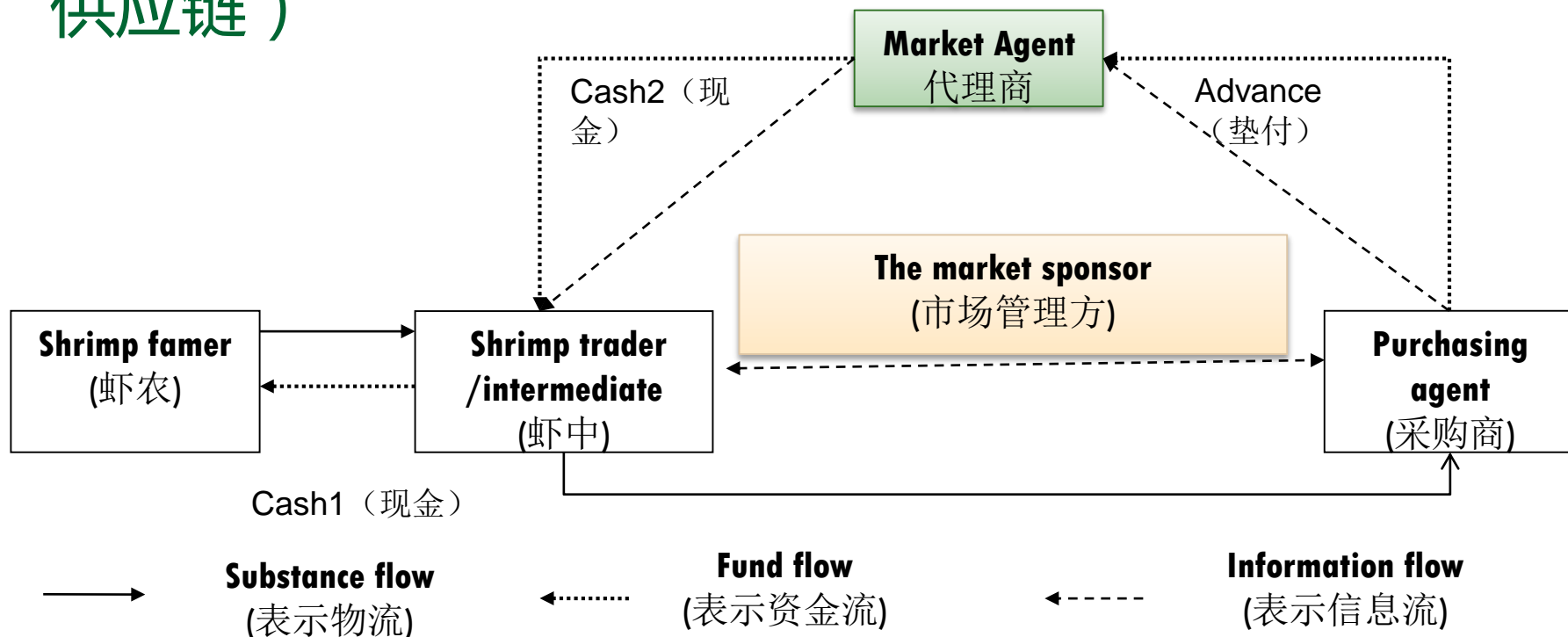
- Introduction
- Bank Credit Service for Middle Man in Fishery Wholesale Market



Introduction



Financial supply chain with Fund GAP (资金压力的金融供应链)



■ **Shrimp intermediate require cash & fund shortage of Purchasing agent** (季节性采购资金短缺vs虾中现金结算要求)

■ **Market Agents pay the cash for the Purchasing agent**(代理商需要垫付资金给虾促成交易)

■ **Fund Shortage of the Market Agents: usurious**(市场代理商资金压力: 高利贷)

