Secretariat Briefing Paper 3

INNOVATION FOR INCLUSION:

USING DIGITAL TECHNOLOGY TO INCREASE FINANCIAL AGENCY AND PREVENT MODERN SLAVERY

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LIECHTENSTEIN INITIATIVE
FOR A FINANCIAL SECTOR COMMISSION ON MODERN SLAVERY AND HUMAN TRAFFICKING

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ABOUT THE BRIEFING PAPER SERIES

This is the third in a series of Briefing Papers prepared to inform the deliberations of the Financial Sector Commission on Modern Slavery and Human Trafficking.

The first paper – James Cockayne and Julie Oppermann, "Financial Sector Compliance to Address Modern Slavery and Human Trafficking" (New York: United Nations University, 2019) – was made available prior to the first meeting of the Commission in New York in September 2018. It provided a basic introduction to the ways in which the financial sector encounters and relates to modern slavery, forced labour and human trafficking, and considered the compliance issues raised for different actors in the sector. These include anti-money laundering and counter-terrorist financing (AML/CFT) compliance concerns and compliance with emerging anti-slavery supply chain transparency frameworks.

The second Briefing Paper – David Kovick and Rachel Davis, "Tackling Modern Slavery and Human Trafficking at Scale through Financial Sector Leverage" (New York: United Nations University, 2018) – was prepared for the Commission's second consultation in Liechtenstein in January 2019. It focused on responsible lending and investment practices, exploring the guidance, tools and solutions available to financial sector actors seeking to lend and invest in ways that reduce modern slavery and human trafficking risks. The paper examined how the UN Guiding Principles on Business and Human Rights provide a framework for financial sector action on due diligence, leverage and remedy.

This third Briefing Paper, prepared in advance of the Commission's third consultation in Sydney, Australia, focuses on how financial innovation may help prevent modern slavery and human trafficking. It discusses the connections between financial exclusion and vulnerability to modern slavery and human trafficking, and explores how innovation in both technology and products can help address these risks by transforming the choices available to debtors and workers. It closes with some reflections on how the financial sector may help to foster innovation for financial inclusion and agency that can help to prevent modern slavery.

INTRODUCTION: FINANCIAL EXCLUSION AND MODERN SLAVERY RISK

There is growing evidence that lack of access to safe and affordable financial products and services heightens the risk of modern slavery and human trafficking.[1]

At the individual and household level, the lack of access to credit can create vulnerability from cashflow shocks such as medical emergencies, natural disasters and unplanned life events such as weddings, dowry payments or funerals. The financial crises these shocks generate can wipe out household assets and trap families in poverty – or even bonded labour, as households are drawn into unsafe labour and debt arrangements, as a coping strategy.[2]

Take health emergencies: roughly 100 million people globally fall into extreme poverty every year due to out-of-pocket health expenses,[3] which can heighten risk to modern slavery.[4] Although healthcare insurance coverage is less likely in developing countries than developed countries,[5] Polaris has documented how lack of access to affordable healthcare insurance contributes to pathways into sex trafficking in the United States.[6]

Lack of access to finance may also multiply modern slavery risks at the firm level, especially in times of cashflow or other financial crises. Micro, small and medium enterprises' (MSMEs) lack of access to supply chain finance and credit to assist with inventory, payroll, capital investment and other costs may lead them to substitute coercion for wage costs. Debt bondage – one of the most prevalent forms of modern slavery – involves just such a substitution of coercion for fair pay and is itself a kind of distorted credit offering. Workers usually succumb to debt bondage because an employer is the only or primary source of credit, allowing the employer to combine monopsony power in the labour market with monopoly power in the credit market, to trap the worker into bonded labour.[7] Improving MSME access to credit may help reduce this credit monopoly/labour monopsony nexus, reducing forced labour risks overall by enlarging the choices available to workers and debtors.

All of this suggests that increased individual, household and MSME access to regular and safe finance, free from coercion, has the potential to help prevent modern slavery and human trafficking. Financial inclusion and financial agency reduce vulnerability to enslavement. When individuals, families and firms are able to save and move money safely and have access to affordable credit and insurance services, they are better positioned to protect themselves from economic shocks, build assets, and invest for the future.

At the same time, enlarging financial inclusion may have systemic benefits. Integration into the financial system moves risk from the individual level – where it multiplies vulnerabilities and leaves risks unaddressed – to the systemic level, where risks can be socialized, diversified and better managed down.[8]

Since a series of studies by the World Bank around 15 years ago, culminating in the 2008 World Bank Annual Report *Finance for All*, financial inclusion has, for these reasons, been seen as a central part of the global development system's efforts to build inclusive markets.[9] The opportunity here – including for businesses that seek to participate in the expansion of financial markets – is significant: according to the World Bank, around 1.7 billion people struggle to get by without the basic financial services they need to protect themselves against hardship.[10] The McKinsey Global Institute estimated in 2016 that 200 million MSMEs in emerging economies lacked access to savings and credit.[11] The IFC estimated there was over USD 5 trillion worth of unmet MSME demand for credit in 2015, partly due to a lack of credit history or collateral.[12]

Although the situation of large-scale financial exclusion is improving – with 515 million adults having gained access to financial services between 2014 and 2017 – the problem remains. And it remains greatest in populations that are also known to already have heightened vulnerability to modern slavery and human trafficking: women, the extremely poor, migrant workers and forcibly displaced people (FDPs).

