Cryptoassets in Asia

Consumer attitudes, behaviours and experiences
Acknowledgements

This publication sets out the key findings of research commissioned by the OECD to better understand the attitudes, behaviour and experiences of financial consumers with regard to cryptoassets (specifically cryptocurrencies and ICOs) in order to inform the development of evidence-based financial consumer protection and financial education responses. Data was collected in February and March 2019 by GfK, a research and analytics provider.

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Executive summary

The financial landscape is constantly evolving, with new developments across distribution channels, products and services. Digitalisation is a key trend, which not only changes the way in which consumers and investors interact with traditional financial products and services, but which has also led to the development of new, technology-driven products and services, by both existing market participants and new entrants such as FinTech enterprises.

Cryptoassets, in the form of digital or cryptocurrencies and initial coin offerings (ICOs), are one such development which has captured the interest of the public and policy makers around the world in recent times. Starting most notably with Bitcoin, and enabled by blockchain technologies, a proliferation of cryptoassets has become available which, regardless of their stated purposes, have been attractive to some as investment opportunities, fuelled in some cases by significant price increases or the perceived potential for such.

Digital financial products, including cryptoassets, offer a range of potential benefits and opportunities including, for example, supporting financial inclusion efforts. At the same time, as with any financial product or service available to the general public, effective financial education and financial consumer protection approaches are essential to manage the associated risks. Together such approaches support the financial wellbeing and empowerment of individuals and the overall stability of the financial system.

Effective and targeted financial consumer protection and financial education approaches require data about the attitudes, behaviours and experiences of financial consumers. To this end, and to add to the general evidence base available, the OECD developed a new survey instrument and commissioned a first wave of quantitative research in February and March 2019 on the attitudes, behaviours and experiences of financial consumers in cryptoassets across three markets in Asia. Financial support was provided by the Japanese Government. The three markets selected for this research were Malaysia, the Philippines and Viet Nam because of their active markets for cryptoassets and regional diversity. Importantly, the purpose of the research was to collect demand-side data to understand attitudes, behaviours and experiences among financial consumers and draw potential considerations for financial consumer protection and financial education. The report does not appraise or evaluate the legal and regulatory frameworks in place in those jurisdictions.

Section 1 describes key terms relating to cryptoassets. Section 2 sets out a brief overview of the evolution of the market and developments in the policy and regulatory frameworks designed to protect financial consumers. The key findings of the research are presented in Section 3.

The report concludes in Section 4 by identifying a series of policy considerations relating to financial consumer protection and financial education, namely:

- Conduct communication campaigns to alert financial consumers to the risks of cryptoassets, including security considerations, lack of financial consumer or investor protection, potential for fraud and risks of dealing with overseas operators.
- Develop targeted financial education initiatives to promote the understanding of cryptoassets and reinforce key investing concepts, such as risk/return and diversification, and to highlight the risks of borrowing to invest.
- Consider the nature of cryptoassets to assess whether regulatory requirements should apply, and if so clarify which ones apply. Consider whether there are any gaps in terms of financial consumer protection.
- Consider using resources and tools developed by international organisations and standard setting bodies.
- Collect data on financial consumer behaviour and monitor market developments (market participants, products, distribution etc.) to understand issues, risks and challenges arising, and develop evidence based policy responses.
- Monitor advertising, especially via online channels, to understand how cryptoassets are promoted and watch for misleading representations.
- Consider the adequacy of disclosure standards or requirements for whitepapers.
- Engage in international cooperation to develop guidance or standards.
- Share information with other regulatory agencies both at a national and international level.
Introduction

Background

The financial landscape is constantly evolving, with new developments taking place across distribution channels, products and services. Digitalisation is a key trend with an explosion in the range of digital financial products and services available to financial consumers. Cryptoassets is one such development, and they are receiving increased focus and interest from the public, policy makers and oversight authorities.

Effective financial education and financial consumer protection strategies are essential in the face of the widespread digitalisation of financial products and services. Together they support the financial wellbeing and empowerment of individuals and the overall stability of the financial system. This has been globally recognised and endorsed by G20 Leaders through a series of high-level principles on Innovative Financial Inclusion (2010), Financial Consumer Protection (2011) and National Strategies for Financial Education (2012).

Building on its global leadership in the fields of financial education and financial consumer protection, the OECD is actively involved in developing policy research and guidance on the implications of changes from digitalisation to support policy makers globally, through its International Network on Financial Education and the G20-OECD Task Force on Financial Consumer Protection.

In order to support this work, and consistent with the various G20 Principles, the OECD has developed a new survey instrument and commissioned a first wave of quantitative research to better understand the attitudes, behaviour and experiences of financial consumers with regard to cryptoassets (specifically cryptocurrencies and ICOs) and the implications for financial consumer protection and financial education.

This first study was conducted in February and March 2019 across three markets: Malaysia, the Philippines and Viet Nam, selected as a diverse range of jurisdictions with active markets for cryptoassets, including cryptocurrencies and initial coin offerings (ICOs). Importantly, the purpose of the research was to collect demand-side data to understand consumer experiences, attitudes and behaviours, it was not to appraise or evaluate the legal and regulatory frameworks in place in those jurisdictions.

The research draws on the evidence from these markets to identify policy considerations in the region and globally.

Structure of this report

This report comprises four sections. Key terms relating to cryptoassets are described in the remainder of Section 1. Section 2 contains a brief overview of the evolution of the market and developments in the policy and regulatory frameworks. The key findings of the research are presented in Section 3. The report concludes in Section 4 by identifying a series of policy considerations for financial consumer protection and financial education to address the issues identified through the research.
Description of the key concepts

Throughout this paper, the term “financial consumers” is used to refer to the broader public who may be potential investors in cryptoassets, while “retail investors” refers to actual holders of cryptoassets.

To date, there is no internationally agreed definition of the term “cryptoassets”. Given the variety of terms related to these assets (e.g. digital currency, virtual currency, cryptocurrency, cryptoassets, etc.) in various settings, it is important to clarify terminology for the purposes of this report.

**Cryptoassets**

For the purpose of this report, the term “cryptoassets” is used as an umbrella term to refer to private assets that rely on cryptography and distributed ledger technologies to control the creation of additional value units and to verify transactions (FSB, 2018). Text referring to cryptoassets therefore relates to both cryptocurrencies and ICOs.

**Cryptocurrencies**

Certain kinds of cryptoassets can function as a digital means of exchange, which is not backed by an issuer. These types of assets are also referred to as “cryptocurrencies”, of which Bitcoin was the first to be well known. Cryptocurrencies have been defined as “a digital representation of value that i) is intended to constitute a peer-to-peer alternative to government-issued legal tender, ii) is used as a general-purpose medium of exchange (independent of any central bank), iii) is secured by a mechanism known as cryptography and (iv) can be converted into legal tender” (Houben & Snyers, 2018).

One of the innovative aspects of cryptocurrencies is their independent issuance mechanism, which cuts out the need for intermediary institutions. This independence is made possible by storing information using distributed ledger technology (DLT). DLT contains information records connected in blocks to form the blockchain. As the blockchain mechanism uses cryptography to link blocks, it becomes nearly impossible to change transaction data. These blocks can be added by users and the transaction of cryptocurrency is verified via a computerised process called “mining”. Miners (solvers of cryptographic problems) receive a certain amount of cryptocurrency in return for their efforts (Sherman, 2018).

**Initial Coin Offerings (ICOs) and digital tokens**

A decade after the emergence of Bitcoin, there has been a proliferation in both number and type of cryptoassets developed. Among these, Initial Coin Offerings (ICOs) first started to appear in 2013.

According to the OECD, ICOs “consist of the creation of digital tokens by start-up companies and their distribution to investors in exchange for fiat currency or mainstream cryptocurrencies” (OECD, 2018). One of the challenging issues with digital tokens is the difficulty in defining them.

Existing frameworks in some jurisdictions tend to divide tokens mainly into three categories: i) payment tokens: digital means of payment or exchange, ii) utility tokens: granting digital access to specific digital platforms and services; iii) security tokens: asset-backed tokens representing ownership interests in property (Blandin et al., 2019).

The standard market practice for ICOs typically starts with the release of a whitepaper, which consists of information about the business idea, investment motives, the founding members and the rights given by the token sale. In many jurisdictions, there is no disclosure requirement for the whitepapers, due to the absence of a clear regulatory framework (Florysiak & Schandlbauer, 2019). From a regulator’s perspective, this lack of transparency can lead to issues with regards to exploitation of retail investors, and a high risk of fraud.
2 Brief overview of market and regulatory developments

The emergence of cryptoassets

The first decentralised cryptocurrency (Bitcoin) was created in 2009. Early Bitcoin owners were mainly computer scientists and programmers, but interest grew among investors and speculators. Other cryptocurrencies started to emerge, based on the open source code of Bitcoin. As a result, exchanges were developed to facilitate buying and selling of cryptocurrencies using fiat money and exchange between cryptocurrencies.

From about 2017 onwards, public interest in cryptocurrencies intensified, accompanied by significant hype and volatility in price. As noted by the ECB, for example, the market capitalisation of cryptoassets reached an all-time high of EUR 650 billion in January 2018, from where it has declined to around EUR 96 billion a year later (ECB, 2019). In terms of the price of Bitcoin, this has fluctuated from about USD 1,000 in January 2017, to about USD 15,000 in January 2018, to under USD 4,000 in January 2019 (CoinMarketCap, 2019). In addition, while Bitcoin remains the largest cryptocurrency by market share, hundreds of others have emerged and are being traded. According to one estimate, the number of cryptocurrency coins increased from 682 in 2017 to 1,474 in 2018 (Mandeng, 2018).

The continued interest in these assets led to the arrival of new players and instruments in the cryptoasset ecosystem. Among these were ICOs, which emerged as an innovative way for raising capital and a solution for entrepreneurs looking to attract funding for their start-ups (Niessner et al., 2018). Mastercoin held the first ICO issuance in 2013 (Mendelson, 2019). Since then supply and demand of ICOs has grown rapidly as they became popular among some investors including retail investors interested in investing via a blockchain-based mechanism. Interest in using the ICO mechanism gained more traction and some observers suggested that it has triggered a “fear of missing out” sentiment among some investors, leading to an exponential growth of exchange and trading platforms (Gantori et al., 2018).

The total ICO volume in the second half of 2017 exceeded the sum of all previous ICOs together (OECD, 2018). In early 2018, the total amount of funds peaked at USD 7 billion, although this then fell sharply to USD 926 million in July 2018 (Demertzis & Wolff, 2018).

Potential benefits and risks

Digital financial products, including cryptoassets, offer a range of potential benefits and opportunities for policy makers, including, for example, supporting financial inclusion efforts. At the same time, some financial consumers may be attracted to investing in, or holding, cryptoassets because of potential or perceived benefits associated with the underlying technology.

The Blockchain technology on which cryptoassets are built increases transparency, immutability and traceability as well as potentially improving (or replacing the need for) trust through the distribution of information. It can also reduce transaction costs by reducing the role of intermediaries. Investors have
been drawn to the possible benefits of such technology, leading to rising prices. This in turn has increased the visibility of cryptoassets as a potential investment among financial consumers.