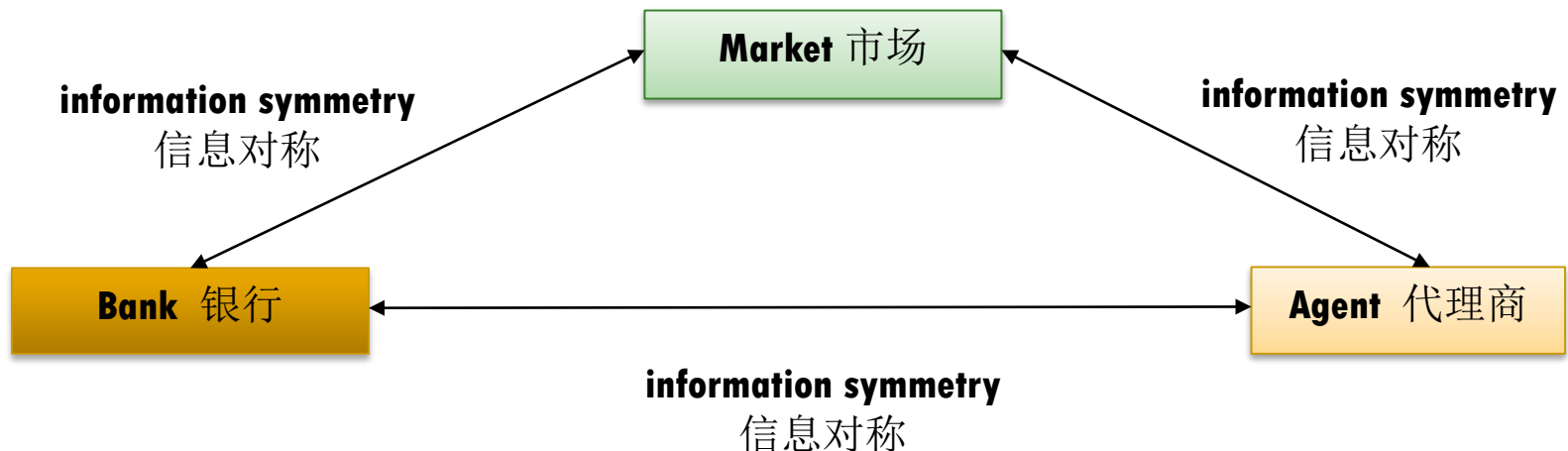


The first Generation Xiashan Aquatic Loans (一代霞山水产贷)

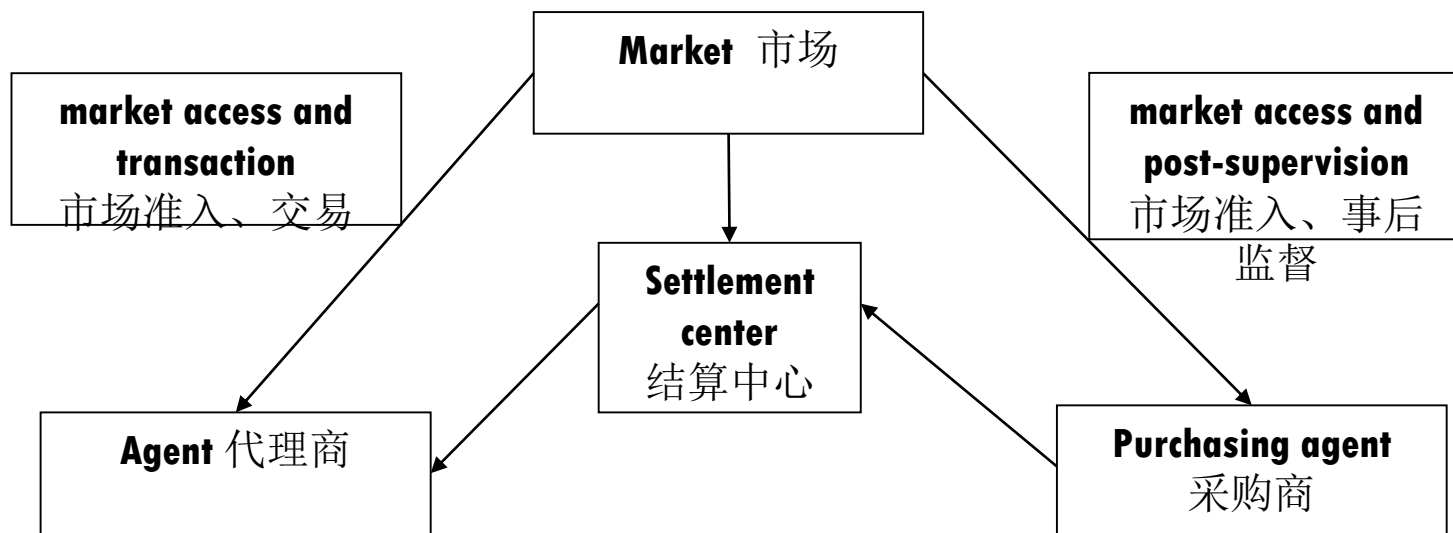
■ CBC loan product: Xiashan Aquatic Loans