Women make up 59 per cent of the unbanked, and women and girls make up 71 per cent of the estimated global modern slavery population. In countries where vulnerability to modern slavery is relatively high, women are comparatively likely to be financially excluded. In Nigeria, a woman is 32 per cent less likely than a man to own a formal bank account; in Bangladesh, 41 per cent. Globally, 39 of the poorest 40 per cent of households lack a bank account, making it nearly impossible for them to accumulate savings or establish a financial history to access other financial services.[13] Migrant workers, and especially FDPs, have limited options to safely store money, build up savings or send and receive money, and simply carry out everyday life transactions. Indeed, access to the financial system is so central that Nobel laureate and Commission Co-Convenor Muhammad Yunus has suggested that access to credit itself ought to be considered a human right.[14]

Yet the anti-slavery argument for expanded financial inclusion is not limited to reducing risks to potential victims: increased financial inclusion targeted at populations that are at heightened risk of modern slavery is likely to also have significant spill-over or 'systemic' effects. Consider the case of women's financial inclusion. Even low-income women save ten to fifteen per cent of their earnings, and their balances do not fluctuate as much as those of men – a reliability valued by banks.[15] Banks are increasingly recognizing that women are a promising and largely untapped client base that can fuel business growth.[16] And the digital revolution in finance is further accelerating these gains, and in the process reducing the financial gender gap. In India, for example, the introduction of a groundbreaking digital and biometric national ID system – Aadhaar – has helped reduce the account-holder gender gap from 20 per cent in 2014 to just 6 per cent in 2017.[17]

Or take migrants, especially forcibly displaced people (FDPs): access to safe and affordable financial services not only helps FDPs navigate their displacement, but also facilitates their economic participation in host communities, and can promote local market stability.[18] Research by the International Rescue Committee has identified a clear business case to expand e-payment services in crisis-prone areas based on positive returns.[19]

The question, then, for the Financial Sector Commission on Modern Slavery and Human Trafficking, is how financial innovation can be encouraged in directions that will most rapidly reduce modern slavery and human trafficking risk. In this Briefing Paper, the Secretariat explores how financial sector innovation that promotes inclusion – bringing new consumers into financial markets and strengthening their economic agency once connected to those markets – can contribute to modern slavery prevention.

The focus of this Briefing Paper is on technological and product innovation for financial inclusion and agency, rather than innovation in compliance or investment decision-making – topics touched on in Briefing Papers 1 and 2, and the subject of ongoing deliberation by the Commission.

1. UNLOCKING VALUE: RETHINKING FINANCIAL RISK AND RETURN IN AT-RISK POPULATIONS

Why do these populations lack access to safe and affordable financial services? The basic reason is that the financial system traditionally determined that servicing these populations offered an inadequate risk:return ratio – that these markets were, in other words, insufficiently profitable. Financial exclusion was a social construct, a result of the way that the global financial system chose to operate.[20]

Women, migrant workers, FDPs and the poor were traditionally seen as lacking access to sufficient collateral to warrant the extension of credit or other financial services. These populations' limited access to regular ID documents has also worked against them in recent years, as Know Your Customer rules (and related Customer Due Diligence) have tightened under pressures arising from the anti-money laundering (AML) and counter-terrorist financing (CTF) regime. Similarly, traditional insurance carriers assessed the value available from these markets as inadequate to cover costs.

Almost forty years of learning from the world of microfinance pioneered by Commission Co-Convenor Muhammad Yunus has, however, led to a rethinking of this analysis. Microfinance has grown significantly from its humble beginnings in the Grameen Bank in the late 1970s: in 2018, there were at least 111 commercial 'microfinance investment vehicles' (MIVs) – financial institutions that lend to microfinance institutions (MFIs), primarily located in emerging and frontier economies, to access debt and/or equity financing.[21] The global MFI loan portfolio is now estimated at USD 114 billion, reaching 139 million low-income clients, 83 per cent of whom are women.[22] Over the last decade, as development policy has shifted focus from microfinance to 'inclusive finance', offerings have expanded, from savings products to microcredit and microinsurance, which complement social protection systems by enabling vulnerable families to hedge against part of the risks they face.[23] And microloans are now regularly securitized – packaged into liquid securities that can be traded on financial markets.

What this makes clear is that there *is* profit to be made from offering financial products and services to populations traditionally excluded by the global financial sector. [24] Poor people, living with the reality of risks, are frequently highly financially innovative, juggling multiple formal and informal financial instruments.[25] In fact, financial market-builders have studied their practices closely to learn how to tailor products and services to meet their needs and unlock new value. [26]

As these populations are 'included' in global financial markets, vulnerability to modern slavery and human trafficking should also fall over the medium- and long-term as individuals, households and firms build wealth and financial resilience increases.