While some financial consumers may recognise the potential benefits of cryptoassets and be attracted to the idea of owning them, they face a number of risks if they enter the market. Such risks stem in particular from market volatility, the potential for scams and fraud, but also from security-related mistakes such as losing passwords and private keys. These risks may be further exacerbated given the cross-border nature of cryptoassets.

Exchange and trading platforms are significant players in the ecosystem of cryptoassets. However, these platforms may be exposed to cyber-attacks due to a lack of, or compromised, security measures. For example, cybercriminals may try and steal the private keys that enable consumers to access and transfer their cryptoassets (FCA, 2019).

The risks to retail investors may be amplified in the ICO market, where research suggests that there is a high degree of information asymmetry between them and entrepreneurs. In many cases, the whitepapers that are intended to help retail investors to make informed decisions do not provide detailed information about the company, the business plan, the product and financial statements (Chod & Lyandres, 2018). Advertisements, including online advertisements, can also be potentially misleading for consumers. In 2018, the International Organisation of Securities Commissions (IOSCO) noted the “increased targeting of ICOs to retail investors through online distribution channels by parties often located outside an investor’s home jurisdiction” (IOSCO, 2018). There have been cases in which the cryptoassets did not exist or issuers disappeared after the ICO process (ESMA, 2019). Between 5% and 25% of all ICOs are fraudulent according to current estimates (OECD, 2018).

The anonymous nature of cryptoassets also provides new avenues for financial crime such as money laundering and terrorist financing. The Financial Action Task Force (FATF) report to the G20 Finance Ministers and Central Bank Governors noted that “virtual currencies/crypto-assets facilitate easy online access and global reach which make them attractive to move and store funds for money laundering and terrorist financing. The FATF is actively monitoring the risks associated with virtual currency/crypto-asset payment products and services …” (FATF, 2018).

Looking ahead: the next generation of cryptoassets

FinTech companies have looked for ways to overcome the price volatility associated with the first generation of cryptoassets and, in particular, they have focused on a new generation of cryptoassets known as “stablecoins”. In contrast with the first generation of cryptoassets, the value of a stablecoin is pegged to one or more external sources such as fiat currency or commodities. From the developers’ side, the emergence of this new type of instrument can be seen as an effort to ensure investor confidence and to overcome the speculative aspect of cryptoassets. Even though stablecoins represented just 1.5% of the total market value of cryptoassets in 2018, some observers believe that these assets may become mainstream in the near future (ECB, 2019).

At the same time, some central banks, for example those in China, Sweden and Switzerland, have started to explore the possibility of developing their own version of stablecoins - Central Bank Digital Currencies (CDBCs). The intention is that the CDBCs could serve as an alternative to other forms of cryptocurrencies and stablecoins (Dell’erba, 2019).

Regulation of cryptoassets

The proliferation of cryptoassets and the risks for consumers has raised concerns from policy makers and regulators at both the national and international level. Regulatory approaches have varied across
jurisdictions, ranging from outright bans, to the application of existing laws (e.g. laws governing securities), and the issuing of warnings to the public. A number of jurisdictions have adopted supportive environments to facilitate the development of cryptoassets. The application of laws may also depend on whether the cryptoasset in question is classified as a security token, payment token or utility token.

**Outright bans**

A number of jurisdictions have introduced bans on cryptoassets. For instance, China announced a legal ban on trading platforms offering cryptoassets to fiat currency, while considering ICOs as unauthorised public financing. The People’s Bank of China stated that any activities related to cryptoassets would be subject to criminal laws (Blandin, et al., 2019).

**Application of laws and classification of certain cryptoassets as securities**

If an asset is subject to securities laws, issuers are obliged to comply with specific obligations, including obligations relating to disclosure and registration.

For example, in the United States, the Securities and Exchange Commission (SEC) has taken the view that the U.S. securities laws apply to cryptoassets such as those issued in ICOs if they are securities. A “security” is defined by U.S. statutes and includes many instruments including stocks, bonds, transferable shares and investment contracts. Both the SEC and U.S. federal courts frequently use the “investment contract” analysis to determine whether unique or novel instruments or arrangements such as cryptoassets are securities subject to the federal securities laws. The U.S. Supreme Court's Howey case\(^1\) and subsequent case law have found that an "investment contract" exists when there is the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others (Mendelson, 2019). If a cryptoasset is an investment contract or other type of security, then requirements under the U.S. securities laws apply. The SEC has taken steps to increase awareness of the frauds and scams associated with ICOs, for example by launching a mock ICO called HoweyCoins, including a whitepaper and website with the features of common fraud schemes (SEC, 2018).

In the United Kingdom, security tokens and e-money tokens are subject to regulatory requirements and, where relevant, to laws governing securities. Other tokens, including those commonly known as utility tokens and exchange tokens, generally fall outside of the conduct regulatory perimeter, according to cryptoasset guidance issued in July 2019 by the Financial Conduct Authority (FCA, 2019).

In France, the stock market regulator, Autorité des Marchés Financiers (AMF), published a Discussion Paper on ICOs in 2017 (AMF, 2017) and subsequently issued a summary document on the responses. France adopted a regulatory approach based on the authorisation regime. An optional visa regime has also been created under the PACTE draft Bill (Action Plan for Business Growth and Transformation). The PACTE draft Bill was adopted at its final reading in the French National Assembly in 2019. Once enacted, the law will establish a framework for fundraising via the issuance of tokens and digital assets services providers. According to the PACTE draft Bill, ICO issuers may: (i) decide to apply for authorisation with the AMF, which will then issue its approval upon meeting certain requirements; or, ii) decide not to apply for authorisation with the AMF. An optional visa would be provided upon meeting the following requirements: (i) the obligation for the issuer of the tokens to be incorporated as evidence of a legal entity established or registered in France; ii) the setting up of a system for monitoring and safeguarding of the assets collected as part of the offer; iii) compliance with the anti-money laundering and terrorist financing rules; iv) the provision of an information document that will provide all relevant information on the token, the project to be financed and the company (AMF, 2019).

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\(^1\) (SEC v. W.J. Howey Co., 328 U.S. 293 (1946))
The PACTE draft Bill, as definitively adopted by the French Parliament, reinforces the AMF’s powers to provide better protection to investors. The AMF will have the power to oversee the ICOs that have received its visa and to supervise licensed service providers. In the event of non-compliance with the rules, the AMF may hand down sanctions against ICO issuers and licensed service providers. Additionally, ICOs that do not have visa, as well as unlicensed service providers will, be prohibited from solicitation, patronage and sponsorship activities. Advertising will remain authorised. Consequently, the AMF may publish a blacklist of ICOs and digital assets services providers that do not comply with the regulations. Finally, it may block access to fraudulent websites offering services in digital assets (AMF, 2019).

Regulatory authorities at the European Union (EU) level have adopted the term “virtual currency”, highlighting the payment functions of cryptoassets. The scope of the fifth EU Anti-Money Laundering Directive (AMLD 5) has been extended to cover exchanges, wallet providers and other relevant companies offering trading services. All member states are obliged to comply with the requirements by January 2020 (EU, 2018).

The European Securities and Markets Authority (ESMA) has published “Advice on Initial Coin Offerings and Cryptoassets” to set out issues related to the application of existing EU rules to cryptoassets that are qualified as financial instruments. The advice document states that “Where crypto-assets qualify as transferable securities or other types of MiFID financial instruments, a full set of EU financial rules, including the Prospectus Directive, the Transparency Directive, MiFID II, the Market Abuse Directive, the Short Selling Regulation, the Central Securities Depositories Regulation and the Settlement Finality Directive, are likely to apply to their issuer and/or firms providing investment services/activities to those instruments” (ESMA, 2019).

Some jurisdictions approach cryptoassets as innovative mechanisms to attract investment and have developed or adapted laws or regulations to support such an approach. In Gibraltar, for example, a regulatory framework was established for exchanges, and a licensed and regulated digital asset exchange was created in 2018 (Blandin, et al., 2019).

Another example is Switzerland where the Swiss Financial Market Supervisory Authority (FINMA) has made a distinction between payment tokens, utility tokens and asset tokens (FINMA, 2018). FINMA addressed various aspects of these tokens and stated that utility tokens would not be considered as securities if they are limited to giving access to digital services. Moreover, in November 2019, the Swiss Federal Council published a bill on further improvements of the framework conditions for DLT/blockchain. The proposal aims at increasing legal certainty, removing barriers for DLT-based applications based and reducing the risk of abuse. The Swiss Bankers Association (SBA) also issued guidelines for its members to open bank accounts for blockchain firms (SBA, 2018).

International developments

At the international level, relevant organisations are focusing on issues related to financial stability, market integrity, investor protection and the applicability of Anti-Money Laundering / Combating the Financing of Terrorism (AML/CFT) laws.

In 2018, the Financial Stability Board (FSB) reported to the G20 Finance Ministers and Central Bank Governors its assessment that while the FSB believed that cryptoassets did not pose a material risk to global financial stability at that time, it recognised the need for vigilant monitoring in light of the speed of market developments (FSB, 2018). In his March 2018 letter to the G20 Finance Ministers and Central Bank Governors, the FSB Chair noted that cryptoassets raised issues around consumer and investor protection, as well as their use to shield illicit activity and for money laundering and terrorist financing. At the same time, the technologies underlying them have the potential to improve the efficiency and inclusiveness of both the financial system and the economy (FSB, 2018). Also in 2018, the FSB developed a framework, in collaboration with the Committee on Payments and Market Infrastructures (CPMI) for monitoring the
financial stability risks related to cryptoassets, including metrics to be used as part of its ongoing assessment of vulnerabilities in the financial system (FSB, 2018).

In 2019, the FSB published a directory for regulators entitled “Cryptoassets Regulators Directory” to provide information on the relevant regulators and other authorities in FSB jurisdictions and international bodies that are dealing with cryptoasset issues and the aspects covered by them (FSB, 2019).

Additionally, the FSB prepared a report called “Cryptoassets: Work underway, regulatory approaches and potential gaps” to deliver to G20 Finance Ministers and Central Bank Governors in May 2019 (FSB, 2019). This report provided updated information on the work of international authorities and highlighted the possibility of gaps in cases where assets fall outside of the perimeter of regulations.

As the global standard-setter for securities regulation, IOSCO has taken a leading role in monitoring the evolution of cryptoassets and providing support for IOSCO members, where appropriate. In 2017, IOSCO published a research report on financial technologies, covering, among other things, distributed ledger technologies, including application of the blockchain technology and shared ledgers to the securities markets (IOSCO, 2017). Following this report, IOSCO issued a statement to its members regarding the risks of ICOs and made available a sample of communications issued by its members (IOSCO, 2018). In January 2018, the IOSCO Board released a communication on concerns associated with ICOs (IOSCO, 2018).