- (1) **market agent Apply** (代理商提出申请)
- (2) **Pre audit by the market** (市场做前期的审核)
- (3) **Cooperation between bank and guarantee company** (担保公司和银行合作)
- (4) **market agent provide Counter guarantee** (提供反担保)
- (5) **5 risk control mechanism** (五道风险控制机制)

● **The risk control mechanism 1** (风险控制机制1): **Information symmetry** (信息对称) —— **market** (市场)



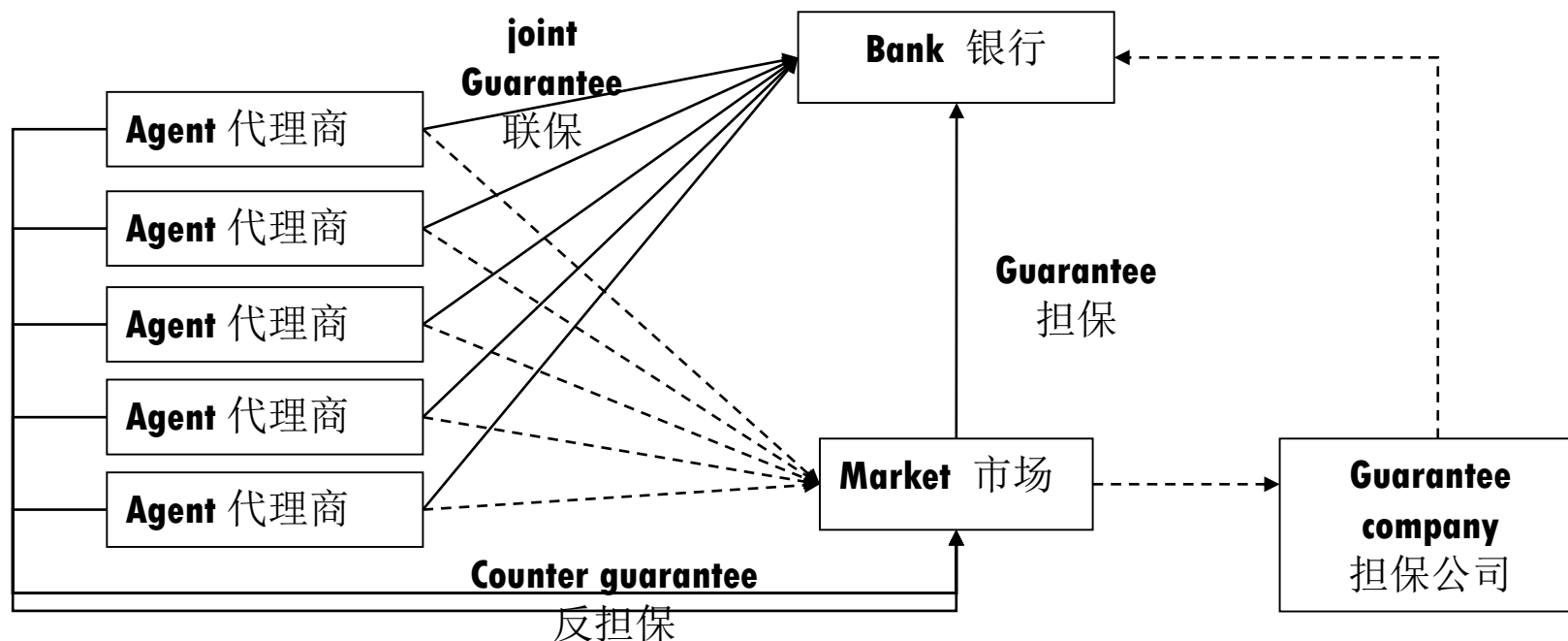
● **The risk control mechanism 2**（风险控制机制2）：**market access and post-supervision**（市场准入及监督机制）