How financial inclusion may *increase* modern slavery risk

While there are good reasons to believe that financial inclusion should, over time, help to prevent modern slavery, there is also some evidence that under certain conditions access to microfinance can in the short term increase the risks of child labour. There are two main reasons it has this effect: first, because access to credit fosters household enterprise;[27] and second because, in some cases, access to credit may actually facilitate participation in trafficking.[28]

It may also create other risks. There have been cases where undue pressure from microfinance agents to repay cumulated microfinance

debts, even through accessing life insurance payouts, have led to a loss of debtor agency – and even a loss of life. In 2010, over 70 microdebtors in Andhra Pradesh, India, committed suicide, allegedly after just such excessive pressure.[29]

In some contexts, the loans that MFIs issue may be used to service their consumers' bonded debts to third parties. MFIs may be doing this unwittingly. But they may also do it wittingly, for example through debt swaps that buy out high-interest and unfair debts and replace them with safer debt arrangements. The danger here, of course, is that this perpetuates a market for bonded debt,[30] encourages illegality and may create liability for the financial institutions involved.

Additionally, MFI offerings that target groups demonstrating particular vulnerabilities – such as vulnerability to modern slavery – while refraining from providing financial services to the communities they are embedded in can exacerbate inter-group tensions. This may deepen discrimination or, in other ways, unintentionally heighten modern slavery risk.[31]

Clearly, this suggests a need to carefully study the dynamics of interaction between financial market inclusion and modern slavery, to guide the design of both product offerings and regulatory environments.[32]

The lessons from microfinance of the last four decades are now being embedded in another revolution that is transforming global financial markets – the digital revolution. The arrival of digital payments (including mobile money), biometric IDs, digital wallets and smartphone technologies is reshaping cost structures and business models. It is also transforming financial actors' assessment of the risk:return ratio from offering financial products and services to formerly excluded populations. This digital transformation is unlocking massive value and creating positive spill-over effects throughout the global economic system.

How digital finance can unlock economic value

In 2016, the McKinsey Global Institute estimated that widespread adoption and use of digital finance could increase the GDPs of all emerging economies by 6 per cent, or a total of USD 3.7 trillion, by 2025 – the equivalent of adding a Germany-size economy, or one that's larger than all the economies of Africa, to the global economy. This, in turn, would generate up to USD 110 billion per year in savings and new revenues for governments, enlarge financial institutions' balance sheets by USD 4.2 trillion in deposits and USD 2.1 trillion in credit, and generate up to 95 million new, safe jobs across all sectors of the economy – a powerful strategy for preventing modern slavery. In Kenya, the spread of mobile money lifted two per cent of the population, or one million people, out of extreme poverty between 2008 and 2014.[33] Importantly, lower-income countries where modern slavery risks are high – including countries such as India and Nigeria – seem to have the most to gain, with potential GDP growth of 10 to 12 per cent.[34]

In this section, we explore how innovation in technology and products is transforming the global financial system, and how this offers opportunities for modern slavery prevention.

A. Innovation in identifying, evaluating and managing new clients

Digital technologies lower the costs for financial actors to find and access potential consumers. Mobile phones and widespread internet access have provided almost zero-cost access, and digital payments lower the cost of sending and receiving money and credit.[35] This is particularly important for the inclusion prospects of the extremely poor, migrant workers, FDPs and other populations affected by disaster. There has recently been a proliferation of digital payment offerings to these populations, ranging from the use of pre-existing mobile money and smart cards to new outfits such as JUMO (an African-based digital bank) and Pintail (a Swiss neobank servicing migrant communities).[36] In humanitarian contexts, there is growing evidence that households with access to such services recover faster than those lacking such access.[37] This presumably reduces their risk to trafficking.

AI-powered chatbots are also reducing the cost of matching demand and supply for financial services, by learning how to market products more effectively to consumers. TôGarantido, Brazil's largest online microinsurance broker, uses machine-learning powered chatbots to conduct sales, learning over time what messaging approach is most likely to match consumers to product placement.

Digital innovation is also transforming how financial institutions discharge 'Know Your Customer' (KYC) and related Customer Due Diligence (CDD) obligations once they find potential clients. There is growing use of digital IDs, ranging from the biometric-based, state-backed Aadhaar in India, to the centralized digital client onboarding solution provided by Indonesia, to solutions designed specifically for those who may not have access to state-backed IDs, such as the ID2020 initiative[38].

Digital platforms are also underpinning new credit risk scoring techniques, relying primarily on alternative, especially online behavioural, credit scoring models. Big data innovators are using mobile phone usage, social media activity, and browser history data to help establish creditworthiness for low- and middle-income consumers in emerging markets. Since only 31 per cent of the global population is covered by traditional credit bureaus, new approaches to credit-scoring may prove fundamental to accelerating financial inclusion. Some providers, such as Zest[39] in India, Mimoni[40] in Mexico, and Tala[41] in Kenya, India, Mexico, the Philippines and Tanzania rely exclusively on smartphone data to provide real-time credit decisions, regardless of applicants' credit history. In a pilot study in the Dominican Republic, one-third of low-income women who were previously rejected for loans were considered creditworthy using alternative data and a gender-differentiated credit scoring model.[42]

The same logic applies to MSMEs: when they digitize their own supplier and payroll payments, they start generating data that can be used for credit scoring.[43] In Africa, Kopo Kopo uses electronic transaction history to assess the creditworthiness of MSMEs and grant them short-term loans.[44] Indifi offers similar services in India.[45] And elsewhere in Asia, Ant Financial and MYbank have used digital payment transaction data to underwrite more than USD 70 billion in cumulative loans to five million MSMEs since 2015.

