



# Alternative finance in the international business context: a review and future research

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## Abstract

Firms increasingly rely on alternative finance (AF) in addition to banks and equity markets, and its usage across countries differs significantly. We conceptualize AF as financing that operates within social, business, and virtual networks that generate informational, collateral, and incentive advantages compared to finance relying on traditional financial intermediaries. Examples of AF include family loans, microfinance, trade credit, community credit cooperatives, person-to-person (P2P), and crowdfunding. While AF is not a new phenomenon, technological development continues to facilitate its increasing prominence. We review the evolution of AF theories, summarize key empirical findings, and describe how AF intersects with international business (IB) research. Specifically, we review how AF feeds into the analysis of comparative financial systems, financial development, comparative corporate governance, and national culture. We conclude that AF has shaped comparative research in IB in important ways, but cross-border research in IB has hardly considered the role of AF. Globalization and technological development and adoption in the financial industry generate rich fields where AF and IB intersect; these have yet to be understood. We describe how IB research, specifically addressing the cross-border dimension, could benefit from integrating insights from AF research, and propose approaches to integrate theories on AF, IB, and internationalization.

**Keywords** Alternative finance · International business · Comparative financial system · Fintech

## Introduction

We define alternative finance (AF) as a variety of financing channels that rely on social, business, and virtual networks and operate outside formal financial institutions, such as banks, public debt and equity markets, and government entities. Its forms include family lending, credit cooperatives, microfinance, trade credits, private equity and debt,

and online financing platforms like person-to-person (P2P) and crowdfunding. Specifically, social relationship lending occurs in families, relatives, and communities within which reputation, trust, and joint collateral play critical roles (e.g., Armendáriz & Morduch, 2010; Besley et al., 1993; Greif, 1989; Lee & Persson, 2016; Tsai, 2002). Business network-based AF could be trade credit, a financing form in which buyers postpone payment of goods to sellers until the goods or new goods produced with this supply are resold (e.g., Burkart & Ellingsen, 2004; Petersen & Rajan, 1997; Schwartz, 1974), or internal financing within a group of firms with cross-holdings or common stakeholders (e.g., Baek et al., 2006; Jiang et al., Jiang, Lee, et al., 2010 & Jiang, Li, et al., 2010). Virtual network-based AF, such as P2P and crowdfunding online platforms or fundraising by crypto-based coins and tokens issuance, utilize technological advancement to reach large groups of borrowers and lenders for capital allocation without involving a traditional intermediary (e.g., Howell et al., 2020; Kshetri, 2015). Social relationships, business interests, and internet technologies facilitate information acquisition, pricing, and monitoring in capital allocation through AF channels.

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Alternative finance plays a vital and increasingly important role in the economy (e.g., Allen et al., 2012; Allen et al., 2005; Fisman & Love, 2003; Khavul, 2010; Kumar et al., 2020). During 1994–2002, AF, including internal finance, capital raised from family and friends, and private equity and loans, accounted for nearly 60% of total funds raised by Chinese firms (Allen et al., 2005). Based on a sample of 3500 firms across 34 countries from 1990 to 2011, Levine, Lin and Xie (2018) show that trade credit accounts for 25% of firm financing. According to the data collected by the Cambridge Centre for Alternative Finance (CCAF) at the University of Cambridge, the global market of AF through online platforms reached 175 billion USD in 2019, and its size and development varied substantially across regions.

In this article, we review and analyze theories and practices of AF, and its research prospects in the international business (IB) context. Alternative finance in the IB context encompasses both the comparative dimension and the cross-border dimension. The comparative aspect of AF in IB tackles the fundamental notion that firms operate in specific contexts. Therefore, AF may be more important in certain specific contexts than others, and the nature of the alternative financial system may also differ among countries. The cross-border aspect of AF in IB resonates with the fundamental notion that contextual variation matters when firms do business across borders. Therefore, firms' IB strategies, such as internationalization process, management, entry mode, and governance, may be affected by the role of AF in the space where the firms' operations are exposed to one in contrast to another, or all other spaces (Beugelsdijk, 2022; Beugelsdijk & Mudambi, 2013). Alternative finance itself could also be international, engaging cross-border transactions.

This review first provides a thorough summary of the theories of AF, emphasizing its information, collateral, and incentive advantages, and corresponding empirical evidence on practices of AF in the existing literature. These works form an ongoing debate about AF's substitution versus complementary role and a newly emerging, competitive view of AF in relation to financing through formal institutions and markets. The substitution view argues that AF will only be considered when financing through banks and public debt/equity markets is unavailable or unattractive (e.g., Biais & Gollier, 1997; Petersen & Rajan, 1997), and hence focuses on elaborating mechanisms to address information disadvantages and moral hazards (e.g., Banerjee et al., 1994; Ghatk, 1999; Karlan et al., 2009; Smith, 1987). The complementary view suggests that AF and formal finance develop together, as, in practice, AF is essential for both small and large corporations (Giannetti et al., 2011) and is prevalent in both developing and developed economies (Allen et al., 2019; Demirgüç-Kunt & Maksimovic, 1998). Allen et al. (Allen, Gu, et al., 2022; Allen, Qian, et al., 2022) propose a competitive view by modeling various financing channels

under the same transactional setting measured by incentive and bargaining power parameters. Alternative finance turns out to be the optimal choice under many parameter spaces. Implications of the competitive view are consistent with a wide range of empirical evidence on AF's usage, costs, and outcomes in practice. In recent years, technology-enabled P2P and crowdfunding practices have broadened networks and reduced search costs for market participants who are mostly strangers, which aggravates adverse selection. Alternative finance's advantages, such as signaling or joint collateral, and implicit benefits become more important in the expanded online networks (e.g., Caldieraro et al., 2018; Kawai et al., 2022; Schwienbacher et al., 2014).

We then review studies on AF in the IB context, which are mostly concerned with comparative aspects. Alternative financing finds ways into IB's research agenda through topics such as comparative financial systems and development, comparative corporate governance, and national culture. The three views on AF generate distinct implications for AF in the IB context concerning financial systems and development, but all suggest that the importance of AF is contextual across countries (i.e., difference in degree). Capital endowment, investor protection, legality, state ownership, and national culture and values affect firm trade credit, family business, microfinance penetration, and forms and performance of online marketplace lending (e.g., Ahlin et al., 2011; Berrone et al., 2020; Chen et al., 2021; Kshetri, 2015, 2018; McIntosh & Wydick, 2005). These institutional factors are essential determinants of AF's forms, size, costs, risks, and values. They are also endogenous to financing choices, jointly determining comparative financial architecture worldwide. Recent studies also address the difference in the operation and contributions of the alternative financial system itself (i.e., difference in kind). For example, Giannetti and Yu (2015) directly addresses how the role of AF depends on countries' capital endowments. Overall, these studies acknowledge that financial systems and corporate governance regimes differ across countries, questioning the existence of a universal best, and call for a better understanding of alternative financial systems.

In the future research section, we discuss new developments in AF followed by the cross-border aspect of AF in an IB context. Technological advancements and artificial intelligence in AF are leading to revolutionary changes in the global financial system, transforming financing forms and impacting values and risks for both AF and conventional financial intermediaries. Geopolitical tensions cause disruptions to globalization and international supply chains, impacting multinational corporations' (MNCs') capabilities and strategies. Understanding the cross-border aspect of AF is critical to navigating MNC strategies in this exciting and challenging business world. We elaborate potential research questions about AF in the



MNC (how AF is used differently in MNCs from firms-in-one-space and what influences the applications), cross-border transactions of AF (internationalization of AF and how AF facilitates cross-border capital flows, international trade, supply chains, and asset allocations), and AF and internationalization strategies (how AF usage and differential effects across countries impact firms' internationalization strategies, outcomes, and transmissions and diffusions of capital, technology, and value). We also propose a cross-border arbitrage framework and information-, interests-, and value belief-based network and distance concepts as potential ways to integrate theories in AF, IB, and internationalization. Overall, a rich field of theory, practice, regulation, global competition, and political economy issues around AF in the IB context and technological applications is yet to be explored.