In August 2019, IOSCO published an ICO Support Framework to assist its members in considering how to address domestic and cross-border issues stemming from ICOs that could undermine investor protection. In order to encourage its members to discuss their experiences and concerns, including in relation to any cross-border issues, IOSCO also established an ICO Consultation Network. In May 2019, IOSCO released a consultation report entitled “Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms” (IOSCO, 2019) that describes the issues associated with cryptoasset trading platforms (CTPs) and sets out key considerations to assist regulatory authorities in addressing these issues. The Consultation Report noted that many of the issues related to the regulation of CTPs are common to traditional securities trading venues, but may be heightened by how CTPs operate. Where a regulatory authority has determined that a cryptoasset is a security and falls within its remit, the basic principles or objectives of securities regulation should apply. The IOSCO Principles and Methodology, therefore, provide useful guidance for regulatory authorities. Elsewhere, IOSCO has also examined fund exposure to cryptoassets, considering issues such as custody, valuation, liquidity, underlying asset trading, financial promotions, and disclosure and transparency. Finally, IOSCO is also examining global stablecoins, considering how its Principles and Standards could apply to such assets, depending on their final structure.

In 2018, the FATF, an intergovernmental organisation founded on the initiative of the G7 to develop policies to combat money laundering, adopted changes to its Recommendations and Glossary to include financial activities related to “virtual assets” and “virtual asset service providers” (FATF, 2012-2019). The changes require that virtual asset service providers should be regulated, licensed/registered and monitored/supervised for the purposes of AML/CFT. Following this, the FATF clarified how the AML/CFT measures should be implemented in a virtual asset context and published a guidance document entitled “Guidance for a Risk Based Approach to Virtual Assets and Virtual Asset Providers” in 2019 (FATF, 2019).

Regulatory environment in Malaysia, the Philippines and Viet Nam

This section provides a brief overview of the regulations relating to cryptoassets in the jurisdictions included in the research, i.e. Malaysia, the Philippines and Viet Nam. This information is provided solely for context. It is important to note that the purpose of the research was not to appraise or evaluate the legal and regulatory frameworks in place in those jurisdictions.
Malaysia

In Malaysia, the main regulators of cryptoassets are the Securities Commission Malaysia (SC) and the Bank Negara Malaysia (BNM). Cryptocurrencies are not recognised as a means of payment and are not classified as legal tender by Malaysian regulators (BNM, 2014). According to the definitions, “digital currencies and tokens, which are not issued by any government or central bank, and fulfil other specific features, are considered securities”. In addition, entities and exchanges in relation to cryptoassets are obliged to register as a recognised market operator (RMO) (see Box 2.1).

**Box 2.1. Relevant regulations in Malaysia**

In 2017, BNM released a proposed policy on the invocation of reporting obligations on digital currency exchange under the “Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA)” (BNM, 2017). This proposed policy set out the legal obligations for digital currency exchangers, which were defined as reporting institutions: In 2018, SC and BNM issued a “Joint Statement on Regulation of Cryptoassets in Malaysia” to provide clarity for the offering and trading of cryptoassets:

> “The SC will regulate issuances of cryptoassets [including digital currencies and digital tokens] via initial coin offerings (ICO) and the trading of cryptoassets at digital financial asset exchanges in Malaysia. Regulations are currently being put in place to bring cryptoassets within the remit of securities laws to promote fair and orderly trading and ensure investor protection. ICO issuers and cryptoasset exchanges which are involved in the issuance or dealing of cryptoassets with a payment function will need to comply with relevant BNM laws and regulations, including payments and currency matters. In addition, ICO issuers and cryptoasset exchanges are subject to the SC’s Guidelines on Prevention of Money Laundering and Terrorism Financing”. (SC, BNM, 2018)

Following this statement, the SC issued the “Capital Markets and Services (Prescription of Securities) (Digital Currency and Digital Token) Order 2019 (Prescription Order)” (SC, 2019). This order, which came into effect in January 2019, defined the characteristics of “digital currency” and “digital token”, while ensuring standard practices in terms of pricing, trading and asset protection. According to the definitions, digital currencies and tokens, which are not issued by any government or central bank, and fulfil other specific features, are considered securities.

Following the Order, the SC revised their “Guidelines on Recognized Markets” for the registration of operators of cryptoassets. These guidelines set additional requirements to register as an RMO (SC, 2019). BNM has also published a list of registered cryptoasset exchanges in Malaysia (BNM, 2019).


In March 2019, the SC issued a consultation paper (see Box 2.2) on its proposed approach to regulating ICOs (SC, 2019). In order to mitigate risks related to ICOs, the SC adopted a two-layer approach including authorisation for ICOs and the registration of a disclosure document (whitepaper), which complies with the minimum requirements. Based on such a framework, ICOs can raise a multiple of up to 10 times the shareholders’ funds, subject to a ceiling of RM 100 million. ICO issuers will only be allowed to withdraw or use funds raised based on milestones disclosed in the whitepaper. Other obligations relate to regular
Box 2.2. Malaysia’s Proposed Regulatory Framework for Issuance of Digital Assets through ICOs

In March 2019, the SC issued a consultation paper on the issuance of digital assets through ICOs. The issuance or offering of digital assets would require prior approval or authorisation from the SC. It is also proposed that any offering of ICO must be accompanied by a whitepaper. An ICO issuer is required to submit the whitepaper to the SC for registration. Whitepapers should contain the following information:

- brief description of the ICO issuer including the group structure and details of material entities in the group;
- details and profile of the board of directors;
- brief description of the shares;
- the purpose and timeline of the ICO, including detailed information on the underlying business/project to be managed;
- business plan;
- targeted amount to be raised through the ICO and a scheduled timeline for utilisation of the proceeds including the details of each utilisation;
- any rights, conditions or functions attached to digital tokens issued from the ICO including specific rights;
- details of the independent custodian, escrow agents or entity acting in the capacity of a trustee;
- discussion on the determination of the price per digital token including the valuation methodology and reasonable assumptions adopted in the calculation;
- financial information including an audited financial statement;
- technical description of the protocol, platform or application;
- details of the associated challenges and risks including any conflict of interests and related party transactions.


Philippines

In the Philippines, the Bangko Sentral ng Pilipinas (BSP) and the Securities and Exchange Commission (SEC) are the main regulatory authorities for cryptoassets. Cryptocurrencies are not recognised or classified as legal tender; however, entities engaging in activities involving cryptoassets are obliged to obtain a certificate of registration as remittance and transfer companies. These companies are required to put in place adequate safeguards in relation to money laundering / terrorist financing, technology risks, and consumer protection mechanisms (Bangko Sentral Ng Pilipinas, 2017).

It is estimated that USD 9.6 million was raised in the Philippines by ICOs in 2018. The Enforcement and Investment Protection Department of the Securities and Exchange Commission (SEC) of the Philippines filed a cease and desist order against four companies issuing ICOs (OECD-ASEAN, 2020). Following this, the SEC published a consultation for a proposed regulatory framework on ICOs (SEC, 2018). According to this proposed framework, “the tokens issued by the start-ups or companies conducting the ICO may
follow the nature of a security, and therefore should be registered and necessary disclosures need to be made for the protection of the investing public” (SEC, 2018).

The proposed framework embraced a two-pronged assessment of ICOs via the initial assessment and registration process. The SEC also required foreign issuers conducting ICOs to maintain a branch office in the Philippines. According to the rules, all companies conducting ICOs are required to submit an initial assessment request and description of the project to the SEC, which should be accompanied by a whitepaper. The SEC is then obliged to review the assessment and determine whether the token offered is a security. All regulatory requirements applicable to securities will apply to such offerings, including registration of securities, unless there is an exemption. In addition, the framework proposed certain types of media for the advertisement of ICOs. The issuers are not allowed to distribute deceptive, false or misleading advertising to the public.

Apart from the proposed framework, the Filipino government established a new FinTech and crypto hub at the Philippines Cagayan Special Economic Zone and Freeport (CSEZFP) in 2018. The hub is aimed at generating business opportunities for service providers of the global FinTech and cryptocurrency ecosystem (see Box 2.3).

**Box 2.3. The Philippines announced Cagayan Economic Zone Authority (CEZA)**

The Cagayan Economic Zone Authority (CEZA) is a government owned and controlled corporation that was created by virtue of Republic Act 7922, known as the “Cagayan Special Economic Zone Act of 1995”. It has been tasked to manage and supervise the development of the Cagayan Special Economic Zone and Freeport (CSEZFP). This zone was designed to attract foreign companies and build the “crypto valley of Asia”. CEZA issued the Cagayan Special Economic Zone and Freeport Financial Technology Solutions and Offshore Virtual Currency Business Rules and Regulations in 2018.

The Philippines, through CEZA, unveiled a comprehensive set of new rules governing cryptocurrencies in a bid to effectively regulate and protect investors. CEZA created Digital Financial Asset Token Offering (DATO) regulations that cover the acquisition of cryptoassets, including utility and security tokens. Under the new framework, CEZA is the principal regulating authority. The Asia Blockchain and Crypto Association (ABACA) is designated as a self-regulatory organisation (SRO) to help implement and enforce the new rules.

Under the DATO Rules, all issuers of cryptoassets are required to register their DATOs with ABACA. They are classified under one of three tiers of DATO, based on the amount they seek to raise. It should be noted that these cryptoassets must not be sold or offered for sale or distribution within the Philippines (which would be subject to BSP and SEC Philippines regulation as mentioned above).


**Viet Nam**

In Viet Nam, the State Securities Commission (SSC) and the State Bank of Viet Nam (SBV) are the main regulatory authorities for cryptocurrencies and ICOs. Viet Nam has taken a prohibitive stance against cryptoassets, including banning them as a means of legal payment, stating that fraud and scam activities relating to cryptoassets trigger the risk of money laundering, terrorism financing and tax evasion.

In 2017, the SBV issued a decree affirming that cryptocurrencies are not a lawful means of payment. In 2018, the Prime Minister of Viet Nam signed a directive that restricts activities relating to Bitcoin and other virtual currencies, after which the State Bank of Viet Nam banned the import of cryptocurrency mining...
machines, with a view to reducing the overall use of cryptocurrencies. The SSC has also issued a ban on any cryptocurrency activity for public companies, securities firms, fund managers and securities investment funds (OECD-ASEAN, 2020).

It is estimated that USD 7.7 million was raised by ICO issuances in the first half of 2019, compared with USD 9 million in the whole of 2018. It is important to note that these issuances were not subject to any regulation (OECD-ASEAN, 2020).
3 Consumer insights: key findings

It is apparent that cryptoassets are of interest to some financial consumers. However, little is known about their understanding of this new type of asset, their purchasing behaviour or their attitude towards, and understanding of, the risks that they face in this market.

In the last year or so, several studies have begun to fill this gap. In the UK, the Financial Conduct Authority (FCA) conducted research to explore the motivations of cryptoassets consumers. The research focused on awareness, understanding and purchasing habits and the findings highlighted consumers’ motivation for such purchases as seeing them as “a fast track to easy wealth” (FCA, 2019). Around the same time, the Dutch Authority for the Financial Markets (AFM) conducted research on the profile of Dutch cryptoassets investors. The research found that the main reason financial consumers wanted to invest in these assets was to make money. Additionally, this research highlighted the young age of retail investors, which differentiates from retail investors in traditional markets (AFM, 2018). A similar study was also undertaken in Austria by the Central Bank (Ritzberger-Grunwald and Stix, 2018). In addition, academics in the UK have explored the relationship between financial literacy and attitudes to cryptocurrencies in 15 markets. The research demonstrated that financially literate consumers are more likely to be aware of these assets, yet they are not likely to own cryptocurrencies (Panos and Karkkainen, 2019).