At the same time, payment digitization brings collateral benefits to MSMEs: it can significantly reduce administrative costs and increase productivity by reducing the time workers have to spend away from productive activity. And the data generated may also help reduce vulnerability to modern slavery for workers in MSME supply chains, by creating new opportunities for financial risk monitoring and improving workers' financial security and standard of living. Gaining access to a formal financial account, through automated payroll or payment systems, can be the first step toward workers' own financial inclusion.[46]

There are significant opportunities here for modern slavery prevention efforts, for example through sectoral initiatives to promote digital payments in risky value chains.

Digitizing worker payments in the apparel sector

In the apparel sector, global brands including Gap Inc. and Marks & Spencer have set goals to ensure workers across their supply chains are paid digitally by 2020. In Bangladesh, H&M, Marks & Spencer, Target, Li & Fung, Lindex, Debenhams, and Fast Retailing collaborate with Business for Social Responsibility, the Bill & Melinda Gates Foundation, local NGOs and mobile financial service providers bKash and Dutch-Bangla Bank Limited (DBBL). The project has reached more than 100,000 workers, generating 53 per cent savings in administrative staff time, while increasing workers' access to formal financial accounts from 20 per cent to 98 per cent, and for savings accounts from 28 per cent to 43 percent. Female workers' savings capacity was estimated to increase by 69 per cent, and their mobile phone ownership by 91 per cent. And digital payment likely also reduces wage theft, further protecting workers.

B. Innovation in shaping consumer behaviour

Digital platforms also offer new, powerful, low-cost ways to transform consumer behaviour, notably towards increased savings rates. In India, rural communities that stored income in a digital bank account rather than keeping cash at home increased household savings by 131 per cent within three months.[47] AI-powered chatbots can cultivate financial literacy and nudge consumers towards sustainable financial behaviours. In Colombia, financial services startup Juntos worked with Bancolombia to help improve savings via SMS-based, targeted customer engagement, increasing account balances by 50 per cent and activity by 32.5 per cent.[48]

There are some signs these technologies could be used to steer workers and consumers towards behaviours that reduce modern slavery risks. Different products are emerging for different market segments: market traders and MSMEs who want business training, factory workers who want help managing their finances, and small-scale farmers who want to learn about different microinsurance products. Some of these openings may provide the opportunity for development of AI-powered systems that nudge consumers away from behaviours that increase modern slavery risk. In India, digital payment systems have been used to bring down education costs, nudging households towards sending children to school, rather than engage in child labour.[49] In Burkina Faso, users of mobile money were three times more likely than non-users to save for unpredictable events and health emergencies, helping generate financial resilience and reduce vulnerability to modern

slavery.[50] And in Tanzania, when women were given access to M-Pawa (a phone-based savings system), they saved three times more than women without such access – a rate that increased to five times when combined with business training.[51]

C. Product and business model innovation

Digital platforms are also generating product innovation and underpinning the emergence of new financial service business models that may have direct relevance to modern slavery prevention efforts.

Neobanks. Increasingly we see entirely digital financial institutions, such as Tala, Mimoni and Zest (the online lenders mentioned earlier) or Tez[52] – a fully digital MFI in Pakistan.[53] These organizations have different cost structures and may be particularly useful for populations at high risk of modern slavery, because of the limited need for upfront capital investment in physical outlets. In Tajikistan, for example, where 40 per cent of households depend on money transfers from families abroad, a pilot project between the UN Development Programme (UNDP) and BitSpark uses a blockchain-powered mobile app to radically reduce remittance fees.[54] In Serbia, UNDP has worked with AID:Tech Ltd and the city of Niš to channel diaspora remittances into local development, in the process creating digital IDs that can be used for other money transfers.[55]

InsurTech. The microfinance revolution started with banking services but evolved in time to include the provision of microinsurance, now available all over the world.[56] Nonetheless, access to insurance remains low: across sub-Saharan Africa, for example, it is estimated to cover only around 5.4 per cent of the population (approx. 61.9 million people).[57] Digital technology offers new approaches,[58] changing the cost structure of search, risk assessment, underwriting and claims in ways that are expanding inclusion. AXA has developed automated claims processes relying on WhatsApp and WeChat, and the rapid spread of digital wallets – particularly in Asia – is also facilitating micro-payments.

P2P risk mutualization. Digital technology is also making feasible the profitable scaling of old business models, such as peer-to-peer insurance (P2P) – a collaborative model that brings together insurance customers to share the risk, pool their capital and self-administer insurance. The Chinese platform TongJuBao, for example, forms social communities that pool guarantee deposits to mutualize risks not typically covered by insurance carriers, including divorce and child abduction.[59] It is not impossible to imagine a P2P insurance offering targeted to high-risk populations that would pay out a fixed sum to survivors of modern slavery once they have escaped enslavement, to assist with economic rehabilitation and recovery.

Digital marketplaces. Providers such as Tulaa, which operates primarily in Africa, use digital technology to combine supply chain financing, advisory services and market-making, strengthening market access for MSMEs and smallholder farmers.[60] Participation by vulnerable communities in digital marketplaces and ecosystems may help generate stronger market transparency in multiple ways, strengthening worker and debtor agency through informed choice.