## Theories and practices of alternative finance

Finance scholars distinguish three categories of AF based on the networks that fund flows rely on: (1) social networks, (2) business networks, and (3) virtual networks (Allen & Qian, 2024). These three categories are not mutually exclusive but partially overlap, and each is associated with particular characteristics. Social networks in the AF context refers to friends, families, relatives, peers, and communities. Examples of social network-based AF include family loans, joint lending in communities, rotating saving, private equities, and debts. Business networks in the AF context refers to connections occurring through trading (e.g., suppliers and customers), business groups and associations, and employment. Examples of business network-based AF include trade credit, invoice trading, equity and loans within business groups or members of a business association, and insider debt. Virtual network in the AF context refers to online social communities and internet-based business platforms. Examples of virtual network-based AF include P2P, crowdfunding, and crypto asset issuances. We list detailed examples of AF and channels for each category in Table 1. These AF channels, while taking different forms, share common elements concerning information production and incentivizing mechanisms through the networks. In practice, those based on social relationships such as family and community lending have the longest history. Business networks, such as trade credit, have been studied most extensively. Person-to-person and crowdfunding are relatively recent but fast-expanding innovations using internet technology (see Table 2 and Fig. 1). All have become important channels of financing.

## The evolution of theoretical views on AF

Initially, AF was conceptualized as a substitute for traditional formal channels of financing such as bank lending, as family, social, business, and virtual networks would serve as *alternative* channels to traditional financial intermediaries. Early work emphasizes AF's advantages in settings where formal financing through banks, public debt, and equity markets is unavailable or unattractive due to costs or risks associated with information asymmetry and moral hazard issues (e.g., Biais & Gollier, 1997; Petersen & Rajan, 1997). This first wave of studies on AF focused on modeling informational advantages that help overcome information asymmetry and monitoring issues that cause financing through banks and public debt/equity markets to be absent.

Over time, this substitution view has been challenged. Informed by research findings (as we discuss below), finance scholars have conceptualized AF as a complementary channel to traditional financial intermediaries (e.g., Allen, Gu, et al., 2022; Allen, Qian, et al., 2022; Karlan et al., 2009). The assumption of information asymmetry is not a prerequisite for AF advantages and more recent studies model collateral and incentive advantages of AF, emphasizing aspects other than the informational setting. The same macro factors that affect financing through banks and financial markets, such as liquidity availability and transactional environment, also influence AF activities. The rise of AF is thus not only a response to the lack of a well-functioning financial system, but is also positively associated with a well-developed formal financial system. In this view, AF is not a substitute, but a complement, to traditional financial intermediaries.

If AF is not a substitute for traditional financial intermediaries under conditions of information asymmetry and an underdeveloped financial system, under what conditions is AF preferred? Allen, Gu, et al. (2022), Allen, Qian, et al. (2022) introduce a model allowing various financing sources to compete in the same setting. The model incorporates the advantages associated with AF (as discussed in detail below) and demonstrates that, in many spaces and compared to conventional bank loans, it can generate Pareto improvements for borrowers and lenders, specifically, more effort by borrowers, better project outcomes, and sharing of a higher surplus between borrowers and lenders.

This view of AF competing with other sources of finance generates predictions consistent with a wide range of empirical evidence on AF's usage, costs, and outcomes. For example, Allen et al. (2019) show that, controlling for selection, firms using family loans and trade credits outperform those using bank finance. At the sector level, Fisman and Love (2003) show that industries relying on trade credits grow faster than other industries. Allen et al. (2005) show that sectors relying on AF grew the fastest in China during 1992–2002. Cassell et al. (2012) show an inverse



**Table 1** Definition, category, and examples of alternative finance

Definition	A variety of financing channels that rely on social, business, and virtual networks and operate outside formal financial institutions (e.g., banks, public debt and equity markets, and government subsidies)		
Categories	Social network-based	Business network-based	Virtual network-based
Examples	Family-based: Loans from family and relatives Equity financing from family or relatives Community-based: Microfinance Joint collaterals Credit associations Rotating savings Angel financing Private debt Private equity	Trade credit: Account payables Buy-now-pay-later Advancement Business group finance: Through cross-holding (e.g., Korean chaebol) Through intercorporate loans from controlling shareholders (e.g., China) Business Chamber cooperations Insider debt CEO, employee, other stakeholders Future payment liability Securitization or lending through informal financial institutions Balance sheet lending: consumer, business, property Invoice trading, Debt-based securities, Buy-now-pay-later (BNPL)	Debt through P2P/ crowdfunding P2P/marketplace lending: Consumer, business, property Mini bonds (French model through crowdfunding) Equity-based crowd- funding Project equity Real estate crowd- funding Revenue/profit shar- ing Noninvestment crowdfund: Reward-based Donation-based Microfinance Fundraising through crypto assets issu- ance Coins, cryptocurrency Tokens, currencies, or non-fungible tokens (NFT)
Types of advantages	Informational advantage Collateral advantage Incentive advantage	Informational advantage Collateral advantage Incentive advantage	Transactional advantage as a type of informational advantage Preference-induced incentive advantage

correlation between CEO inside debt holdings and the volatility of future firm stock returns, R&D expenditure, and financial leverage. Chava et al. (2019) along with Jiang et al. (Jiang, Lee, et al., 2010; Jiang, Li, et al., 2010) show the implicit benefits in bank lending, with joint ownership of equity and debt of firms, leading to a smaller risk premium and reduction in investment risks. Chu et al. (2020) contend that financially distressed firms borrowing from financial institutions that jointly own their equity and debt are more likely to emerge from the restructuring. Firms with trade credit or internal financing within business groups survive financial crises better (e.g., Garcia-Appendini & Montoriol-Garriga, 2013; Lemmon & Lins, 2003).

Large amounts of capital have been raised by issuing cryptocurrency or tokens in the fintech industry (Howell et al., 2020). Online P2P or crowdfunding provide funds to many projects that are otherwise hard to obtain through conventional financial institutions, although the outcome

of this type of lending is only sometimes positive (e.g., Di Maggio & Yao, 2021; Tang, 2019). Crowdfunders enjoy community benefits that increase their utility (Schwienbacher et al., 2014) and social networks improve the success rate for entrepreneurship (Leyden et al. 2014). Overall, the empirical evidence is ample that the use of AF is extensive (including in contexts where traditional financial intermediaries function well) and the benefits associated with its use have been well documented.

To better understand the rise of AF and how it competes with and complements traditional financial intermediaries, we discuss three categories of advantages associated with it: (1) informational advantages, (2) collateral advantages, and (3) incentive advantages. Whereas the substitution (early) view on AF emphasized the first advantage in the absence of well-functioning financial intermediaries, the other views of AF have also emphasized the collateral and incentive advantages.