In order to contribute to this quantitative, demand-side research, the OECD has developed a new survey instrument in the form of a questionnaire to gather data on the attitudes, behaviours and experiences of respondents on the subject of cryptoassets, specifically on cryptocurrencies and ICOs. In order to understand the perceptions of consumers better, the questionnaire is designed to gather information about the following:

- attitudes to investing, including investment risk;
- experience with investing, including types of investments held;
- awareness of cryptoassets, including digital currencies and initial coin offerings;
- reasons for investing in cryptoassets;
- reasons for not investing in cryptoassets; and
- experience of investing in cryptoassets, including how the investment was made.

The survey instrument is replicated in the Annex.

Methodology

This research draws on the first results of the questionnaire developed by the OECD. The aim of the survey is to understand the incidence of cryptoasset awareness and penetration. Given the complexity and rapid developments of cryptoassets, this research focuses on two specific types of cryptoassets, namely cryptocurrencies and ICOs. The wording used in the questionnaire offers Bitcoin and Ethereum as examples of “digital or cryptocurrencies”, but does not specifically mention, or exclude, stablecoins. For future research, a broader range of specified cryptoassets could be included to explore related attitudes, behaviours and experiences of financial consumers.
A research and analytics provider was commissioned to translate the questionnaire into local languages and administer it via online channels among retail investors across three Asian countries (namely Malaysia, the Philippines and Viet Nam). As the incidence of cryptoasset holding is still relatively low, a two-stage sampling approach was used in the research design. The core survey was based on an online sample of 3,006 respondents aged 18 and over, living in Malaysia, the Philippines and Viet Nam (over 1,000 per country). Hard quotas were set on age and gender, and soft quotas on income, in order to ensure that the sample was representative of the online adult population in each country. This was supplemented by a booster sample of individuals who had ever invested in cryptoassets. The booster sample was used to increase the robustness of the sample for analysis and provide valuable information on the purchase process and behaviour concerning cryptoassets. The respondents included a diversified range of consumers across age, gender, income and education. Results of analyses reported in this paper clearly identify the sample used.

This survey, which was conducted in February and March 2019, lasted between 15 and 20 minutes per respondent. It was self-administered.

The findings set out in this section are therefore based on various groups of respondents. The main sample is used to explore the awareness of cryptoassets across the three markets, ownership of such assets and the demographic profile of cryptoasset owners, as well as future intentions. Then two samples are created to explore experiences around cryptocurrencies and ICOs separately. These are based on question 1-2 (cryptocurrencies) and 2-2 (ICOs) and include relevant respondents from the booster sample. Depending on the analysis, the sample may include those who used to hold such assets but no longer do (sample information is provided in the notes under each table and figure).

**Awareness and ownership of cryptoassets**

**Awareness of cryptoassets**

A majority of survey respondents (80%) said they were aware of cryptocurrencies in all three countries (Figure 3.1). In particular, there was a high level of awareness (84%) of cryptocurrencies in Malaysia (84%), ten percentage points higher than in the Philippines.

**Figure 3.1. Cryptocurrency awareness**

![Figure 3.1. Cryptocurrency awareness](image)

Sample: Main sample, no booster.
Question: Which of the following statements applies to you? “I have heard of digital or cryptocurrencies such as Bitcoin or Ethereum”.

CRYPTOASSETS IN ASIA: CONSUMER ATTITUDES, BEHAVIOURS AND EXPERIENCES © OECD 2019
Respondents reported a lower level of awareness of ICOs than cryptocurrencies. Just under half (46%) of the survey respondents said they were aware of ICOs, on average across all three countries. Additional analysis shows that, of those who had heard of cryptocurrencies, just over half had also heard of ICOs (53%).

There was a bigger range in awareness of ICOs than cryptocurrencies across countries, from 38% in the Philippines to 59% in Viet Nam.

Figure 3.2. ICO awareness

![ICO awareness chart](chart.png)

Note: Main sample, no booster.
Question: Which of the following statements applies to you? “I have heard of Initial Coin Offerings, or ICOs”.

Ownership of cryptoassets

Table 3.1 and Table 3.2 show the percentage of respondents who said they currently owned cryptoassets among the main sample. Despite a high level of awareness across the three countries, only 30% of respondents owned cryptocurrencies. One third of the respondents in the Philippines and Viet Nam said they held cryptocurrencies, whereas only 23% reported holding these assets in Malaysia (Table 3.1).

<table>
<thead>
<tr>
<th>Cryptocurrency Ownership</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently holds</td>
<td>30%</td>
<td>23%</td>
<td>32%</td>
<td>35%</td>
</tr>
<tr>
<td>Does not hold</td>
<td>70%</td>
<td>77%</td>
<td>68%</td>
<td>65%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: Which of the following statements applies to you? “I currently hold digital or cryptocurrencies (such as Bitcoin or Ethereum)”.

The survey results show that ownership of tokens issued in ICOs was lower than ownership of cryptocurrencies. Overall, 16% of the respondents in the main sample reported that they currently invested in them. There was a higher level of ICO awareness (59%) and ICO ownership (23%) in Viet Nam, compared with the other two countries.

Additional results of the survey (question 2-7) also indicate that across the three countries, most ICO investors had invested in more than one ICO, and 15% reported having invested in more than three, either now or in the past.
Table 3.2. ICO ownership

<table>
<thead>
<tr>
<th>ICO Ownership</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently holds</td>
<td>16%</td>
<td>12%</td>
<td>14%</td>
<td>23%</td>
</tr>
<tr>
<td>Does not hold</td>
<td>84%</td>
<td>88%</td>
<td>86%</td>
<td>77%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: Which of the following statements applies to you? “I currently hold investments in ICOs.”

Demographics of cryptoassets holders

Table 3.3 and Table 3.4 show the demographics of the respondents holding cryptoassets across the three countries, indicating that cryptocurrency holders tended to be employed and university-educated. Across the three countries, holding was greatest among 25-54 year olds, although with variations by country.

There was a very small gender difference in proportions holding cryptocurrencies across the three countries (29% of women and 31% of men held them). However, women were slightly more likely than men to hold such assets in Viet Nam (38% of the women in the sample were cryptocurrency holders, compared with 32% of men) and conversely men were more likely than women to hold them in Malaysia (26% compared with 20%).

Table 3.3. Demographics of cryptocurrency holders

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Category</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-24 years</td>
<td>19%</td>
<td>14%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>25-34 years</td>
<td>34%</td>
<td>30%</td>
<td>30%</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>35-44 years</td>
<td>33%</td>
<td>26%</td>
<td>33%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>45-54 years</td>
<td>33%</td>
<td>19%</td>
<td>51%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>55+ years</td>
<td>16%</td>
<td>13%</td>
<td>17%</td>
<td>20%</td>
</tr>
<tr>
<td>Gender</td>
<td>Women</td>
<td>29%</td>
<td>20%</td>
<td>30%</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>31%</td>
<td>26%</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Employment</td>
<td>Employed</td>
<td>36%</td>
<td>28%</td>
<td>39%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>26%</td>
<td>21%</td>
<td>34%</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>13%</td>
<td>6%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Education Level</td>
<td>PhD or Master's</td>
<td>47%</td>
<td>30%</td>
<td>53%</td>
<td>54%</td>
</tr>
<tr>
<td></td>
<td>Bachelor's</td>
<td>35%</td>
<td>27%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>16%</td>
<td>16%</td>
<td>20%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Note: Fewer than 100 respondents reported their education level as primary school or below, and so this category is not reported.

Table 3.4 describes the demographics of the respondents who invested in ICOs across the three countries. ICO investors tended to be employed and university-educated. On average, holding increased with age up to 54, from 9% of 18-24 year olds to 20% of 45-54 year olds. However, this masks differences by countries, with holding highest among 25-34 year olds in Malaysia, for example.

There was no noticeable gender gap on average, but variations are observed by country. In particular, 26% of women but only 20% of men in Viet Nam said they had invested in ICOs.
Table 3.4. Demographics of ICO investors

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Category</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-24 years</td>
<td>9%</td>
<td>9%</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>25-34 years</td>
<td>17%</td>
<td>18%</td>
<td>8%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>35-44 years</td>
<td>18%</td>
<td>14%</td>
<td>13%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>45-54 years</td>
<td>20%</td>
<td>7%</td>
<td>34%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>55+ years</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Gender</td>
<td>Women</td>
<td>17%</td>
<td>11%</td>
<td>11%</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>16%</td>
<td>13%</td>
<td>16%</td>
<td>20%</td>
</tr>
<tr>
<td>Employment</td>
<td>Employed</td>
<td>21%</td>
<td>16%</td>
<td>19%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>10%</td>
<td>6%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Education Level</td>
<td>PhD or Master's</td>
<td>36%</td>
<td>20%</td>
<td>39%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>Bachelor's</td>
<td>18%</td>
<td>13%</td>
<td>13%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>6%</td>
<td>8%</td>
<td>6%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Note: Fewer than 100 respondents reported their education level as primary school or below, and so this category is not reported.

**Future intention**

The survey identified a strong interest in future investment across the three countries. Overall, 53% of respondents stated that they would like to hold cryptocurrencies in the future. Three in ten respondents (30%) would like to hold ICOs in the future (Table 3.5 and Table 3.6). In particular, there was an appetite for investing in cryptocurrencies in the future among the respondents in Viet Nam, where 59% would like to hold them in the future, compared with 46% in Malaysia.

**Table 3.5. Future intention for cryptocurrencies**

<table>
<thead>
<tr>
<th>Future Intention</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would like to hold</td>
<td>53%</td>
<td>46%</td>
<td>53%</td>
<td>59%</td>
</tr>
<tr>
<td>Would not like to hold</td>
<td>47%</td>
<td>54%</td>
<td>47%</td>
<td>41%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: Which of the following statements applies to you? "I would like to hold digital or cryptocurrencies in the future".

**Table 3.6. Future intention for ICOs**

<table>
<thead>
<tr>
<th>Future Intention</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would like to hold</td>
<td>30%</td>
<td>22%</td>
<td>25%</td>
<td>41%</td>
</tr>
<tr>
<td>Would not like to hold</td>
<td>70%</td>
<td>78%</td>
<td>75%</td>
<td>59%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: Which of the following statements applies to you? "I would like to hold investments in ICOs in the future".

**Understanding of cryptoassets**

Survey respondents who were aware of cryptoassets were asked to rate their own level of understanding of such assets (in table 3.7, the percentage of those who were not aware is also reported).
Overall, 17% of all respondents in the main sample stated that they understand cryptocurrencies “very well”. Around one third of respondents (34%) reported that they understand cryptocurrencies “to some extent” and around another third (29%) said “not very well” (Table 3.7).