Smart contracts.[61] There is also a rapid move into smart contracts to automate payouts in insurance contracts, without the need for a claims process – instead relying on trusted third-party data providers to trigger payments. In Australia, the national research lab Data61 and the Commonwealth Bank have used smart contracts to underpin payments in a new national disability insurance scheme[62] – an idea that might be adaptable to conditional payment environments relevant to other exogenous shocks that generate modern slavery risk – such as weather-related events.

Towards slavery-preventing agricultural micro-insurance

IBISA, a risk-sharing service incubated in Luxembourg that operates in India and Niger, provides P2P insurance against crop failure and livestock losses. Payouts are based on automated event triggers assessed through the use of satellite data, and the system operates through a blockchain-based network.[63]

Similarly, US-based WorldCover provides simple and affordable crop insurance to around 20,000 farms in Ghana, Kenya and Uganda via a smartphone app. Premiums range around USD 20 to USD 50. The system uses high-resolution satellite images to detect rainfall and plant growth data, machine-learning powered analysis and blockchain technology to automate payments.[64]

In Sri Lanka, Oxfam, Aon and Etherisc have also combined microinsurance and blockchain to cover smallholder paddy field farmers.

Distributed ledger technologies and traceability. Blockchain and other distributed ledger technologies revolutionize the traceability of product and service inputs, particularly through improvements in Chain of Custody ("CoC").[65] Traceability is particularly important in commodity markets, where goods are admixed and traded in markets, not delivered through integrated, vertical supply chains from a producer up to a single buyer. This is important for commodity value chains in which slavery has at times been present – including sugarcane (and ethanol), fish, minerals, and soya beans. Improved CoC information will allow consumers, retailers and financial institutions to avoid links to transactions that have high modern slavery risks.

Existing technologies have constrained implementation of international guidance, such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.[66] Blockchain-based solutions may alleviate this constraint. In the UK, for example, Provenance uses Ethereum-blockchain technology to improve accountability and transparency of supply chains so that consumers, retailers and others have more information about a product's environmental and social impact.[67] In time, blockchain-based commodity-tracing systems may generate a *de facto* standard that financial institutions could adopt to limit risky producers' access to finance.[68]

Strengthened traceability may also allow the development of a 'shadow pricing' model of modern slavery: a revelation of the currently difficult-to-calculate cost of removing slavery (or slavery risk) from delivery of a product or service. Stronger traceability data would allow the performance of deeper hedonic pricing analysis (identifying the costs associated with characteristics of goods or services through regression analysis).[69]

Distributed ledger technologies and digital ID. Blockchain and other distributed ledger technologies are also central to the emergence of digital ID products that are fostering financial inclusion. BanQu is using distributed ledger technology to enable those traditionally excluded from finance to build secure, immutable and durable economic identity records.[70] Sierra Leone is also piloting a national blockchain-based credit bureau, using digital IDs, developed by UNDP, the UN Capital Development Fund and Kiva, which is specifically designed to accelerate financial inclusion.[71] A central issue here, however, is the need for regulators to ensure that digital IDs are permissible for KYC purposes.

2. INNOVATION FOR ECONOMIC AGENCY AND VOICE

As Kevin Bales explained, modern slavery treats humans as "disposable people" – commodities to be exploited, used up, and thrown away.[72] At the heart of this condition is the denial of human agency and voice – workers are reduced to chattel-like status, to be milked for profit until exhausted. This is an extreme form of economic, social and political exclusion – with human beings denied agency and voice in their own lives, and in the life of local and global markets. Debt bondage, for example, achieves this outcome by combining the monopsony labour power of the employer with monopoly credit-issuing power. Coercion and violence keep that power in place.

In this section, we explore how a new generation of digital innovations is focused on fostering economic agency and voice – precisely to ensure individuals do not fall into such powerlessness that they become victims of modern slavery; and the role of investors and donors in shaping innovation in this space.[73]

A. The state of innovation

Smart contracts for migrant workers. Migrant workers are frequently vulnerable to exploitation. Once they leave home, they are at a significant power disadvantage and can more easily be coerced into exploitative working arrangements. Corrupt government officials in host state countries may acquiesce in or participate in this variation of terms and resulting exploitation.[74] One initiative, Handshake has sought to address this vulnerability by reducing contracts signed with labour brokers to a coded token that would be stored on IPFS (a decentralized internet system), connected to an Ethereum (distributed ledger) smart contract. This would make the labour contract immutable and beyond the reach of individual employers or government entities. Moreover, it would increase the economic agency of workers: when they are offered the initial labour contract, they are able to see the terms and conditions, the labour broker and employers' identity and accreditation, and their prior reputation for worker handling.[75]

Worker engagement platforms. As touched on in Briefing Paper 2 for the Commission, there is a ratcheting up of supply chain due diligence and disclosure obligations, through the adoption of Modern Slavery Acts and human rights due diligence legislation around the world. This has created a demand for tools that allow buyers, investors and regulators – as well as consumers – to obtain information directly from workers in order to generate big data on working conditions in complex supply chains. These are frequently referred to as "worker voice" tools. They often involve automated surveys administered through company-run human resources interfaces, or through interactive voice response calls, SMS and related technologies. More complex, visual and interactive modalities are emerging as smartphone ownership and literacy expand.[76] Examples include: Laborlink by ELEVATE,[77] CompanyIQ, &Wider, GeoPoll, IM@Sea, the Issara Institute's Inclusive Labour Monitoring System, Labor Solutions, Symphony by LaborVoices, Ulula and Worker Connect.[78]