**Table 2** The size and growth of alternative finance through P2P/crowdfunding

Region	Market size (USD)		Growth
	2019	2020	
Asia-Pacific	9,541,822,124	8,911,183,422	- 7%
China	84,346,675,112	1,161,105,257	- 99%
Europe	12,233,219,605	9,940,940,894	- 19%
Latin America and the Caribbean	4,833,142,985	5,274,457,369	9%
Middle East and North Africa	763,896,349	594,755,996	- 22%
Sub-Saharan Africa	1,105,847,839	1,215,799,093	10%
U.K.	11,015,704,173	12,642,678.93	- 100%
U.S. & Canada	51,871,355,441	73,929,869,084	43%
Total	175,711,663,628	113,670,790,043	- 35%

This table presents the market size and growth of alternative finance that is mainly through P2P/crowdfunding and part of consumer credits (BNPL) and SME financing (mini-bonds). This narrower definition (compared to the definition in this article) is adopted and data collected by the Cambridge Centre for Alternative Finance (CCAF) at the University of Cambridge

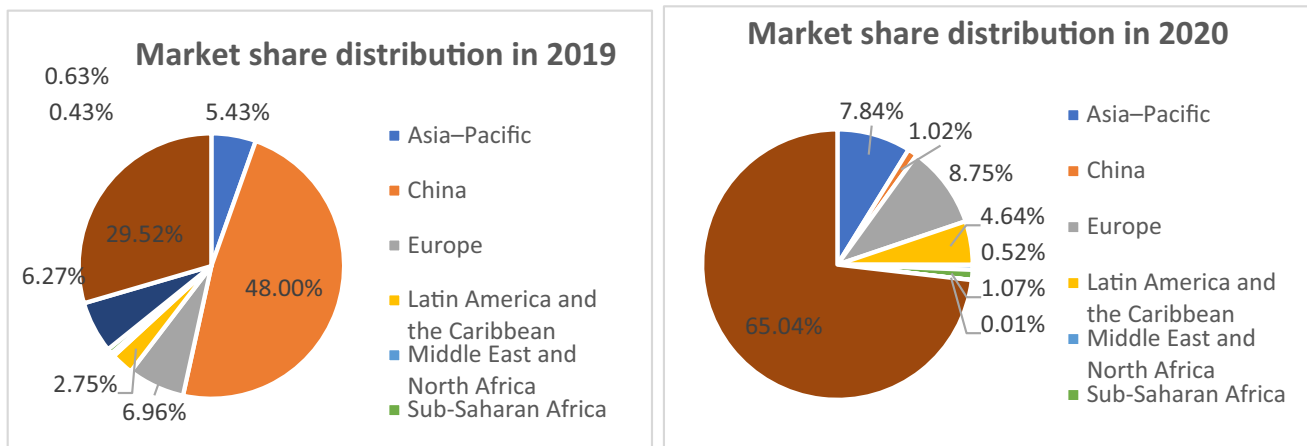
Debt: P2P/marketplace lending – consumer, business, property

Balance sheet lending – consumer, business, property

Invoice trading, Debt-based securities, BNPL, Mini-bonds

Equity: Equity-based crowdfunding, Real estate crowdfunding, Revenue/profit sharing

Noninvestment: Reward-based crowdfunding, Donation-based crowdfunding, Crowd-led microfinance



**Fig. 1** Market share of alternative finance through P2P/crowdfunding by region. This figure plots the market share distribution of alternative finance in 2019 and 2020 by region. The definition and data are the same as those in Table 2

## Informational advantages

Alternative finance provides informational and monitoring advantages through social and business networks compared to formal financial intermediaries. For example, social interactions between borrowers and lenders in family and community lending generate soft information on both parties' characteristics and offer monitoring convenience (e.g., Banerjee et al., 1994; Ghatak, 1999). In lending through business networks, product suppliers have private information about buyers' creditworthiness (e.g., Biais & Gollier, 1997) stemming from inside knowledge of the industry;

interactions with buyers; as well as private information on the size, timing, and records of buyer orders and payments (e.g., Burkart & Ellingsen, 2004; Petersen & Rajan, 1997). In P2P and crowdfunding, the virtual network greatly facilitates information transmission among vast groups of individuals with a capital surplus or deficit. This broad reach to investors and voluntary information disclosure also allows the revelation of crowd preference, complementing expert decisions (e.g., Duarte et al., 2012; Mollick & Nanda, 2016).

Informational advantages within social, business, and virtual networks reduce costs in searching, pricing, and transactions, hence bringing transactional advantages. These cost





advantages stem from social and product knowledge and the inclusion of large projects and credit suppliers. For example, family lending might avoid the documentation assessment banks do, and the transaction could be fast once the decision is made. The initial setup of joint lending might be costly, but the subsequent rotation is relatively more straightforward (Besley & Coate, 1995). The virtual network significantly reduces participating and search costs, giving rise to online financing such as crowdfunding and P2P lending. Voluntarily posting and accessing information online allows many individuals to access projects and capital with minimal and flexible search and transaction costs. Trade credit usage often decreases the frequency of buyer payments from per transaction to monthly or quarterly (e.g., Ferris, 1981). Regularly scheduled payment may also help buyers (borrowers) and sellers (lenders) to lock in prices, similar in effect to equities and commodities futures markets.

The theoretical framework around AF's informational advantage heavily relies on institutional assumptions, and hence faces applicability challenges. Empirical evidence provides mixed results in terms of supporting or contradicting theoretical predictions based on the information advantages of AF. For example, Klapper et al. (2012) show that the largest and most creditworthy buyers receive contracts with the longest maturities from smaller suppliers, rather than the other way around. McMillan and Woodruff's (1999) survey on Vietnamese firms shows that suppliers tend to provide trade credit to a customer when the customer is identified through a business network and it is hard for the customer to switch suppliers.

### Collateral advantages

Social and business networks provide collateral advantages through social contacts or inside knowledge of an industry and its transactions, which facilitates seeking recourse and liquidating collateral. AF theories based on collateral advantages may still fit into the substitution view emphasizing the reliance on collateral advantages to overcome information asymmetry and adverse selection. However, such a setting is no longer a prerequisite for the collateral advantage that is also important for financing based on social and business networks.

Relationships and reputation are essential social collateral in family and community lending (e.g., Udry, 1994). Social collateral enables post-default social sanction and facilitates ex-ante lending designs and monitoring (e.g., Besley & Coate, 1995; Karlan et al., 2009). In joint lending, the peer is a monitor and a cosignee (Stiglitz, 1990). This design is essential in microfinance practices like the Grameen bank lending (Khandker, 2012) where loans are rotated among community members. In business-transaction-based trade credit, the goods sold to buyers

serve as natural collateral. Compared to banks, suppliers can extract greater value from collateral through reselling (e.g., Petersen & Rajan, 1997). As the liquidation advantage is more effective for goods than services, trade credit provision should therefore be more prevalent for input transactions than cash financing, and for goods transactions than service transactions (Fabbri & Menichini, 2010). In crowdfunding, entrepreneurs solicit funds through the preordering of products or a fixed amount of advancement in exchange for a share of future profits (Schwienbacher et al., 2014). They resemble the collateral and strategic investment feature of trade credit with a time delay in delivery.

The collateral advantages also bring in quality guarantees and signal benefits. For example, new suppliers can use trade credit as a guarantee to signal quality to new customers before establishing their reputation. The buyers can verify suppliers' product quality before making payment by allowing buyers to delay payment until after delivery. Trade credit can be an especially useful product quality guarantee for younger and smaller firms. Online marketplaces bring strangers into transactions, a scenario prone to severe adverse selection (Akerlof, 1970); hence, signaling is critical. Caldieraro et al. (2018) theoretically prove how signaling financial product quality can address information asymmetry in the P2P market. The signaling benefit is particularly salient for AF through virtual networks. In practice, borrowers on online lending platforms use a variety of channels, such as statements, photos, online friends, and reservation interest rates, to deal with the adverse selection issue (e.g., Duarte et al., 2012; Kawai et al., 2022; Lin et al., 2013).

Quality guarantees, financing, and signaling have complementary dynamics as reputation in repeated games is a critical mechanism in financing through social and business networks (Allen et al., 2005). On the one hand, financing could signal a quality guarantee as network interactions enhance borrowers' ability to assess creditworthiness. For example, entrepreneurs are likely to choose less risky projects when borrowing from their families (Lee & Persson, 2016). This practice can increase sales by capturing otherwise missed markets (e.g., Lee & Stowe, 1993; Smith, 1987). On the other hand, offering trade credit signals sellers' (buyers') commitment to production (distribution) in the form of financial investment into the distribution (supply) channels. In turn, creditworthiness, commitment, and financial soundness send positive signals to others initially not in the network on which AF relies. These signals help borrowers and lenders access finance or expand their business with others. This theory explains why firms often both take and offer trade credits. Giannetti et al. (2011) empirically confirm the dynamic role of trade credit in production networks in a sample of small nonfinancial nonfarm U.S. businesses.