Table 3.7. Level of understanding of cryptocurrencies

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware</td>
<td>20%</td>
<td>16%</td>
<td>26%</td>
<td>18%</td>
</tr>
<tr>
<td>Not very well</td>
<td>29%</td>
<td>40%</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>To some extent</td>
<td>34%</td>
<td>33%</td>
<td>29%</td>
<td>39%</td>
</tr>
<tr>
<td>Very well</td>
<td>17%</td>
<td>11%</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: How well do you think you understand digital or cryptocurrencies like Bitcoin or Ethereum?

As for ICOs, 13% of respondents in the main sample claimed that they understand ICOs “very well”, with 21% to “some extent” and 11% “not very well”. Over 50% were not aware (Table 3.8).

Table 3.8. Level of understanding of ICOs

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware</td>
<td>54%</td>
<td>60%</td>
<td>62%</td>
<td>41%</td>
</tr>
<tr>
<td>Not very well</td>
<td>11%</td>
<td>13%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>To some extent</td>
<td>21%</td>
<td>18%</td>
<td>15%</td>
<td>31%</td>
</tr>
<tr>
<td>Very well</td>
<td>13%</td>
<td>9%</td>
<td>11%</td>
<td>19%</td>
</tr>
<tr>
<td>Base</td>
<td>3006</td>
<td>1000</td>
<td>1003</td>
<td>1003</td>
</tr>
</tbody>
</table>

Sample: Main sample, no booster.
Question: How well do you think you understand Initial Coin Offerings, or ICOs?

Overall reported levels of understanding are generally low, with the actual levels of understanding likely to be even lower given the tendency among many to overestimate self-reported levels of knowledge and understanding. These low levels of understanding mean many financial consumers are putting money into assets about which they do not have a clear idea.

**General financial knowledge**

The survey asked a number of general financial knowledge questions of all participants in the main sample to gauge financial knowledge, including three questions used in the OECD International Network on Financial Education’s Toolkit to measure financial literacy and financial inclusion. A majority of survey respondents across all three countries (81%) said they understood the relationship between risk and return and the definition of inflation (80%). However, their knowledge and attitude towards diversification was of greater concern, with only 56% who said diversifying stocks was a way of managing risk, and 56% who saw diversification across global markets as more risky than keeping money in national markets (Table 3.9).
Table 3.9. General financial knowledge

<table>
<thead>
<tr>
<th>Statement</th>
<th>Total%</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>An investment with a high return is likely to be high risk</td>
<td>81%</td>
<td>82%</td>
<td>78%</td>
<td>84%</td>
</tr>
<tr>
<td>It is higher risk to invest in global markets than national markets</td>
<td>56%</td>
<td>59%</td>
<td>63%</td>
<td>47%</td>
</tr>
<tr>
<td>High inflation means that the cost of living is increasing rapidly</td>
<td>80%</td>
<td>82%</td>
<td>80%</td>
<td>78%</td>
</tr>
<tr>
<td>It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares</td>
<td>56%</td>
<td>57%</td>
<td>57%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Base: 3006 1000 1003 1003

Sample: Main sample, no booster.
Note: Percentages indicate respondents in the main sample who report these statements are true.
Question: Do you think the following are typically true or false?

Reasons for purchasing cryptoassets

The survey results demonstrated various motives behind investing in cryptoassets. The most popular reason for purchasing cryptocurrencies was to make quick money (see Figure 3.3). One third of respondents who have ever held cryptocurrencies expressed a desire to know more about them and almost a third said that they would use these assets as a means of payment for online purchases. It is also important to note that 26% of the respondents who have ever held cryptocurrencies said they approached cryptocurrency as a long-term investment or part of a retirement fund. A smaller, but sizeable, number of respondents said they purchased cryptocurrencies to make domestic or cross-border transfers, which is consistent with the level of remittance activity in the region (for example, the Philippines is among the top five countries worldwide to receive remittances from abroad2). Interestingly, “fear of missing out” was expressed as a motivation by a small minority of respondents (6%).

Figure 3.3. Reasons for becoming a cryptocurrency holder

Sample: Respondents who have ever held cryptocurrencies, including booster sample.
Question: Why did you become a digital/cryptocurrency holder? Multiple responses are possible on this question.

Similar to cryptocurrency investors, the most common reason for investing in ICOs was to make money quickly (42%). One third of ICO investors said that they would like to know more about them (34%). Additionally, three in ten ICO investors suggested that their belief in the project had motivated them to purchase ICOs (31%).

More Vietnamese ICO investors expressed their goal of making quick money (46%) than those in the Philippines (38%) and Malaysia (38%) (Figure 3.4). Malaysian ICO investors were more likely than others were to have bought them as a longer-term investment or retirement fund (37%) or to provide an inheritance (20%).

**Figure 3.4. Reasons for investing in ICOs**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total %</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>To make money quickly</td>
<td>42%</td>
<td>38%</td>
<td>38%</td>
<td>46%</td>
</tr>
<tr>
<td>To know more about ICOs</td>
<td>34%</td>
<td>31%</td>
<td>31%</td>
<td>38%</td>
</tr>
<tr>
<td>I believe in the project making the Offer</td>
<td>31%</td>
<td>28%</td>
<td>27%</td>
<td>35%</td>
</tr>
<tr>
<td>To diversify my overall investment portfolio</td>
<td>30%</td>
<td>28%</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>As a long term investment or retirement fund</td>
<td>29%</td>
<td>37%</td>
<td>31%</td>
<td>23%</td>
</tr>
<tr>
<td>To support initiatives that build on blockchain technology</td>
<td>26%</td>
<td>26%</td>
<td>30%</td>
<td>21%</td>
</tr>
<tr>
<td>Just for fun</td>
<td>12%</td>
<td>14%</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Fear of missing out</td>
<td>11%</td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>To provide an inheritance</td>
<td>11%</td>
<td>20%</td>
<td>12%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Sample: Respondents who have ever invested in ICOs, including booster sample.
Question: Why have you invested in ICOs? Multiple responses are possible on this question.

**Sources of information about cryptoassets**

Respondents who said they currently owned cryptocurrencies were asked how they heard about cryptocurrencies for the first time (Figure 3.5). Overall, the majority of respondents first heard about these assets from online articles and social media platforms. Social media platforms were reported as being more active in spreading news in the Philippines (35%) and Viet Nam (34%) than in Malaysia (20%).
Figure 3.5. Sources of information for cryptocurrencies

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Total %</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online article e.g. blog, news website etc</td>
<td>30%</td>
<td>35%</td>
<td>25%</td>
<td>32%</td>
</tr>
<tr>
<td>Social media platforms</td>
<td>30%</td>
<td>20%</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Online advertisements</td>
<td>19%</td>
<td>20%</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>General conversations with non-experts</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Printed article</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>TV or radio programme</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>General conversations with financial or digital experts</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Investment guidance from a professional</td>
<td>2%</td>
<td>3%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Offline advertisements</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>None of the above</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>-</td>
</tr>
</tbody>
</table>

Sample: Respondents who currently hold cryptocurrencies, including booster sample.
Question: How did you first hear of digital or cryptocurrencies?

Online articles and social media platforms were also important sources of information about ICOs (Figure 3.6). The majority of those who had currently invested in ICOs referred to social media (35%) and online articles (23%). Interestingly, twice as many respondents in Viet Nam (41%) and Malaysia (20%) referred to social media platforms as a source of information.

Figure 3.6. Sources of information for ICOs

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Total %</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media platforms</td>
<td>35%</td>
<td>20%</td>
<td>39%</td>
<td>41%</td>
</tr>
<tr>
<td>Online article e.g. blog, news website etc</td>
<td>23%</td>
<td>27%</td>
<td>18%</td>
<td>25%</td>
</tr>
<tr>
<td>Online advertisements</td>
<td>17%</td>
<td>22%</td>
<td>21%</td>
<td>12%</td>
</tr>
<tr>
<td>Printed article</td>
<td>6%</td>
<td>6%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>General conversations with financial or digital experts</td>
<td>5%</td>
<td>6%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>General conversations with non-experts</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Investment guidance from a professional</td>
<td>4%</td>
<td>4%</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>TV or radio programme</td>
<td>3%</td>
<td>5%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Offline advertisements</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>1%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>None of the above</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
<td>-</td>
</tr>
</tbody>
</table>

Sample: Respondents who currently invest in ICOs, including booster sample.
Question: How did you first hear of ICOs?
Reported mode of acquisition of cryptoassets

A majority of respondents in all three countries who said they had ever held cryptocurrencies reported that they acquired these assets through direct purchase on an online platform or exchange (Table 3.10). Interestingly, a third (34%) claimed to have mined them, and 22% reported that they received these assets in payment for goods and services. Further research may be warranted on this point to check whether respondents fully understood what they held and how they acquired them, as the percentages are higher than may be anticipated.

Table 3.10. Reported mode of acquisition for cryptocurrencies

<table>
<thead>
<tr>
<th>Mode of Cryptocurrency Acquisition</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought them an online platform</td>
<td>59%</td>
<td>68%</td>
<td>43%</td>
<td>67%</td>
</tr>
<tr>
<td>Mined them</td>
<td>34%</td>
<td>26%</td>
<td>37%</td>
<td>39%</td>
</tr>
<tr>
<td>Received them in payment for goods and services</td>
<td>22%</td>
<td>22%</td>
<td>27%</td>
<td>16%</td>
</tr>
<tr>
<td>Bought them at a dedicated kiosk</td>
<td>15%</td>
<td>19%</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Transferred to me from family or friends</td>
<td>11%</td>
<td>13%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>1%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Base</td>
<td>1770</td>
<td>505</td>
<td>595</td>
<td>670</td>
</tr>
</tbody>
</table>

Sample: Respondents who have ever held cryptocurrencies, including booster sample.
Question: How did you acquire the digital or cryptocurrencies you currently hold/previous held?

Mode of payment for cryptoassets

Figure 3.7 demonstrates the modes of payment reported by respondents in all three countries who had ever held cryptocurrencies. Nearly half of the individuals used their savings to invest (46%) and a similar proportion paid from their normal budget (44%). 14% bought cryptocurrencies with money from selling other assets or investments.

However, whilst paying from existing resources was common, 13% of the respondents stated that they used a credit card loan to invest in cryptocurrencies, and 4% took a new loan. Interestingly, there were significant differences in the use of credit cards across the three countries. Twenty two per cent of the investors in Viet Nam reported the use of a credit card, compared with only 6% of the investors in the Philippines.
Just over a third of the respondents in all three countries who had ever invested in ICOs relied on their savings (37%) and a similar proportion paid from their normal monthly budget (35%). 13% paid for the investment by selling other assets or investments (Figure 3.8).

A sizeable minority of the ICO investors in all three countries took out a loan or used their credit card to invest in ICOs (8%), although the percentage was smaller than that seen above in relation to cryptocurrencies (13%).
Use of advice

A majority of respondents (69%) who had ever held cryptocurrencies had bought them on the advice of others (Table 3.11). In particular, 81% of respondents in Viet Nam invested based on the advice of someone else. In contrast, 45% of respondents in the Philippines were not specifically advised to invest in cryptocurrencies.