These tools are not without their limitations. There are real questions of scalability. At present, such innovations have been implemented primarily in first-tier supply chain worksites, whereas forced labour and modern slavery may exist further down the value chain – especially in informal work settings. And as Bassina Farbenblum, Laurie Berg and Angela Kintominas note, "[a] growing body of research is examining questions around when worker input – both online and offline – constitutes genuine 'worker voice' in that it yields outcomes for workers and transforms power relations within the business structures in which they work".[79]

Importantly, stakeholders have recognized the risks of a "race-to-the-bottom" by technology providers resulting in "poorly designed interventions that fall short of their promise." In December 2017, a coalition of stakeholders adopted the Worker Engagement Supported by Technology (WEST) Principles to "align all actors around a set of design and implementation guidelines that will ensure that technology is leveraged for good", reflecting human rights principles. Zooming in on modern slavery issues, the Issara Institute has also published guidance on digital engagement with migrant workers to fight human trafficking.[81]

Worker information-sharing and organization platforms. Modelled on TripAdvisor or Yelp, several new worker information-sharing platforms have emerged that allow workers to review employers and labour brokers. These include Contratados, Hospo Voice, HourVoice, Issara's Inclusive Labor Monitoring System, Pantau PJTKI, and the ITUC's Recruitment Advisor. In the Philippines, the Philippines Overseas Employment Administration (POEA) in the Department of Labor and Employment has mandated that licensed private employment agencies that recruit domestic workers must maintain an active Facebook page for their business – and these have come to play a similar clearing-house role.[82] These platforms reduce market asymmetries and empower workers, who often lack access to reliable reputational information about potential employers. First-hand accounts from peer migrant workers appear to be more trusted than information provided by governments.[83]

Some of these tools also facilitate collective organization by workers. Examples include CoWorker.org, the government-backed Overseas Filipino Worker Watch (OFWWATCH) and Walmart's WorkIt. These tools raise numerous questions around how they relate to traditional worker organizations, such as unions, as well as issues such as data ownership and protection.[84]

Remedy. Digital tools are also beginning to help workers hold other market actors to account for illegal behaviour and harms caused. Digital tools are helping migrant workers meet evidentiary requirements to succeed in wage claims or to recover funds paid to fraudulent recruiters, by allowing them to safely and securely document hours worked and wages received. For example, the Australian Fair Work Ombudsman's Record My Hours app provides an automated geofencing function, allowing workers to securely and automatically document their working hours at a particular worksite.[85] Digital services also help workers access legal advice and support, and the remedial mechanisms that are often distant from their workplaces.[86]

B. The role of investors and donors in shaping innovation

Scaling these tools to make a real difference in workers' agency and voice, at scale, will require attention to complex issues including:

- data protection and ownership;
- remedy for identified violations;
- regulatory incentives for uptake;
- access to worker data by those workers – both individually and acting collectively through unions;
- strengthening our understanding of what 'effectiveness' means in promoting agency and voice;
- financial protections against defamation and other forms of liability; and
- design.[87]

Investors and donors have a key role to play in shaping innovation in this space. Innovation is currently driven primarily by investors – with only around USD 10 to 20 million invested annually, and most of these new tools still heavily dependent on grants and investments.[88] Donors and investors could:

- drive brand adoption, for example by partnering with brands to drive usage. This will help foster sustainability and reduce rollout costs;[89]
- require new digital initiatives to articulate a theory of change for demonstrating outcomes for workers, while minimizing harm;
- invest in monitoring effectiveness and iterate to reward success;
- support the development of collective standards on migrant worker empowerment and responsible data practices, with a view to integrating these into grant agreements; and
- support the development of legal frameworks compelling companies to invest in effective worker engagement within programs to address forced labor and modern slavery.[90] In Australia, for example, under the *Modern Slavery Act 2018* (Cth), companies will be obliged to demonstrate the effectiveness of their efforts to reduce modern slavery risks in their supply chains. Financial sector actors may have an important role to play in encouraging the increased use of digital tools to promote worker agency and voice and thus demonstrate the effectiveness of modern slavery risk reduction initiatives.

3. LOOKING AHEAD

Financial sector innovation offers significant potential for increased financial inclusion and economic agency that can reduce modern slavery risks. Across the range of innovations discussed in this Briefing Paper, several practical challenges, however, present themselves.

A. Standardization

Scaling up innovation may require standardization in a number of areas:

Data collection standards. Standardization of definitions of types of exploitation, industrial sub-sectors and data collection methodologies would significantly facilitate comparability and interoperability across the digital ecosystems described in this Briefing Paper. The Counter-Trafficking Data Collaborative housed at the International Organization for Migration has begun work in this area,[92] and the newly formed Code 8.7 initiative, convened by United Nations University Centre for Policy Research to bring together computational research scientists and anti-slavery actors, seems likely to further accelerate this work.[93]

e-KYC. What exactly is the regulatory tolerance for using digital IDs and data for KYC and CDD? Numerous governments have moved to encourage use of such digital shortcuts to facilitate financial inclusion. In India, the Aadhaar ID system has underpinned eKYC reforms that have reduced bank account opening times from 7-10 days to one day. By August 2018, over six billion e-KYC requests had been generated.[94] Tanzania has issued biometric IDs to FDPs, which is used for access to banking services, amongst other uses. And countries from Germany to India have mandated financial institutions to grant FDPs, refugees and long-term resident migrant workers digitally facilitated access to financial accounts. Standardization of rules, tolerances and expectations will help create regulatory certainty and foster innovation, while also providing the foundation for at-risk populations' digital economic agency more broadly.