● **The risk control mechanism 3**（风险控制机制3）：**Breach penalty mechanism**（违约惩罚机制）

● **The risk control mechanism 4**（风险控制机制4）：**Capital flow control mechanism**（资金流控制机制）

● **The risk control mechanism 5**（风险控制机制5）：**Risk sharing mechanism**（风险共担机制）



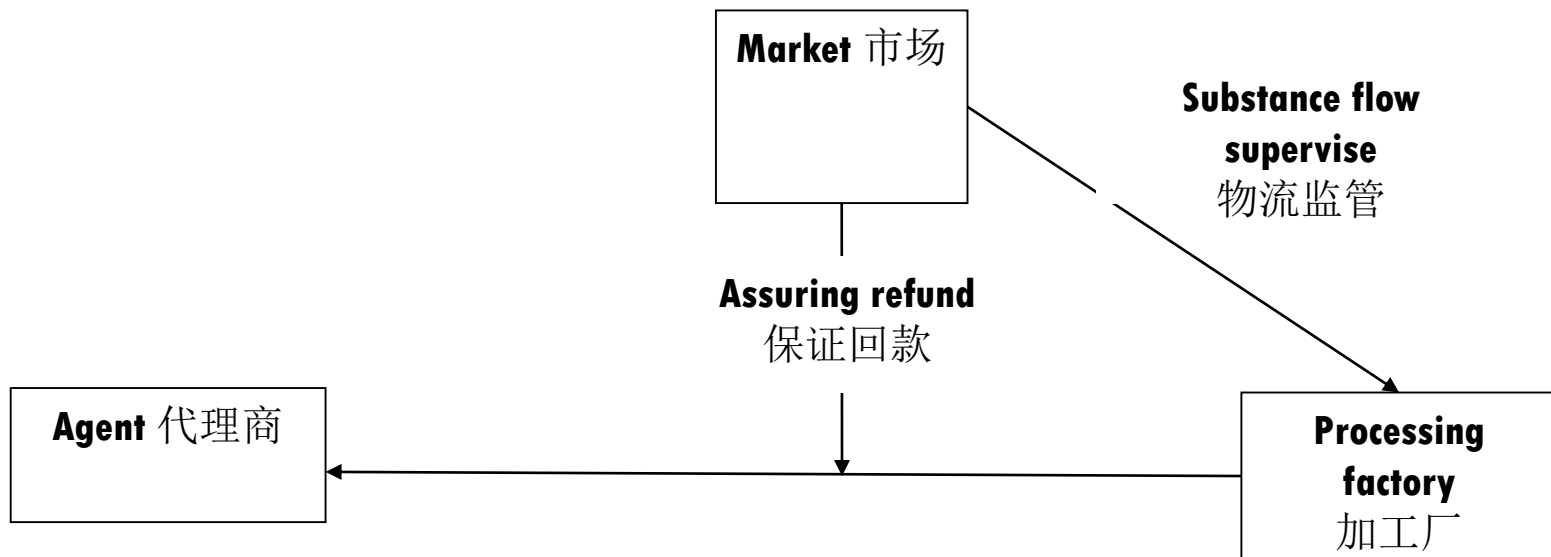
■ **joint Guarantee by 5 market agent (10%*5)+ market guarantee(35%) + bank guarantee (15%)**(五个代理商进行小组联保，每户提供10%的担保金，市场提供35%的担保，银行承担15%)