## Incentive advantages

Alternative finance theories based on incentive advantages emphasize the benefits that are generic to financing through social, business, and virtual networks. Williamson's (1979) contract costs theory of the firm suggests that contractual choices are shaped by relationship-specific investment. Applying this theory is straightforward in family lending because the success of entrepreneurs directly impacts the welfare of family members. In joint lending, by design, financial access of all members in the group is tied to the success of the current borrowers. Consequently, the family and community members have incentives to screen borrowers, provide capital, and monitor the operation (e.g., Armendáriz & Morduch, 2010; Chakravarty & Shahriar, 2015; Pan & Qian, 2024). In business networks, suppliers have an implicit equity stake in the buyer, which may even incentivize them to tailor their products to meet buyers' demands. Suppliers with large cash flows but lacking investment opportunities are more likely to do so, and such investment projects have low risk due to the predictability of the value of inputs and timing of payments for suppliers. It is also easier for suppliers than banks to distinguish buyers' firm-specific resilience to industry shocks. Suppliers can safeguard such investments by tracking buyers' repayment patterns, a good barometer of financial health (Petersen & Rajan, 1997). Dass et al. (2015) show that trade credit in practice is positively associated with upstream firms' relationship-specific investments and downstream firms' market power, empirically confirming the relationship-specific investment role of trade credit.

The incentive advantages of AF may also come from regulatory benefits because regulatory arrangements offer benefits for specific forms of AF. For example, tax benefits could motivate the flow of trade credit in the absence of any assumption of credit market imperfections. The distribution of marginal tax rates among buyers and sellers determines the direction of trade credit flow in maximizing joint tax savings and profits (Brick & Fung, 1984). Government efforts to address small business development may result in policies to support crowdfunding, and the uncertainty of institutional arrangements between borrowers and lenders plays a critical role in the success of crowdfunding (Kshetri, 2015). However, regulatory relaxation leading to a boom in AF might also result in high systemic risk, bringing the industry to an end. The rise and fall of P2P in China is a perfect example of such mishaps (Li & Qian, 2023).

The incentive advantages of AF may also come from lenders' preferences beyond economic considerations. For example, altruism underlies family loan models (Lee & Persson, 2016; Noe, 2012). Altruism towards family members motivates low-cost financing. However, this mechanism also transfers the risks of entrepreneurship to families, and, being

aware of such, entrepreneurs may take on projects that are relatively low-risk among potential projects. Therefore, this practice could increase household risk and result in risk at a sector level. Preferences on environmental issues or professional circles are evident in crowdfunding. For example, clean technology campaigns are one of the most popular types of crowdfunding and they often have higher capital goals, more photos, video pitches, and longer text descriptions in their online profiles compared to non-cleantech campaigns (Cumming et al., Cumming, Filatotchev, et al., 2017; Cumming, Leboeuf, et al., 2017). In practice, personal values such as environmental passion are strong motivators behind many crowdfunding programs (Kshetri, 2015).

The incentive advantages through networks or preference bring liquidity provision or insurance during difficult periods of business. Garcia-Appendini and Montoriol-Garriga (2013) find that firms with high precrisis liquidity increase trade credit extended to other corporations and subsequently experience better performance than ex-ante cash-poor firms, suggesting that trade credit provides liquidity insurance. Cunat (2007) empirically verifies suppliers' dual roles as debt collectors and insurance providers when offering trade credit.

## Alternative finance in international business

Alternative finance relates to IB research in multiple ways. Conceptually, AF can be studied by taking a comparative perspective: Countries differ in the extent to which AF is used and this shapes their overall financial system and the way firms are financed and organized. As multinational enterprises (MNEs) are exposed to such cross-country differences because they operate across multiple contexts, AF can also be studied taking a cross-border perspective: how AF transacts across borders and MNEs gain from the cross-border differences. Finally, internationalizing firms may leverage AF to finance their international operations. Despite a voluminous finance literature that theorizes and documents various practices of AF, their economic mechanisms, finance, and governance roles, these studies receive disproportionately little attention in top finance journals and even less for AF in the IB context, compared to the significance of AF in the world economy. We count the number of studies for each type of AF in the top three finance journals and the *Journal of International Business Studies* (JIBS) in Appendix A1 and find that JIBS provides the most international studies on AF. The number of these studies is not large and they predominantly focus on the comparative aspect of AF in IB; relatively few studies explore the cross-border aspect. Below we review the most important ways in which AF relates to IB. We have organized our review along three main pillars: (1) comparative financial systems and financial



development, (2) corporate governance, and (3) national culture. This classification does not mean that AF is only relevant for these topics. We just use this classification to review the literature of AF in the IB context.

### Comparative financial systems and financial development

The substitution, complementary, and competitive views on AF's role suggest distinctive relations between AF and financial development across countries and differences between countries.

The substitution view argues that AF fills the financing gap in countries with an underdeveloped financial system. That is, AF is often used in countries with less developed financial systems and weak markets. Empirical evidence is only partially consistent with this view. For example, "financial inclusion" through microfinance provides saving, insurance, and payment services in underserved communities (Armendáriz & Morduch, 2010; Cull & Morduch, 2017). However, there is a lack of sustained evidence that access to microfinance can reduce poverty, improve living conditions, or empower women (e.g., Banerjee et al., Banerjee, Duflo, et al., 2015; Banerjee, Karlan, et al., 2015). There are studies that find that microlending is a primary channel for capital to tap into the profit opportunities of small businesses in Guatemala and the Dominican Republic (Bruton et al., 2011). Other studies also suggest that P2P transactions pick up deals marginal to bank loans (Tang, 2019). Technology-based microfinance, such as mobile money and financial access, is booming, particularly in developing countries (Suri, 2017).

Nevertheless, the use of AF is not limited to countries with poorly functioning financial systems, it is also often complementary to finance through formal financial institutions. In the United Kingdom and the United States, despite the existence of developed formal financial systems, family lending is increasingly important to startups (e.g., Basu, 1998; Dunn & Holtz-Eakin, 2000). Trade credit, the most popular form of AF, is employed more by large or monopoly firms than by small firms, despite the former having better access to bank loans (e.g., Lehar et al., 2020). Oh and Rosenkranz (2022) find that financial institutions' efficiency, financial literacy, and access to formal financial services are positively associated with the expansion of P2P lending. Eça et al. (2021) find that funds from technology-based online platforms go to high-quality small firms that already have access to bank credit. Recent studies show that trade credit has been an important distribution channel for conventional and unconventional monetary policies (e.g., Adelino et al., 2023; Brechling & Lipsey, 1963). Allen et al. (2019) show that trade credit is more popular in regions with more developed banking.

Love et al. (2007) show that firms with a low level of short-term debt reduce the supply of trade credits during a bank credit crunch.

Alternative finance is present across a wide range of countries with varying levels of financial system development. The competitiveness of AF depends on the transactional setting (Allen, Gu, et al., 2022; Allen, Qian, et al., 2022). Like traditional financial intermediaries, AF is widespread worldwide and, depending on the characteristics of the financial systems and the cultural and institutional context in which the financial system is embedded, it is more or less popular. Cultural values, industry structure, social structure, kinship, state power, and institutional/legal frameworks all influence the competitiveness of AF, providing many opportunities for comparative studies (Allen, Gu, et al., 2022; Allen, Qian, et al., 2022). Therefore, the analysis of comparative financial systems against the background of the rise of AF would benefit from paying closer attention to AF, not only in countries where it serves as a substitute for traditional financial intermediaries, but also in those with well-developed financial systems. This is not just a matter of how much firms across countries rely on AF, but also the type of AF, the mechanisms behind its use, and how these mechanisms differ between countries with different financial systems and different levels of financial development.