Algorithmic and data bias. Relying on machine learning and artificial intelligence to assess market access and creditworthiness risks perpetuating implicit bias and historical discrimination. Bias may be introduced in various ways. First, it may be unintentionally embedded in assumptions built into algorithms, for example in supervised classification-based and unsupervised reinforcement-based machine learning. Second, it may be present in the underlying data, even if machine learning is unsupervised (as in cluster analysis).[95] Algorithms that are built on datasets that treated certain populations as uncreditworthy – or even suspicious – risk learning and reproducing those assumptions. This could perpetuate, rather than reduce, financial exclusion,[96] and raises a variety of questions about discrimination, negative pressure on freedom of expression online (to avoid negatively impacting credit scores).[97] Innovators may need to work together to determine how to avoid algorithmic bias, and how to generate standardized coding rules, training sets or performance expectations that are sensitive to modern slavery risk – and other human rights concerns.

Worker agency and voice initiatives. As discussed in the previous section, there may be a need for standardization of approaches in worker agency and voice initiatives. These could be modelled, for example, on the principles that have emerged to guide the use of digital payments in humanitarian contexts[98] and build on existing initiative such as the WEST Principles.[99]

B. Investment in infrastructure for high-risk populations

Digital paths to financial inclusion depend on the roll out of digital payment infrastructure and open electronic payment systems.[100] Yet rolling these out to populations that are at particular risk of modern slavery – because they are forcibly displaced, for example – may be especially challenging.

The financial inclusion of high-risk populations may be facilitated by investment in the legal and physical infrastructure that will allow rapid up-scaling of financial participation, particularly in moments of crisis.[101] USAID, for example, recently partnered with Mercy Corps in Mali and the Democratic Republic of the Congo, and with Catholic Relief Services in Somalia, to preposition legal and physical infrastructure for rapid deployment of digital payments. In Lebanon and Jordan, humanitarian organizations supported the expansion of ATMs and point of sale (POS) purchases with iris scan recognition capabilities to serve Syrian refugees. And in Uganda, the International Fund for Agricultural Development (IFAD) partners with PostBank Uganda and Posta Uganda to scale up remittances and financial inclusion to 20,000 refugees.

The Financial Sector Commission may wish to consider how investment in financial inclusion infrastructure for high-risk populations could be fostered.

C. Impact-based anti-slavery funding modalities

Rapid scaling of innovation for financial inclusion preventing modern slavery may be suited to new funding modalities that reward innovations that hit impact targets. These include:

Challenges and prizes. Public prizes have been used for over 400 years to induce innovation. They have enjoyed a recent renaissance, with prizes being used to reward innovations of certain predefined technical standards in fields as diverse as suborbital spaceflight, literacy, oil spill cleaning, and longevity. Challenges work on a similar basis but tend to focus more on spurring collaboration and participation to solve large, seemingly intractable public problems. In the US, the website Challenge.gov has centralized and encouraged prize competitions across 75 government agencies, from NASA to the US Mint, awarding hundreds of millions of dollars of prizes. Prizes

and challenges work because they attract more research & development investment, overall, than the prize is worth, and foster lateral thinking.[102]

ESG performance loans. These loans involve in-built performance incentives – such as reduced interest rates – if the borrower hits identified ESG performance targets. Examples include a recent USD 500 million green "club" loan to Singapore-based Olam International, one of the world's leading food traders, provided by 15 banks with ING operating as the sustainability "coordinator".[103] Modern slavery-related performance outcomes could be embedded in such ESG performance loans, or form the basis for new loans.

Social impact bonds. Related to ESG performance loans, social impact bonds are bond instruments where the proceeds are used to finance social projects.[104] Annual global social bond issuance volume grew by 1,000 per cent from 2014 to 2017.[105] Social impact bonds have been issued in the past for: affordable basic infrastructure (sanitation, clean water, transport, energy); access to essential services (health, education and vocational training, financial services); affordable housing; employment generation, including through microfinance; criminal justice outcomes; food security; and socioeconomic advancement and empowerment. They are often targeted at vulnerable and marginalized groups.[106]

Outcome funds. In this approach, a public investor defines the outcomes it is looking for and pools finance with other social investors to finance multiple impact-oriented funding mechanisms, potentially including impact bonds, simultaneously and in parallel. This allows comparability across funding strategies, learning, long-term institutional strengthening and iteration to achieve results.[107] The Global Fund to End Modern Slavery has some characteristics of an outcome fund.