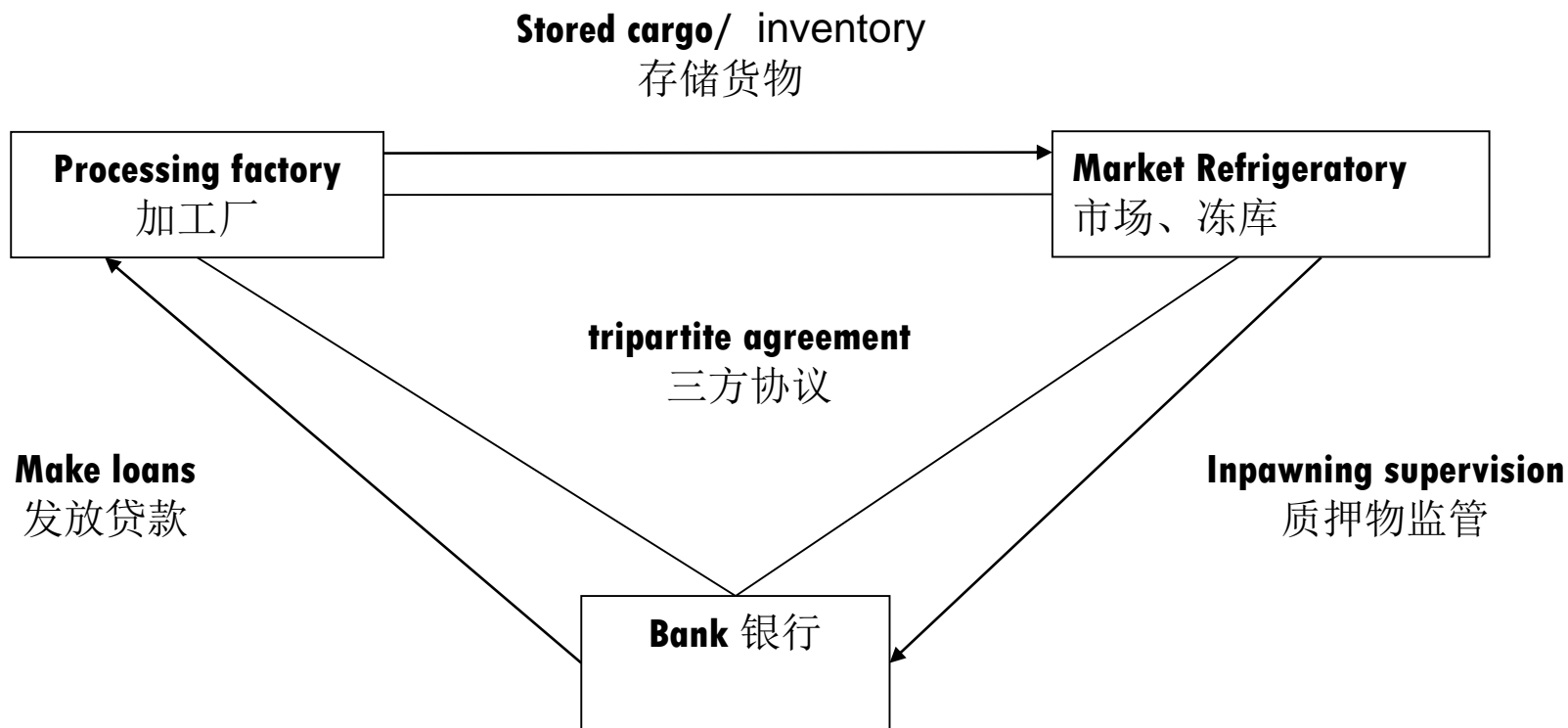
The Second Generation Xiashan Aquatic Loans (二代霞山水产贷)

■ In 2012, Cold storage and processing zone was built in the new market, thus provide new control of Substance flow (2012年，冻库和加工区的建设以及物流控制)

● The risk control mechanism 6 (风险控制机制6) : Processing factory agglomeration —— control of Substance flow (加工厂集聚——物流监控、信息更加透明)



● **NEW risk control mechanism 7**（风险控制机制7） **Cold storage——Product pledge**
（冻库——产品质押）



VI. Major Policy Implications

- Promoting agri-value chain financing as a tool to improve access to finance for agricultural producers. In particular, trade credit can still play a significant role in financial inclusion.
- Supporting agri-food enterprises and wholesale markets which can play a key role in linking the upstream and downstream actors along the chain, and supply trade finance to small agribusiness and other entities.

- Encouraging small viable farms to rent more lands and get bigger that will facilitate agri-food value chain and value chain finance.
- Encouraging smallholders to join agricultural cooperatives or link with big farmers which can connect with agribusiness to alleviate the exclusion in value chain finance supplying.

Thanks!

谢谢！