A good illustration is provided by Giannetti and Yu (2015). They theoretically demonstrate that relationship-based finance can be optimal in developing economies with low capital endowments. In their model, only high-quality entrepreneurs receive funding in this case. This can be through formal financial institutions or relationship-based finance channels. However, the former may shift more rents from entrepreneurs to financiers compared to the latter. This is because relationship concerns, strategic investments, or altruism in the latter motivate better surplus sharing between borrowers and lenders. In contrast, in developed economies with high capital endowments, this optimality of relationship-based finance no longer holds. Low-quality entrepreneurs who are geographically close may be funded because of the distance limitation of relationship networks even when there are high-quality entrepreneurs who are geographically distant. Formal finance though prevents funding of low-quality entrepreneurs and only high-quality entrepreneurs receive finance.

An empirical illustration is that the effects of financial development and financial literacy on P2P lending differ in emerging and advanced economies. For example, Oh and Rosenkranz (2022) show that physical infrastructure, including both branch and ATM penetration of financial institutions and information technology, is an essential prerequisite for P2P lending to be positively associated with efficiency and access to formal financial services.





## Corporate governance

Corporate governance, considering interests of various stakeholders, is a critical aspect of financing. Comparative corporate governance focuses on how and why corporate governance practices differ across countries (Aguilera & Jackson, 2003; Aguilera et al., 2019), emphasizing country-level influences from the legal system, political economy, and heterogenous stakeholders and their interests (e.g., Licht, 2003; Roe, 2003). On the one hand, in developing economies, the prevalence of AF is often highly correlated with poor institutions, weak legal systems, low accounting standards, and high corruption. These dimensions are conventionally regarded as poor governance. On the other hand, AF uses relationship and reputation in the social and business network to provide alternative governance mechanisms. These governance features of AF are not limited to countries with poorly functioning corporate governance regimes (Allen et al., 2005). International business scholars have studied AF mostly through cross-country differences in investor protection and ownership patterns, including differences in start-up patterns.

*Investor protection.* A sizeable IB literature studies how differences in investor protection relate to differences in the usage and operation of AF. For example, the business environment, financial sector regulation, and institutions are important determinants of the dispersed penetration rates of microfinance across countries (e.g., Ahlin et al., 2011; McIntosh & Wydick, 2005). Cull et al. (2014) show that accounting transparency, client protection, the quality of credit bureaus, and the feasibility of financial transactions through agents are all positively associated with microfinance penetration rates. Regulation development is positively associated with microloan size (hence negatively associated with outreach to poorer clients) and the performance of commercially oriented microfinance institutions. Cull and Morduch (2017) show that microfinance borrowers' profiles vary widely across countries. For example, 81% of borrowers in the Asian and Pacific are women, 61% are among the poorest in the economy, and 51% are the most impoverished women. In contrast, the corresponding ratios in Latin America and the Caribbean are 62%, 16%, and 12%. Moreover, joint collateral in microlending improves monitoring by lenders and cosigners (Chakravarty & Shahriar, 2015; Stiglitz, 1990) just as trade credit does through strategic investment purpose and joint insurance mechanisms. Another extensive literature examines how regulation, financial development, and infrastructure affect the development and role of online financing platforms such as crowdfunding and P2P. Kshetri (2015, 2018) proposes that the success rate of online crowd-based fundraising is higher in countries with a friendly regulatory framework and legislation that helps balance interests between entrepreneurs and investors.

Cross-country differences in accounting or reporting regulations impact investor protections and therefore financing choices and costs that firms face across countries. Firms in countries that implemented International Financial Reporting Standards (IFRS) are more likely to access public rather than private debt markets (Florou & Kosi, 2015), but the reduction in debt financing is only present in bond markets, not bank loans. These results are driven by cross-country differences in the extent to which Generally Accepted Accounting Principles (GAAP) and IFRS are implemented. Additionally, Li et al. (2021) find that firms receive more trade credit from their suppliers in countries that mandate IFRS, suggesting that improved financial reporting quality and comparability facilitate AF. The effect is particularly significant in countries with low societal trust, a poor pre-IFRS-adoption information environment, and stronger legal enforcement and for firms with greater exposure to foreign markets. The positive impact of IFRS on AF also presents within countries. Li et al. (2021) show that the adoption of IFRS boosts firms' capacity to receive trade credit.

*Ownership patterns.* Both IB and finance scholars have documented how ownership patterns, for example, state, family, or diverse ownership, differ across countries, and how ownership type, concentration, and the wedge between control rights and cash flow rights influence firm behavior and performance (Claessens & Fan, 2002; Thomsen & Pedersen, 2000). Alternative finance plays a role in comparative corporate governance when it comes to family ownership, business groups, and state ownership.

Alternative finance in the form of internal financing within business groups is tied to distinct ownership patterns. These firms in business groups are either cross-held by a family as the ultimate owner, such as chaebol in Korea (Baek et al., 2006), or have a common controlling shareholder or stakeholder, such as intercorporate lendings in China (Jiang et al., Jiang, Lee, et al., 2010 & Jiang, Li, et al., 2010; Qian, & Yeung, 2015). While financing within business groups formed through ownership structure is common worldwide, business groups also take different forms across countries: In the United States or the United Kingdom, multiple business units exist as divisions or wholly owned subsidiaries of a single parent company. In such conglomerates, internal capital markets focus on competition for resources among divisions/subsidiaries. In Korea (e.g., Byun et al., 2013), Italy (Santioni et al., 2020), and France (Boutin et al., 2013), firms with a common family ownership form a business group. In China, most publicly listed firms' controlling shareholders are unlisted (private or state) firms (occasionally individuals or families). Intragroup borrowing becomes a common practice for them to transfer benefits among these firms (e.g., Friedman et al., 2003; Qian & Yeung, 2015). In Japan, business groups typically have a bank at the center of the network.



At the cross-country level, Chen et al. (2021) show that trade credit is more prevalent in countries with higher state ownership. Within countries, Cull et al. (2009) show that state-owned firms tend to offer trade credit to private firms with credit constraints. Both literatures reason that the pattern is due to banks' preferential treatment of state-owned firms in credit allocation, hence state ownership is positively associated with trade credit provisions. State-owned enterprises' (SOEs') redistribution role through trade credit and intercorporate loans is often associated with the poor performance of state-owned firms, and consequently weakens the market's disciplinary power (Cull et al., 2009; Qian, et al., 2015). State ownership is a crucial channel for the state to influence firm decisions, and these studies demonstrate that a nation's institutional environment systematically affects opportunities and motivations for SOEs to grant trade credit. State-owned enterprises are more likely to offer trade credit, not only in countries with less developed financial markets or weaker legal protection of creditors, but also in those with less comprehensive information-sharing mechanisms, more collectivist societies, and higher levels of unemployment. State-owned enterprises' trade credit provisions decrease when state ownership is low and internationalization high.

*Firm size and age.* Small firms often employ microfinance, family loans, and community credit associations. These firms have a high correlation with family ownership. For trade credit, although it exists in large and small firms, the prevalence or direction of fund flows varies with firm ownership. The substitution view suggests that firms with limited or no access to bank loans and public equity markets turn to AF. Empirical results show some consistency with this view. For example, AF based on social networks is used more by entrepreneurial new firms than mature ones, more by family-owned small firms than diversely owned large ones, and more by private firms than publicly listed ones.

Alternative finance is highly correlated with entrepreneurial activities because start-ups and young firms have difficulty accessing formal equity markets and bank loans. This phenomenon is likely to be true irrespective of the stage of economic development. In China's early stage of fast economic growth, family loans were essential to financing firms through their startup phase (Allen et al., 2005). In the United Kingdom and the United States, AF, particularly family loans, has been increasingly important to startups (e.g., Basu, 1998; Dunn & Holtz-Eakin, 2000). The usage of AF by start-ups may vary with entrepreneurs' personal traits (Elston & Audretsch, 2010). Based on survey data on small firms, older, white, and more creditworthy entrepreneurs are more likely to report no need for credit, but about one in three discouraged borrowers would have received credit had they applied for it (Cole & Sokolyk, 2016). Crowdfunding is also playing an increasing role in entrepreneurial activities (Kshetri, 2015, 2018). Crowdfunders enjoy community

benefits that increase their utility (Schwienbacher et al., 2014) and social networks improve the success rate for entrepreneurship (Leyden et al., 2014).