For all of these funding modalities, however, the central issue is how to measure impact. Impact evaluation at both the programmatic and policy levels remains under-developed in the modern slavery field. A recent review of evidence on modern slavery prevention and responses in South Asia, for example, found that "[s]pecific gaps include the effects of policies on awareness, community-level intervention outcomes, interventions with perpetrators or consumers and industry-level interventions." But it also went on to say that

> "[d]ocumenting existing interventions using innovative evaluation approaches, learning from the literature on behaviour change of other complex socio-economic and political problems combined with funding for implementing and documenting innovative approaches could help to move our understanding of 'what works' to reduce the incidence and prevalence of modern slavery."[108]

Areas that appear *more* promising, in terms of our current ability to measure impact, include financial consumer behaviour; survivor recovery; access to remedy; and, increasingly, local-level prevalence. Impact-based anti-slavery funding modalities based on indicators in each of these areas may be within reach.

D. Partnerships and regulatory innovation

Technological development is shaped by and responsive to the regulatory environment. In thinking through how digital technologies can address vulnerability to modern slavery, it may be important to consider how regulation contributes to these vulnerabilities, and whether regulatory fixes may be preferable to technological ones. In some countries, for example, debt bondage is entrenched in part because poor workers are committed to repaying debts, and have no option to exit sustained insolvency. The solution here may not be technological but regulatory – instituting bankruptcy, for

example, which may offer debtors increased agency and reduced risk, and may thereby reduce risks of debt bondage.

Similarly, we need to consider how technology and regulation interact. Some of the microfinance options that are emerging around digital platforms may in fact work better if embedded in community-based savings practices, such as savings circles, cooperatives and credit unions. And the adoption of new technologies may give rise to new modern slavery risks. Technology is not a silver bullet: it needs to be understood in its social context.[109]

Perhaps the most important lesson that emerges across this review of innovation for financial inclusion targeting modern slavery risk is the need for partnership. The challenge here is to link those with in-depth expertise of modern slavery and human trafficking and its risks, those with financial innovation acumen, digital innovators and regulators. Yet the case for mobilizing such partnerships seems clear: the current lack of coordination between financial sector actors, regulators and service providers (especially to populations critically at risk of modern slavery and human trafficking), for example, means that financial sector actors may be missing out on lessons – and profit opportunities – from the lack of data sharing.

The good news is that there are a range of forums already in place through which the financial sector could engage with these issues, connecting financial inclusion discussions to modern slavery prevention and fostering regulatory innovation. These include:

- The G20's **Global Partnership for Financial Inclusion** (GPFI), for which Her Majesty Queen Máxima of the Netherlands is the Honorary Patron. The GPFI functions as an inclusive platform for G20 countries, non-G20 countries and relevant stakeholders for peer learning, knowledge sharing, policy advocacy and coordination. Participants include the World Bank Group, the SME Finance Forum, the OECD, the Better Than Cash Alliance and IFAD.
- The **Responsible Finance Forum** is an annual gathering that brings together the private sector, governments, practitioners, policymakers, academia and consumers to share emerging best practices, concrete solutions and ongoing initiatives to scale up financial inclusion globally.[110]
- The **Alliance for Financial Inclusion** is a membership organization for central banks and other financial regulatory institutions from more than 90 developing countries, where the majority of the world's unbanked reside. AFI was set up with backing from the G20 and financing from the Bill and Melinda Gates Foundation and the Omidyar Network, and with administrative support from the German development cooperation authorities. The Omidyar Network (which includes Humanity United, home institution of Financial Sector Commissioner Ed Marcum) provides venture capital investments to foster an innovation ecosystem.[111] Private sector participants include Visa, Mastercard, GSMA, TransferTo and Letshego. AFI also partners with numerous regional development banks. The AFI Maya Declaration provides a platform for member institutions to adopt concrete financial inclusion targets, implement in-country policy changes through public-private partnership and regularly share progress updates.[112] The AFI Sochi Accord on FinTech for Financial Inclusion, is the AFI network's commitment to developing regulatory or policy interventions that balance innovation in technology-based financial services (FinTech) with oversight. It provides a framework for the exchange of tested and transformative solutions to accelerate access and use of financial services.[113]
- The **Dutch Agreements on Responsible Business Conduct** [114] are semi-voluntary sector-based multistakeholder agreements on the

implementation of the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, which the Dutch government has been active in developing since 2014. These agreements aim to facilitate steps to prevent and mitigate adverse impacts (e.g. child labour, low wages, human rights violations or environmental pollution) within a period of three to five years after an agreement has been concluded; and offer a collective solution to problems that businesses are unable to solve, or solve entirely, on their own. Several agreements that are likely to be relevant to modern slavery prevention have been agreed, including the Dutch Agreement on Sustainable Garments and Textile[115] the Dutch Banking Sector Agreement;[116] the Agreement Responsible Gold;[117] the Insurance Sector Agreement;[118] and the Agreement for the Pensions Funds.[119]

The Commission may wish to consider how modern slavery and human trafficking risks can best be raised in these forums.

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- Social Project Bond: a project bond for a single or multiple Social Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer;
- Social Securitized and covered Bond: a bond collateralised by one or more specific Social Project(s), including but not limited to covered bonds, asset-backed securities, mortgage-backed securities, and other structures. The first source of repayment is generally the cash flows of the assets.

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Secretariat Briefing Paper 3

INNOVATION FOR INCLUSION:
USING DIGITAL TECHNOLOGY TO INCREASE FINANCIAL AGENCY AND PREVENT MODERN SLAVERY

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