Table 3.11. Use of advice in cryptocurrency purchase

<table>
<thead>
<tr>
<th>Use of Advice</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>69%</td>
<td>70%</td>
<td>55%</td>
<td>19%</td>
</tr>
<tr>
<td>No</td>
<td>31%</td>
<td>30%</td>
<td>45%</td>
<td>81%</td>
</tr>
<tr>
<td>Base</td>
<td>1770</td>
<td>505</td>
<td>595</td>
<td>670</td>
</tr>
</tbody>
</table>

Sample: Respondents who have ever held cryptocurrencies, including booster sample.
Question: Did you invest in digital or cryptocurrencies based on the advice of someone else?

The proportion investing in ICOs based on the advice of someone else (79%) is ten percentage points higher than for cryptocurrencies (69%), and raises to 86% in Viet Nam (Table 3.7).

Table 3.12. Use of advice in ICO investment

<table>
<thead>
<tr>
<th>Use of Advice</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>79%</td>
<td>76%</td>
<td>72%</td>
<td>86%</td>
</tr>
<tr>
<td>No</td>
<td>21%</td>
<td>24%</td>
<td>28%</td>
<td>14%</td>
</tr>
<tr>
<td>Base</td>
<td>997</td>
<td>267</td>
<td>258</td>
<td>472</td>
</tr>
</tbody>
</table>

Sample: Respondents who have ever invested in ICOs, including booster sample.
Question: Did you invest in ICOs based on the advice of someone else?

Who was the adviser?

When asked about their sources of advice, nearly half of the respondents (47%) reported that they were advised to buy cryptocurrencies by a family member or a friend. Only one-third (33%) had received advice from a professional financial adviser, and the same proportion took advice from an expert in blockchain technology (33%) (Table 3.8).

Table 3.13. Sources of advice regarding cryptocurrency purchase

<table>
<thead>
<tr>
<th>Source</th>
<th>Total %</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family member or a friend</td>
<td>47%</td>
<td>50%</td>
<td>45%</td>
<td>47%</td>
</tr>
<tr>
<td>Professional adviser e.g. financial adviser or accountant</td>
<td>33%</td>
<td>36%</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>Expert in blockchain technology or related technologies</td>
<td>33%</td>
<td>36%</td>
<td>31%</td>
<td>32%</td>
</tr>
<tr>
<td>Work colleague</td>
<td>17%</td>
<td>13%</td>
<td>18%</td>
<td>19%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>0%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Base</td>
<td>1224</td>
<td>351</td>
<td>327</td>
<td>546</td>
</tr>
</tbody>
</table>

Sample: Respondents who invested in cryptocurrencies based on the advice of someone else, including booster sample.
Question: Who gave you the advice?
Multiple responses are possible to this question.
Nearly half of the respondents (45%) who have ever invested in ICOs in all three countries reported that they received advice from a professional adviser, and over a third of respondents took advice from an expert in blockchain technology (37%) (Table 3.14).

Table 3.14. Sources of advice regarding ICO investment

<table>
<thead>
<tr>
<th>Source</th>
<th>Total</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional adviser e.g. financial adviser or accountant</td>
<td>45%</td>
<td>46%</td>
<td>45%</td>
<td>46%</td>
</tr>
<tr>
<td>Family member or a friend</td>
<td>38%</td>
<td>42%</td>
<td>36%</td>
<td>37%</td>
</tr>
<tr>
<td>Expert in blockchain technology or related technologies</td>
<td>37%</td>
<td>40%</td>
<td>34%</td>
<td>37%</td>
</tr>
<tr>
<td>Work colleague</td>
<td>16%</td>
<td>14%</td>
<td>12%</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>-</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Base</td>
<td>791</td>
<td>202</td>
<td>185</td>
<td>404</td>
</tr>
</tbody>
</table>

Sample: Respondents who invested in ICOs based on the advice of someone else, including booster sample.
Question: Who gave you the advice?
Multiple responses are possible on this question.

**Whitepapers**

When asked about whitepapers, 86% of respondents who had ever invested in ICOs stated that they read the ICO whitepaper before investing. A majority of the respondents who had read the whitepaper reported that they found it “very useful” (63%) or “somewhat useful” (36%) (Figure 3.9). However, more than one in ten did not find it easy to understand (11%). Only 38% of the ICO investors found the whitepaper very easy to understand; a further 50% suggested it was quite easy.

Figure 3.9. ICO whitepaper

Sample: Respondents who have ever invested in ICOs, including booster sample.
Question: Thinking about the most recent ICO you have invested in, did you read the ICO whitepaper in making your investment decision?
How easy was the white paper to understand?
How useful do you think the white paper was in terms of helping you to understand all that you needed to know about the ICO?
More than half of the respondents who had ever invested in ICOs said that they had read the business idea, followed by the abstract of an ICO whitepaper. Only 10% of the ICO investors said they had read all the parts of a whitepaper (Figure 3.10).

Figure 3.10. Which parts of the whitepaper?

Sample: Respondents who read the white paper of the most recent ICO they invested in, including booster sample.
Question: Which parts of the white paper did you read?

Risk appetite

Whilst more than seven in ten (72%) respondents across the three countries who held cryptocurrencies reported that they could afford to lose the money invested, it is important to consider that almost one in three (28%) had invested more than they could afford to lose.

Figure 3.11. Risk appetite for cryptocurrencies

Sample: Respondents who currently hold cryptocurrencies, including booster sample.
Question: Can you afford to lose the money you have invested in digital or cryptocurrencies?

Reaction to a cryptocurrency price drop

While the majority reported they could afford to lose the money invested in cryptocurrencies, a majority of respondents who currently held cryptocurrencies (75%) nonetheless reported that they were "slightly
worried” or “very worried” about financial security the last time that the price fell below the price they had paid. However, more than half of the respondents who had experienced a price drop stated that they bought more the last time it happened. In other words, they saw the price drop as an opportunity to buy.

Three in five ICO investors had experienced a decrease in value of their investment. The majority of these were slightly worried (54%) or very worried (19%) when the price fell and a similar proportion (72%) stated that they had tried to sell their investment as quickly as they could when this happened.
Figure 3.13. Reaction to fall in ICO value

Sample: Respondents who currently hold ICOs, including booster sample.
Question: Has the value of your ICO investment ever fallen below the price you paid?
Thinking about the last time when the value of your ICO investment fell below the price you paid, what did you do?
Still thinking about this, to what extent were you worried about your future financial security when the value of your ICO investment fell below the price you paid?

For a majority of respondents in all three countries who held cryptocurrencies (53%), these assets represented only a small proportion of their investment portfolio (10% or less). Still, for just under 10% of respondents, these assets represented 50% or more of their investment portfolio. For up to 3% of respondents (depending on the country) the investment in cryptocurrencies was the only investment in their portfolio. Respondents who held cryptocurrencies in the Philippines were slightly more exposed to risk, with 15% of them having 50% or more of their portfolio concentrated in cryptocurrencies. (Figure 3.14).

Portfolio investment

Figure 3.14. Portfolio investment in cryptocurrencies

Sample: Respondents who currently hold cryptocurrencies, including booster sample.
Question: Approximately what percentage of your overall portfolio is invested in digital or cryptocurrencies, at current value?
The trend is of a similar magnitude for ICOs. For almost half of respondents (48%) who held ICOs in all three countries, these assets represented only a small proportion (10% or less) of their investment portfolio. Still, for less than 10% of the respondents, ICOs represented 50% or more of their investment portfolio. For up to 3% of respondents (depending on the country) the investment in ICOs was the only investment in their portfolio. A sizeable minority of respondents who held ICOs in the Philippines were slightly more exposed to risk with 21% of them having 50% or more of their portfolio concentrated in ICOs (Figure 3.15).

**Figure 3.15. Portfolio investment in ICOs**

Sample: Respondents who currently hold ICOs, including booster sample.
Question: Approximately what percentage of your overall portfolio is invested in ICOs?
Policy considerations

This research shows that whilst cryptoassets are currently only held by a minority of financial consumers, the level of awareness of cryptocurrencies across the three markets studied is high, and appetite exceeds current levels of ownership. While the majority of financial consumers investing in cryptoassets say that they could afford to lose the money invested, given the general lack of understanding of cryptoassets or the risks involved, the reasons for investing, the use of credit by some and the lack of professional advice among many when purchasing, there is a strong likelihood of a misalignment between the risk profile of some financial consumers and the level of risk they are exposed to. With this in mind, this section sets out a series of policy responses for consideration.

Conduct communication campaigns to alert consumers to the risks of cryptoassets, including security considerations, lack of consumer or investor protection, potential for fraud and risks when dealing with overseas operators.

This research indicates that many financial consumers are aware that they do not fully understand cryptoassets, and a sizeable proportion are unaware of the importance of diversification when investing. In general, a low level of understanding of investing and cryptoassets may make consumers more susceptible to fraud and scams. Individuals should be aware of the existence of fraud and of the cyber risks associated with cryptoassets, and the possible lack of financial consumer or investor protection in some jurisdictions. Communication campaigns can raise awareness of risks and vulnerabilities. Policy makers and authorities should identify a range of channels through which to communicate these messages, given the demographic of the individuals most at risk of fraud.

Develop targeted financial education initiatives to promote the understanding of cryptoassets and reinforce key investing concepts, such as risk/return and diversification, and to highlight the risks of borrowing to invest.

Financial education has an important role to play in helping financial consumers and retail investors understand key investing fundamentals, such as risk and return and the importance of diversification. These fundamentals apply to investments in cryptoassets as much as any other type of investment, whether regulated or not. In addition, and as set out in the findings above, some individuals are using credit to invest in cryptoassets. It is important that individuals fully understand the additional risks associated with investing with borrowed money.

According to the research findings, a sizeable minority of retail investors approach cryptoassets as long-term investments or retirement funds. Considering the interest of younger cohorts in cryptoassets, policy makers may seek a targeted approach that reaches a younger audience. Given the sizeable proportion of individuals buying cryptoassets to provide an inheritance, attention should also be paid to information and guidance around inheritance planning and transfer of digital assets.
Consider the nature of cryptoassets to assess whether regulatory requirements should apply, and if so clarify which ones apply. Consider whether there are any gaps in terms of financial consumer protection.

Regulatory frameworks for cryptoassets differ widely. Jurisdictions have adopted various approaches to address relevant issues, yet gaps may arise where specific types of cryptoassets may be outside regulatory perimeters. Given their rapidly changing nature, evaluating them is not an easy task. In this regard, it can be helpful to learn from practices developed elsewhere. Regulators should also consider the importance of communicating the applicable regulatory requirements to market participants.

Consider using resources and tools developed by international organisations and standard setting bodies.

Policy makers may be able to utilise existing resources and tools. International organisations and standard setting bodies have engaged in monitoring exercises and produced reports, as well as resources and tools, to help jurisdictions on different aspects of cryptoassets as necessary. In relation to cryptoassets that may be classified as securities, for example, IOSCO has produced a number of resources and facilitated a consultation network for the benefit of its members.