## National culture

Legal and financial institutions explain a substantial part of the cross-country variation in corporate governance practices; while two dimensions of national culture – individualism and uncertainty avoidance – capture about 90% of the country fixed effects (Griffin et al., 2017). A voluminous literature studies how institutional factors like culture and values affect firms' capital structure decision on equity versus debt and debt structure. For example, El Ghouli et al. (2018) show that firms are more likely to employ a zero-leverage policy in countries with high scores on Schwartz's (1992, 1996) Conservatism and Mastery indices. Boubakri and Saffar (2019) find that the use of bank debt financing is more pronounced in countries with a left-oriented government and a collectivist national culture.

The popularity of AF displays salient patterns across countries in regard to cultural and institutional characteristics (e.g., Djankov et al., 2007; Stulz & Williamson, 2003). For example, family loans are popular in countries with strong family values and interpersonal trust (Mertzanis, 2019; Tsai, 2002). Intercorporate loans are one of the most important financing sources in countries with large cross-holding and business group structures such as the Korean chaebol (Baek et al., 2006). In contrast, insider debt takes the form of an institutional liability in the United States with its well-established retirement system. National culture significantly influences firms' decisions on retained earnings and trade credit (El Ghouli & Zheng, 2016; El Ghouli et al., 2016). Happiness and trust in government positively affect small firms' use of AF to finance their operations (Allen et al., 2019; Dowling et al., 2019). Lee and Persson (2016) use altruism to explain family lending. Social values are reflected in many environmental, sustainability, and governance (ESG) projects funded by crowdfunding (e.g., Cumming et al., Cumming, Filatotchev, et al., 2017 & Cumming, Leboeuf, et al., 2017). The borrowers and lenders on the online platform might belong to a group with a shared identity or social purpose.

Riding on the global boom of fintech (finance + technology), extensive literature examines how formal and informal institutions affect the development and role of online financing platforms such as crowdfunding and P2P. These studies cover regulation, social trust, financial development, and infrastructure. Kshetri (2015, 2018) proposes that the success rate of crowdfunding is lower in countries with lower degrees of trust and an authoritarian political structure. Rau (2019), using a unique hand-collected sample of crowdfunding volume obtained by surveying over 2200



crowdfunding platforms worldwide, shows that introducing explicit legal regulation increases crowdfunding volume significantly. The effect is at least partly causal. Crowdfunding volume is, at best, weakly related to social factors such as the country-level generalized trust. Some of the crowdfunding studies focus on particular types of funding purposes. Cumming et al. (Cumming, Filatotchev, et al., 2017; Cumming, Leboeuf, et al., 2017) provide evidence from 81 countries around the world, showing that cleantech crowdfunding is more common in countries with low levels of individualism and more common when oil prices are rising.

A strand of research examines the statistical relationship between national cultural values, often proxied by Hofstede's (1980) four cultural dimensions (collectivism/individualism, power distance, uncertainty avoidance, and masculinity/femininity) and business practices, including debt financing, earnings management, and accounting practices. El Ghouli and Zheng (2016), controlling for firm and industry characteristics, find that trade credit provision is higher in countries with higher collectivism, power distance, uncertainty avoidance, and masculinity scores. Profit reinvestment is an important internal financing source that is often missed in the formal financial system consideration. Therefore, retained earnings are arguably also a type of *alternative* financing. El Ghouli et al. (2016) examine the role of national culture in the profit reinvestment decisions of small firms in emerging markets. They find that Schwartz's cultural dimensions of Embeddedness and Hierarchy negatively impact profit reinvestment. Family businesses are prevalent worldwide, but their organizational forms, management styles, and performance differ across countries. The differential effect is likely embedded with cultural and family value differences across countries. Using meta-analytic and archival data, Berrone et al. (2020) develop family business legitimacy and an associated index for 83 countries, finding that family businesses are more popular, mature, and perform better in countries with high family business legitimacy scores.

## Future research

Alternative finance continues to evolve with technological advancement and social/business development. Both new and conventional forms of AF are expanding. The adoption of technology in finance dramatically expands the network concept and its role in financing. Consensual network-based financing, such as insider debt and joint ownership of equity and debt (e.g., Cassell et al., 2012; Chava et al., 2019; Jiang et al., Jiang, Lee, et al., 2010 & Jiang, Li, et al., 2010; Sundaram & Yermack, 2007) is also emerging among formal institutions, changing the landscape of financial markets. Future research will aim to understand the essential mechanisms of

AF to facilitate practices and regulations so that the development of the fintech industry can be aligned with economic growth, stability, and sustainability. Moreover, the increasingly globalized world is experiencing a contraction due to geopolitical tensions, imposing new challenges to IB and international AF. These new developments influence AF's cross-border aspect as well as its comparative aspect. A rich field is yet to be explored to better understand AF in the IB context and the internationalization of AF.

## Technology and its revolutionary impact on finance and the global financial system

Every wave of technological advancement brings enormous changes to society. The advancement of internet technology and big data capacity, alongside their applications to the finance industry, have caused a fundamental evolution in the financial sector. Technology infrastructure is essential for AF based on virtual networks. The expansion of data capacity could significantly improve formal institutions' ability to assess small and young firms, making AF's informational advantage diminish in a relative sense. As a result, the collateral advantage and incentive advantage of AF could become more important. Moreover, the sweeping, web-based technological changes since the 1990s have not only led to a tremendous revolution in financing forms but have also made all kinds of transactions, including cross-border transfers, faster and broader. It will be interesting to examine all of the implications of these changes in the IB context.

With fintech development, many new services and products have emerged, from online financial services to lending platforms and wealth management products promoting the shared economy. It has spurred the creation of a variety of finance tools in wealth management, covering real estate, investment advisory, insurance, and so on. These tools not only create convenience but also improve efficiency in terms of information-sharing and resource allocation. These effects are yet to be rigorously analyzed.

The influence of fintech goes beyond technological applications to financial services, creating more convenience in online banking and digital payments, leading to fundamental changes in many concepts and practices. Person-to-person lending platforms, crowdfunding, and fundraising through coin issuance particularly stand out (e.g., Cong et al., 2022; Howell et al., 2020; Rau, 2019). They are AF based on a new concept of online networks reaching a vastly extended social community. Groups of capital providers and fundraisers complete transactions through online platforms without a traditional intermediary institution. Person-to-person lending occurs via auctions or price posting (Duarte et al., 2012; Lin et al., 2013). Crowdfunding occurs in equity or fixed advancement forms (Kshetri, 2015). Minibonds issuance by small and medium-sized



enterprises through online platforms (we count this form as being part of AF) is also emerging. The fintech trend is clear, while many of these developments are yet to be observed and understood. Academic research can contribute to this process by providing a systematic framework to further our understanding.

The widespread and fast adoption of fintech has also greatly improved financial inclusion, creating value for households and investors. Much of its effect remains to be examined. For example, new players like digital payment providers entered into the financial industry. Many of them emerged as technology firms, but later became financial service providers and finally financial intermediaries (Allen, Gu, et al., 2022, Allen, Qian, et al., 2022). The Ant Group (formerly known as Ant Financial) in China is an excellent example of this overarching transformation, which regulators and policy makers were slow to catch up with (Li & Qian, 2023). How regulators react to these fast changes in alternative financial institutions is a critical question.

Cryptocurrency is another fast-growing product where regulators were too slow to respond, which has already resulted in large losses for investors and shocks to financial markets (e.g., the bankruptcy of USD \$30 billion FTX in 2022). This is particularly relevant for AF because vast amounts of capital have been raised through the issuance of coins and tokens. The Central Bank Digital Currency (CBDC) is arguably the most promising digital currency, given the nature of money and the incumbent advantages of central banks. Many countries are experimenting with CBDC adoption. A series of challenging issues remain to be resolved: (1) Given the disintermediation effect that CBDC carries, it, to some extent, competes with conventional financial institutions. Where is the boundary for CBDC disruption to financial institutions' payment and intermediation roles? Does the alternative financial sector have an advantage in competing for the intermediary role with the traditional financial sector in this disruption? (2) Adopting CBDCs could circumvent the existing international payments system. How does this impact international capital flows? Countries on the cutting edge of CBDC technology will be well placed to discuss the international rules of cross-border payments with CBDCs. How does this impact the dominant power of the United States and USD in the current SWIFT system? When such technological competition in finance inevitably becomes a global political issue, what opportunities and drawbacks will AF face? There are few studies from a global political economy perspective of these critical issues related to potential changes in the global financial landscape due to CBDCs. (3) How do these global financial landscape changes impact cross-border financing, AF, and international business regarding global supply chains, resource allocation, human capital movement, investment, risk control, and the diffusion of technology, culture, and

institutions? This is a vast field at the intersection of AF and IB that urgently needs to be understood.

## The cross-border aspect of AF in the IB context

Questions like whether and how AF is used in firms' internationalizing; how it affects the internationalization process, governance, and entry mode; and how existing theories on IB, AF, and internationalization integrate are essential for the cross-border aspect of AF in the IB context. Unfortunately, the IB literature so far is surprisingly silent on these issues. We elaborate three categories of potential research questions on this aspect below.

### AF in MNCs

Raising capital is one of the most critical issues in modern firms' entry, survival, and expansion. The question becomes even richer for MNCs, as they face capital endowment conditions of both their home country and subsidiary countries. Surprisingly, we know little about how the mode of raising capital through AF in MNCs differs from that of firms in one space. The question here is how MNCs develop their financing strategy in response to exposure to multiple locations with institutional gaps in investor protection, contractual environment, financial market developments, legality, and so on. The choice and strategy for AF may also be related to MNC product market power, local business networks, and currency choices.

We pose the following questions: Do subsidiaries of MNCs adopt different trade credit terms in response to the local institutional environment or market competition? How do parent firms' AF practices affect practices in international subsidiaries? How do the financing choices in subsidiaries, such as private debt, equity, or internet financing, differ across countries due to the financial market development in the host country and subsidiary locations? How do the institutional gaps impact subsidiary financing and the internal capital market in the MNC? These questions, to some extent, relate to internationalization strategy in terms of developing stakeholders. Unfortunately, we failed to find studies on AF along these lines.

Gaur et al. (2022), using data on Korean MNCs, show that the host country's high societal trust and strong formal institutions jointly reduce the incidence of expatriate staffing in foreign subsidiaries. Cumming et al. (Cumming, Filatotchev, et al., 2017; Cumming, Leboeuf, et al., 2017) show how political connections as an informal institution shape the economic value of foreign ownership and foreign directors in the IB context. Wan et al. (2008) find that Japanese banks with strong social relationships benefit from internationalization during a domestic macroeconomic expansion. Studies of this nature have not addressed AF.





## Cross-border transactions and internationalization of AF

A strand of finance literature examines cross-border capital flows and transactions, mainly covering formal financing channels such as firms' cross-listing, cross-border mergers and acquisitions (M&As) and leveraged buyouts (LBOs), international bonds issuances, loan syndications, and investments by global institutional investors (e.g., Cao et al., 2015; Esty & Megginson, 2003; Licht, 2003; Megginson et al., 2013; Renneboog et al., 2017). However, there are limited studies on cross-border AF transactions and strategies. The closest to this line of research is literature that touches on how informal institutions and formal institutions interact, where overseas social networks play an important role for MNCs in gaining formal financing or making cross-border investments. For example, the informal institution legacy through overseas Chinese communities positively influenced the likelihood and volume of contemporary inward Foreign Direct Investments (FDI) in China (Zhang, 2022), and across the board, the use of short-term versus long-term debt (Li et al., 2011).

We expect to find, at least, some studies on how trade credit is used in international trade, as there is a rich set of straightforward questions. For example, how do institutional gaps in capital endowment, financial market development, culture, currencies, and so on, impact the usage and terms of trade credit in international trade? How do industry- or country-level market powers in the global supply chain, trade barriers, political risk, and currency fluctuations impact cross-border trade credit? Could cross-border transactions be used to lower costs, expand markets, or hedge international risks? Again, we find these areas surprisingly lacking research. The answers to these questions will, to some extent, relate to firm internationalization strategy, at least for the product market or supply chain aspects.

The Ocean Cleanup, founded by Boyan Slat in 2013, is an outstanding example of how a virtual network allows crowdfunding to go cross-border and borderless. A non-profit organization aiming to develop advanced technologies to clean up plastic in the world's oceans, it raised US\$2.2 million through a crowdfunding campaign with the help of 38,000 donors from 160 countries. Although most crowdfunding is more or less built on virtual networks with specific common ground in profession, society, or interests, the members are often located in different countries. What factors promote or hinder such cross-border transactions? What mechanisms are behind these virtual networks? There are many questions like these that remain to be examined in the field.

A few studies investigate the impact of international equity or debt financing through formal institutions, for example, cross-listing (Licht, 2003), cross-border M&As, LBOs (Cao et al., 2015), and euro-bonds (Renneboog

et al., 2017), on governance practices and investor-required returns. A large field encompassing international AF and international corporate governance, and their interactions, is unexplored.

## AF and internationalization strategy

Nguyen and Rugman (2015) is one of the few studies that taps into how AF impacts firms' internationalization strategy. Specifically, they explore how internal equity financing (retained earnings and reinvesting are arguably AF) impacts the performance of multinational subsidiaries in emerging economies. They show that over 90% of financing sources in British subsidiaries in the Southeast Asia region come from internal funding and have a statistically significant positive impact on subsidiary performance. This finding might be region-specific, as the AF literature shows high retained earnings as financing sources in Asian firms. We need more studies to gain better insight into the implications of raising capital through AF and the corresponding role of AF in a firm's international strategy. A rich set of questions regarding how financing, especially AF, impacts a firm's internationalization strategy remains to be explored. For example, do firms with particular financing sources gain more advantages when internationalizing? How do AF's informational, collateral, and incentive advantages impact firms' internationalization strategy, such as the entry mode? How do these effects differ across different countries and product markets? Particularly, on the financing and investment sides, do capital endowment in countries and firm financing practices affect their choices of investment channel, management transfer, and so on? What are firms' consequent performance and survival rates, and how are they related to the AF's advantages utilized in the internationalization strategy? Do these patterns differ across countries, industries, or parent–subsidiary country pairs?

A substantial literature addresses how trade credit and production networks impact each other (e.g., Kim & Shin, 2012; Gofman & Wu, 2022; Ersahin et al., 2021; Giannetti et al., 2021), but there is little discussion of IB issues. For example, creating global supply chains is a major consideration in developing internationalization strategies. In addition to expanding through sales with trade credit, firms have incentives to finance disrupted customers to maintain supply chain stability. Trade credit to buyers is suppliers' signal for production commitment in contrast to resource diversion; suppliers have information and monitoring advantages through their network and knowledge; relationship-specific investment through trade credit incentivizes both parties to carry each other through financial distress (Levine et al., 2018). These issues naturally find ways into IB studies because of international trade and are becoming more





complex when geopolitical issues cause interruptions to global production networks and supply chains.

### **Integrating theories on IB, AF, and internationalization**

Developing theoretical frameworks to integrate AF, IB, and internationalization could offer insights into where these topics cross paths, how they influence firm behaviors, and economic consequences when they interact. We propose below several potentially promising approaches.