Collect data on consumer behaviour and monitor market developments (market participants, products, distribution etc.) to understand issues, risks and challenges arising, and develop evidence-based policy responses.

Given the complex and rapidly evolving nature of cryptoassets, it is crucial to understand consumer attitudes, behaviours and experiences to assess requirements for adequate financial consumer protection, for example by using the OECD survey instrument replicated in the Annex.

Additionally, it is important to monitor market developments to identify gaps and needs in regulatory frameworks. Regular monitoring initiatives can help jurisdictions to identify suspicious patterns in the market. As mentioned in the FATF Guidance, jurisdictions should develop a mechanism to collect data regularly and share this with international bodies to contribute to the development of a holistic strategy (FATF, 2019).

Monitor advertising, especially via online channels, to understand how cryptoassets are promoted and watch for misleading representations.

Taking into consideration the prominent role of influencers and advertising, in particular online advertising and social media, policy makers and oversight authorities should consider efforts to monitor such activity, both in terms of identifying potentially misleading representations but also to help assess the scale of advertisements directed at financial consumers and the ways in which they react to such marketing.

Consider the adequacy of disclosure standards or requirements for whitepapers.

The research revealed that not all retail investors read whitepapers for ICOs and among those who do, some acknowledge that they do not understand them well or at all.

Whitepapers are not currently subject to approval by regulatory authorities in some jurisdictions. Policy makers should therefore consider the adequacy of disclosure standards or requirements for whitepapers to assist understanding of them.
At the same time, it is important to recognise the limitations of disclosure-based approaches alone to ensure financial consumers understand risks associated with complex financial products and services.

**Engage in international cooperation.**

Working with policy makers in other jurisdictions to ensure a coordinated and considered approach to cryptoassets that takes into account national specificities is important. Such cooperation can ensure that all policy makers are aware of current risks and emerging challenges, can share good practices and develop solutions, such as guidance or standards where appropriate, to tackle common issues or establish consistent approaches.

**Share information with other regulatory agencies, both at a national and international level.**

Given the rapidly evolving and cross-border nature of cryptoassets, information sharing, both at a national and international level, is important. This may include information about a whole range of factors related to cryptoassets, from newly registered FinTech entities, fraudulent activities, or abusive practices to investor attitudes and behaviour, and data about the nature and frequency of complaints against firms operating in the crypto space.
References


OECD-ASEAN (2019 (forthcoming)). Alternative Financing Instruments for ASEAN SMEs.


## Annex. OECD survey instrument

### Part 0. Screening

<table>
<thead>
<tr>
<th>0-1</th>
<th>Do you or any of your family members work or operate a business in any of the following industries? [M]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Advertising agency</td>
</tr>
<tr>
<td></td>
<td>b. Market research agency</td>
</tr>
<tr>
<td></td>
<td>c. Public relations or media firm</td>
</tr>
<tr>
<td></td>
<td>d. Journalism/ broadcasting</td>
</tr>
<tr>
<td></td>
<td>e. Investment banking/ fund management</td>
</tr>
<tr>
<td></td>
<td>f. None of the above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0-2</th>
<th>Please indicate your gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Male</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0-3</th>
<th>Please enter your age</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>0-3a</th>
<th>Scripter to auto-code age in 0-3 into the following categories [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. 18-24 years</td>
</tr>
<tr>
<td></td>
<td>b. 25-34 years</td>
</tr>
<tr>
<td></td>
<td>c. 35-44 years</td>
</tr>
<tr>
<td></td>
<td>d. 45-54 years</td>
</tr>
<tr>
<td></td>
<td>e. 55+ years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0-4</th>
<th>Which one of the following best describes your employment status? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Employed full time</td>
</tr>
<tr>
<td></td>
<td>b. Employed part time</td>
</tr>
<tr>
<td></td>
<td>c. Self-employed</td>
</tr>
<tr>
<td></td>
<td>d. Not employed, but looking for work</td>
</tr>
<tr>
<td></td>
<td>e. Not employed and not looking for work</td>
</tr>
<tr>
<td></td>
<td>f. Retired</td>
</tr>
<tr>
<td></td>
<td>g. Student</td>
</tr>
<tr>
<td></td>
<td>h. Homemaker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0-5</th>
<th>What is your monthly household income (inclusive of any transfer income, work and non-work income (e.g. rental), welfare and allowance from family members, etc.)? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Less than RM 3,000</td>
</tr>
<tr>
<td></td>
<td>b. RM 3,000 – RM 4,999</td>
</tr>
<tr>
<td></td>
<td>c. RM 5,000 – RM 6,999</td>
</tr>
<tr>
<td></td>
<td>d. RM 7,000 – RM 9,999</td>
</tr>
<tr>
<td></td>
<td>e. RM 10,000 – RM 11,999</td>
</tr>
<tr>
<td></td>
<td>f. RM 12,000 and above</td>
</tr>
<tr>
<td></td>
<td>g. Don’t Know/ Not Sure</td>
</tr>
<tr>
<td></td>
<td>h. Prefer not to answer</td>
</tr>
</tbody>
</table>
### Part 1. Digital or cryptocurrencies

#### 1-1 Which of the following statements applies to you? [S]
- a. I have heard of digital or crypto- currencies such as Bitcoin or Ethereum
- b. I have never heard of digital or crypto- currencies

#### 1-2 Which of the following statements applies to you? [S]
- a. I currently hold digital or crypto- currencies (such as Bitcoin or Ethereum)
- b. I have previously held digital or crypto- currencies, but no longer do
- c. I have never held digital or crypto- currencies

#### 1-3 Which of the following statements applies to you? [S]
- a. I would like to hold digital or crypto- currencies in the future
- b. I would not want to hold any digital or crypto- currencies in the future
- c. I am not sure at this point
1-4 How did you first hear of digital or crypto-currencies? [Please select one answer only] [S]
   a. Printed article (e.g. newspaper, magazines etc.)
   b. Online article (e.g. blog, news website etc.)
   c. TV or radio programme
   d. Posts made by connections on social media platforms (e.g. Facebook, Instagram, Twitter, LinkedIn, YouTube etc.)
   e. Online advertisements (e.g. websites, social media etc.)
   f. Offline advertisements (e.g. TV, radio, print, billboards etc.)
   g. General conversations with non-experts like friends, family and colleagues
   h. General conversations with financial or digital experts
   i. Investment guidance from a professional (e.g. advisor/accountant)
   j. Other, please specify:
   k. None of the above

1-5 How well do you think you understand digital or crypto-currencies like Bitcoin or Ethereum? [S]
   a. Very well
   b. To some extent
   c. Not very well
   d. Not at all

1-6 What rate of return (positive or negative) do you think investors will make on digital or crypto-currencies in the next twelve months? [S]
   a. _____ % [Free response – up to 1 decimal place allowed]
   b. Don’t know

1-6a Did you invest in digital or crypto-currencies based on the advice of someone else? [S]
   a. Yes
   b. No

1-6b Who gave you the advice? [M]
   a. Professional adviser e.g. financial adviser or accountant
   b. Expert in block chain technology or related technologies
   c. Family member or friend
   d. Work colleague
   e. Other, please specify:

1-9 How did you acquire the digital or crypto-currencies you currently hold/previously held? [M]
   a. I bought them at a dedicated kiosk (e.g. an ATM-like machine)
   b. I bought them on an online platform (e.g. like Coinbase, Binance, Bit-Z, Okex)
   c. I mined them
   d. I received them in payment for goods or services
   e. They were transferred to me from family or friends
   f. Other, please specify:
### 1-7 Why did you become a digital/crypto currency holder?
Please select up to a maximum of 3 reasons only. [M]

[MINIMUM 1 ANSWER, MAXIMUM 3 ANSWERS]

- a. Fear of missing out
- b. Just for fun
- c. To know more about crypto-currencies
- d. To make money quickly
- e. As a long term investment or retirement fund
- f. To provide an inheritance
- g. To support initiatives that build on blockchain technology
- h. To use as a means of payment for online purchases
- i. To make domestic or cross-border money transfers
- j. To diversify my overall investment portfolio
- k. Other, please specify:
- l. None of the above [S]

### 1-8 Why do you NOT hold digital or crypto- currencies at the moment?
Please select up to a maximum of 3 reasons only. [M]

[MINIMUM 1 ANSWER, MAXIMUM 3 ANSWERS]

- a. I cannot afford to do so at the moment
- b. They are too high risk
- c. I do not know enough about them
- d. I do not believe that they are properly regulated
- e. I find other types of investment more attractive
- f. I am not interested in digital or crypto- currencies
- g. I am not interested in investing at the moment
- h. I am concerned about the fluctuating price
- i. I need the money for other things
- j. Other, please specify:
- k. None of the above [S]

### 1-10 Approximately what percentage of your overall portfolio is invested in digital or crypto- currencies, at current value? [S]

- a. Less than 5%
- b. At least 5% but less than 10%
- c. At least 10% but less than 25%
- d. At least 25% but less than 50%
- e. At least 50% but less than 100%
- f. 100%

### 1-11 For digital or crypto- currencies you currently hold or have previously held, which of the following best describes how you paid for them? [M]

- a. I paid out of my normal monthly budget
- b. I sold (some of) my assets or investments
- c. I used (some of) my savings
- d. I put the cost onto a credit card
- e. I took out a new loan from a financial institution
- f. I borrowed from friends or family
- g. Other, please specify:
<table>
<thead>
<tr>
<th>1-12</th>
<th>How long have you held digital or crypto-currencies for? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Less than 1 month</td>
</tr>
<tr>
<td>b.</td>
<td>Between 1 to 6 months</td>
</tr>
<tr>
<td>c.</td>
<td>Between 6 to 12 months</td>
</tr>
<tr>
<td>d.</td>
<td>Between 1-2 years</td>
</tr>
<tr>
<td>e.</td>
<td>Between 2-3 years</td>
</tr>
<tr>
<td>f.</td>
<td>More than 3 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-13a</th>
<th>Has the value of your digital or crypto-currencies ever fallen below the price you paid? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Yes</td>
</tr>
<tr>
<td>b.</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-13b</th>
<th>Thinking about the last time when the price of your digital or crypto-currencies fell below the price you paid, what did you do? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I bought more of those digital/crypto currencies</td>
</tr>
<tr>
<td>b.</td>
<td>I sold those digital/crypto currencies</td>
</tr>
<tr>
<td>c.</td>
<td>I did not take any action</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-13c</th>
<th>Still thinking about this, to what extent were you worried about your future financial security when the price of your digital or crypto-currencies fell below the price you paid? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Not worried at all</td>
</tr>
<tr>
<td>b.</td>
<td>Slightly worried</td>
</tr>
<tr>
<td>c.</td>
<td>Very worried</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-14</th>
<th>Which of the following best describes the current value of your digital or crypto-currencies compared with the purchase price? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>My digital or crypto-currencies have increased in value</td>
</tr>
<tr>
<td>b.</td>
<td>My digital or crypto-currencies have decreased in value</td>
</tr>
<tr>
<td>c.</td>
<td>My digital or crypto-currencies have lost all value</td>
</tr>
<tr>
<td>d.</td>
<td>I do not track the value of my digital or crypto-currencies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-15</th>
<th>Can you afford to lose the money you have invested in digital or crypto-currencies? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Yes</td>
</tr>
<tr>
<td>b.</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-16</th>
<th>Thinking about the next 12 months, how likely are you to.... ROW OPTIONS [S-ROW]:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Buy more of the digital or crypto-currencies you already hold</td>
</tr>
<tr>
<td>b.</td>
<td>Buy different digital or crypto-currencies</td>
</tr>
<tr>
<td>c.</td>
<td>Sell or spend some of your digital or crypto-currencies</td>
</tr>
<tr>
<td>d.</td>
<td>Sell or spend all of your digital or crypto-currencies</td>
</tr>
</tbody>
</table>

COLUMN OPTIONS: |
| a.   | Very unlikely                                                                            |
| b.   | Unlikely                                                                                 |
| c.   | Not sure                                                                                 |
| d.   | Likely                                                                                   |
| e.   | Very likely                                                                              |
1-18 To what extent do you agree or disagree with the following statements

- Digital or crypto-currencies are more valuable as an investment than as a means of payment
- Digital or crypto-currencies can easily be converted into cash
- The Government regulates digital or crypto-currencies
- Digital or crypto-currencies facilitate illegal activities
- It is a good time to buy digital or crypto-currencies

COLUMN OPTIONS:

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

1-19 To what extent do you agree or disagree with the following statement

ROW OPTION [S-ROW]

- I am fully aware of how to protect my personal key, digital wallet, seed phrase and other access information relating to my digital or crypto-currencies against fraud or theft

COLUMN OPTIONS:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly Agree

1-20 In which of the following ways have you protected your personal key, digital wallet, seed phrase and other access information relating to your digital or crypto-currencies against fraud or theft? [M]

- I have password protected all devices
- I have used offline storage devices, e.g. encrypted flash drive
- I have written down my password and/or seed phrase
- I have used 2 factor authentication for access
- I use multiple digital wallets
- Other, please specify:

Part 2. ICOs

2-1 Which of the following statements applies to you? [S]

- I have heard of Initial Coin Offerings, or ICOs
- I have never heard of Initial Coin Offerings, or ICOs

2-2 Which of the following statements applies to you? [S]

- I currently hold investments in ICOs (Initial Coin Offerings)
- I have previously held investments in ICOs, but no longer do
- I have never held investments in ICOs

2-3 Which of the following statements applies to you? [S]

- I want to hold investments in ICOs in the future
- I do not want to hold investments in ICOs in the future
- I am not sure at this point
### 2-4 How did you first hear of ICOs? [Please select one answer only] [S]

- a. Printed article (e.g. newspaper, magazines etc.)
- b. Online article (e.g. blog, news website etc.)
- c. TV or radio programme
- d. Posts made by connections on social media platforms (e.g. Facebook, Instagram, Twitter, LinkedIn, YouTube etc.)
- e. Online advertisements (e.g. websites, social media etc.)
- f. Offline advertisements (e.g. TV, radio, print, billboards etc.)
- g. General conversations with non-experts like friends, family and colleagues
- h. General conversations with financial or digital experts
- i. Investment guidance from a professional (e.g. advisor/accountant)
- j. Other, please specify:
- k. None of the above

### 2-4a Did you invest in ICOs based on the advice of someone else? [S]

- a. Yes
- b. No

### 2-4b Who gave you the advice? [M]

- a. Professional adviser e.g. financial adviser or accountant
- b. Expert in block chain technology or related technologies
- c. Family member or friend
- d. Work colleague
- e. Other, please specify:

### 2-4c How well do you think you understand Initial Coin Offerings, or ICOs? [S]

- a. Very well
- b. To some extent
- c. Not very well

### 2-5 Why have you invested in ICOs? 

Please select up to a maximum of 3 answers only. [M] [MINIMUM 1 ANSWER, MAXIMUM 3 ANSWERS]

- a. Fear of missing out
- b. Just for fun
- c. To know more about ICOs
- d. To make money quickly
- e. As a long term investment or retirement fund
- f. To provide an inheritance
- g. To support initiatives that build on blockchain technology
- h. To diversify my overall investment portfolio
- i. I believe in the project making the Offer
- j. Other, please specify:
- k. None of the above [S]
### 2-6 Why do you **NOT** hold investments in ICOs at the moment? Please select up to a maximum of 3 answers only. [M] [MINIMUM 1 ANSWER, MAXIMUM 3 ANSWERS]

- a. I cannot afford to do so at the moment
- b. They are too high risk
- c. I do not know enough about them
- d. I do not believe that they are properly regulated
- e. I find other types of investment more attractive
- f. I am not convinced by any of the white papers that I have read
- g. I am not interested in Initial Coin Offerings
- h. I am not interested in investing
- i. I am concerned about the fluctuating price
- j. I need the money for other things
- k. Other, please specify:
- l. None of the above [S]

### 2-7 How many ICOs have you invested in? [S]

- a. One
- b. Two
- c. Three
- d. More than three but less than ten
- e. More than ten
- f. Don’t know

### 2-8 Approximately what percentage of your overall portfolio is invested in ICOs? [S]

- a. Less than 5%
- b. At least 5% but less than 10%
- c. At least 10% but less than 25%
- d. At least 25% but less than 50%
- e. At least 50% but less than 100%
- f. 100%

### 2-10 To what extent do you agree or disagree with the following statements? [S-ROW]:

- a. ICO investments are a good way for small investors to support innovative companies
- b. Investments in ICOs can easily be sold
- c. The Government regulates ICOs
- d. ICOs facilitate illegal activities
- e. It is a good time to buy ICOs

**COLUMN OPTIONS:**
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly Agree

### 2-11 Thinking about the most recent ICO you have invested in, did you read the ICO (Initial Coin Offering) whitepaper in making your investment decision? [S]

- a. Yes
- b. No
<table>
<thead>
<tr>
<th>2-12</th>
<th>Which parts of the white paper did you read? [M]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Abstract/Executive Summary</td>
</tr>
<tr>
<td>b.</td>
<td>Business idea</td>
</tr>
<tr>
<td>c.</td>
<td>Team</td>
</tr>
<tr>
<td>d.</td>
<td>Technical implementation</td>
</tr>
<tr>
<td>e.</td>
<td>ICO Roadmap</td>
</tr>
<tr>
<td>f.</td>
<td>ICO token sale details</td>
</tr>
<tr>
<td>g.</td>
<td>Other, please specify:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-13a</th>
<th>How easy was the white paper to understand? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Very easy</td>
</tr>
<tr>
<td>b.</td>
<td>Somewhat easy</td>
</tr>
<tr>
<td>c.</td>
<td>Not easy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-13b</th>
<th>How useful do you think the white paper was in terms of helping you to understand all that you needed to know about the ICO? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Very useful</td>
</tr>
<tr>
<td>b.</td>
<td>Somewhat useful</td>
</tr>
<tr>
<td>c.</td>
<td>Not useful</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-14</th>
<th>Thinking about the most recent ICO you have invested in, which of the following best describes how you paid? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I paid out of my normal monthly budget</td>
</tr>
<tr>
<td>b.</td>
<td>I sold (some of) my assets or investments</td>
</tr>
<tr>
<td>c.</td>
<td>I used (some of) my savings</td>
</tr>
<tr>
<td>d.</td>
<td>I put the cost onto a credit card</td>
</tr>
<tr>
<td>e.</td>
<td>I took out a new loan from a financial institution</td>
</tr>
<tr>
<td>f.</td>
<td>I borrowed from friends or family</td>
</tr>
<tr>
<td>g.</td>
<td>Other, please specify:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-15</th>
<th>Thinking about the most recent ICO you have invested in, which of the following best describes its current value? [S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>It has increased</td>
</tr>
<tr>
<td>b.</td>
<td>It has decreased</td>
</tr>
<tr>
<td>c.</td>
<td>It has reduced to zero</td>
</tr>
<tr>
<td>d.</td>
<td>I do not track the value of my ICO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-17a</th>
<th>ASK 2-17a when:</th>
</tr>
</thead>
<tbody>
<tr>
<td>‒</td>
<td>Question 2-2=b' OR ‒</td>
</tr>
</tbody>
</table>

**AUTOCODE IF:**

| ‒ | Question 2-2=a' AND Question 2-7=a,' b,c,d,e,f AND Question 2-15=b' or c then AUTOCODE response in 2-17a=a(Yes) |
| ‒ | Question 2-2=a' AND Question 2-7=a' AND Question 2-15=a' or d then AUTOCODE response in 2-17a=b(No) |

Has the value of your ICO investment ever fallen below the price you paid? [S] |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Yes</td>
</tr>
<tr>
<td>b.</td>
<td>No</td>
</tr>
<tr>
<td>c.</td>
<td>Don’t know/Not sure</td>
</tr>
</tbody>
</table>
Thinking about the last time when the value of your ICO investment fell below the price you paid, what did you do? [S]

- a. I tried to sell my investment as quickly as I could
- b. I did not take any action

Still thinking about this, to what extent were you worried about your future financial security when the value of your ICO investment fell below the price you paid? [S]

- a. Not worried at all
- b. Slightly worried
- c. Very worried

**Part 3. General**

To what extent do the following statements describe you?

ROW OPTIONS [S-ROW] [ROTATE STATEMENTS]

- a. I am prepared to risk some of my own money when saving or making an investment
- b. I am satisfied with my present financial situation
- c. I tend to live for today and let tomorrow take care of itself
- d. I prefer to use financial companies that have a strong ethical stance
- e. I enjoy learning about new ways of using technology such as smart phones
- f. I am well informed about financial matters
- g. Because of my money situation, I feel like I will never have the things I want in life

COLUMN OPTIONS

1. Describes me very well
2. Describes me somewhat
3. Does not describe very well

Do you think the following are typically true or false?

ROW OPTIONS [S-ROW] [ROTATE STATEMENTS]

- a. An investment with a high return is likely to be high risk
- b. It is higher risk to invest in global markets than national markets
- c. High inflation means that the cost of living is increasing rapidly
- d. It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares

COLUMN OPTIONS

1. TRUE
2. FALSE
3. DON'T KNOW
### Part 4. Additional demographics

| 4-1 | Where do you permanently reside in [INSERT MARKET]? [S]  
LIST OF 20 BIGGEST CITIES IN EACH MARKET PLUS  
“Other city/region” |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4-2</td>
<td>Which one of the following best describes your education status? [S]</td>
</tr>
</tbody>
</table>
|     | a. No formal education  
|     | b. Primary/Elementary School  
|     | c. Secondary School / High School  
|     | d. University Undergraduate (Bachelor’s)  
|     | e. University Postgraduate (Master)  
|     | f. University Postgraduate (PhD)  
|     | g. Others (e.g. Junior College, Pre-University, Vocational, Academy) |
| 4-3 | Which of the below statements best describes your housing arrangement?  
|     | a. I personally own my house/apartment  
|     | b. I rent my house/apartment  
|     | c. I do not rent nor own my house/apartment (e.g. living with parents/relatives) |