*Alternative financial systems:* A voluminous literature in IB examines how agents' decision-making in each context forms patterns of interactions and economic equilibria in each corresponding space (Aguilera & Jackson, 2003). Concerning financial systems, an extensive literature has examined the determinants of the U.S./U.K. market-based model versus the Germany/Japan bank-based model (Allen & Gale, 1995, 2000; Beck et al., 2003a & 2003b; Berger et al., 2023; Kwok & Tadesse, 2006). However, these studies have not considered AF's role. Comparing AF with banks and markets in terms of financing capacity, corporate governance, and risk implications could provide a useful framework to explore alternative financial and business systems. The notion of comparative financial systems questions the universal best and is a major step forward for AF and IB. In practice, altruism in family loans remains vital for entrepreneurship, and personal values such as environmental passion in crowdfunding, are becoming increasingly influential (Kshetri, 2015; Lee & Persson, 2016). Intercorporate borrowing in China and chaebol business groups (e.g., Baek et al., 2006; Qian, et al., 2015) are strikingly different. These comparative financial system issues could be further developed in the context of the alternative financial system and their cross-country differences. Although there is a rich literature on IB under comparative business systems, studies on the intersection of AF and IB, that is, how the same AF can achieve different economic effects in different country settings, in addition to how the form and size of AF differ across countries, are few.

*Cross-border arbitrage of AF's advantages:* An arbitrage framework could help integrate AF, IB, and internationalization by connecting IB's contextual nature and AF's risk-return nature. Contextualizing AF values facilitates an understanding of transferal across spaces. For example, Cao et al. (2015) show that international acquisition of assets through cross-border LBOs accesses debt finance from countries with strong credit protection to acquire targets in countries with weak credit protection. This leads to financing synergies from differential creditor rights in the acquirer and target countries and hence allows higher returns. Under an arbitrage framework, identifying such value differences, arbitrage channels, and costs is essential. What are the

generic versus contextual advantages of AF? Which institutions determine the different risks and returns, and how do they accomplish that? Which channels, for example, MNCs or cross-border transactions, facilitate the arbitrages and how? In either channel, globalization and technological advancement have greatly expanded the transaction scope and reduced arbitrage costs. What impacts the information flows? What affects the arbitrage costs and risks? These are essential questions that the theoretical framework should be able to address.

*Information- and benefits-based networks:* Conceptualizing a network based on information and benefits could also help to integrate AF, IB, and internationalization. The essential advantage of AF comes from agent interactions beyond the transactions at concern (Allen, Gu, et al., 2022 & Allen, Qian, et al., 2022), generating various implicit benefits such as reputational collateral in social interactions, relationship-specific investments in business networks, market externality with industry stakeholders, and tax benefits from government stakeholders (e.g., Armendáriz & Morduch, 2010; Brick & Fung, 1984; Kshetri, 2015; McMillan & Woodruff, 1999). All advantages are essentially tied to the information and correlated benefits generated in these interactions.

Institutional investors' coordination to jointly discipline corporate management is a good example of an interest-based network playing a role in finance and management (McCahery et al., 2016). Another illustration is that with the rise of online social media, information flows within virtual networks, such as Facebook friends, can impact economic activities such as trade flows, patent citations, and housing markets. For example Bailey et al. () show that people whose Facebook friends experienced larger recent house price increase are more likely to transit from renting to owning and to buy larger and more expensive houses. This is true irrespective of geographical distance. Finally, implicit benefits often carry long-term or higher purpose considerations such as stakeholder interest, relationship-specific investments or benefits, and market power. Alternative finance through virtual networks expands these informational benefits to a new level. It allows direct access to a mass of people who may share similar interests and values, but were previously segregated by physical, social, or country choices. Such an expansion offers global investment-finance opportunities and connects people through shared value systems.

*Cultural distance:* Conceptualizing distance based on culture, values, and virtual social circles goes beyond the idea of physical distance in terms of business/financial transactions (Beugelsdijk, Ambos, et al., 2018; Beugelsdijk, Kostova, et al., 2018). While search costs rely on information networks, transaction costs are increasingly determined by technological advances in telecommunication, transport, internet, and digital payment facilities. Therefore, the distance between agents does not have to be measured by



physical distance or travel time, but rather by the nodes and links needed for them to be connected by information and interest, transactional facilities, and protections including institutional distance and connection (Berry et al., 2010; Kostova et al., 2020). Cultural distance is conducive to understanding diversity and how it affects relationships and activities.

## Conclusion

Alternative finance based on social, business, and virtual networks has informational, collateral, and incentive advantages. Academic studies have evolved from a substitution perspective, to a complementary view, and finally to a competitive views on AF's role compared to conventional financing through financial institutions and markets. Existing studies on AF in the IB context mostly take a comparative perspective along the dimensions of financial development, corporate governance, and national culture. With fast advancing technologies and global geopolitical tensions, AF is evolving in its forms and values, as well as facing more complex challenges in the international context. Rich academic fields are yet to be explored focusing on these new developments; the cross-border aspect of AF in the IB context; and integration of theories on AF, IB, and internationalization.

## Appendix A1: The number of studies on alternative finance published in the top three finance journals and the *Journal of International Business Studies*

We thoroughly searched the full text of articles in the top three finance journals, *Journal of Finance* (JF), *Journal of Financial Economics* (JFE), and *Review of Financial Studies* (RFS), as well as *Journal of International Business Studies* (JIBS), for studies on alternative finance (AF) on their websites, and supplemented with JSTOR and Science Direct. We report the counts in Table A1. We group the studies by theoretical works (Panel A) versus empirical works (Panels B and C), then single-country sample (Panel B) versus cross-country sample (Panel C) for the empirical works. Other than trade credit, there are too few studies on AF published in the top three finance journals compared to its significance in the world economy, especially for family lending, microfinance, and online financing platforms. While JIBS provides the most international studies on AF, the number is small and the articles predominantly focus on the comparative aspect.

Types of alternative financing channels	JF	JFE	RFS	JIBS	Total	Multiple Countries/ Total
<i>Panel A: Theoretical studies and literature reviews</i>						
Family and relatives	0	0	1	0	1	
Microfinance/rotating savings/joint collateral	0	0	1	1	2	
Angel finance, private equity/debt	2	0	1	0	3	
Trade credit	5	2	4	0	11	
Business group/inter-corporate finance	2	1	1	0	4	
Insider debt/equity (exclude retained earnings)	0	1	0	0	1	
Informal/nonfinancial financial institutions	1	0	1	0	2	
P2P/crowdfunding	0	0	1	0	1	
Coin/token issuance	0	3	0	0	3	
Subtotal	10	7	10	1	28	
<i>Panel B: Empirical works: Single-country sample</i>						
Family and relatives	1	1	1	0	3	
Microfinance/rotating savings/joint collateral	0	1	2	0	3	
Angel finance, private equity/debt	0	4	0	0	4	
Trade credit	15	8	8	1	32	
Business group/inter-corporate finance	8	6	4	0	18	
Insider debt/equity (exclude retained earnings)	1	1	2	0	4	
Informal/nonfinancial financial institutions	2	4	4	0	10	
P2P/crowdfunding	0	1	2	0	3	
Coin/token issuance	0	0	0	0	0	
Subtotal	27	26	23	1	77	
<i>Panel C: Empirical Works: Multiple-countries sample</i>						
Family and relatives	0	0	1	2	3	0.50
Microfinance/rotating savings/joint collateral	1	0	0	1	2	0.40
Angel finance, private equity/debt	0	1	0	2	3	0.43
Trade credit	2	2	1	3	8	0.20
Business group/inter-corporate finance	2	1	1	3	7	0.28
Insider debt/equity (exclude retained earnings)	0	0	0	0	0	0.00
Informal/nonfinancial financial institutions	0	1	0	0	1	0.09
P2P/crowdfunding	0	0	0	0	0	0.00
Coin/token issuance	0	0	2	0	2	1.00
Subtotal	5	5	5	11	26	0.25



Types of alternative financing channels	JF	JFE	RFS	JIBS	Total	Multiple Countries/ Total
Total	42	38	38	14	131	0.20

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