

Think Ahead

ACCA

Emerging from the shadows

The shadow economy
to 2025

About ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants. It offers business relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

ACCA supports its **188,000** members and **480,000** students in **178** countries, helping them to develop successful careers in accounting and business, with the skills required by employers. ACCA works through a network of **100** offices and centres and more than **7,110** Approved Employers worldwide, who provide high standards of employee learning and development. Through its public interest remit, ACCA promotes appropriate regulation of accounting and conducts relevant research to ensure accountancy continues to grow in reputation and influence.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. It believes that accountants bring value to economies in all stages of development and seek to develop capacity in the profession and encourage the adoption of global standards. ACCA's core values are aligned to the needs of employers in all sectors and it ensures that, through its range of qualifications, it prepares accountants for business. ACCA seeks to open up the profession to people of all backgrounds and remove artificial barriers, innovating its qualifications and delivery to meet the diverse needs of trainee professionals and their employers.

In June 2016 ACCA formed a strategic alliance with Chartered Accountants Australia and New Zealand (CA ANZ). The alliance represents the voice of 788,000 members and future professional accountants around the world, who share the commitment to uphold the highest ethical, professional and technical standards.

More information is available at: www.accaglobal.com



The study draws on a combination of futures research techniques, including horizon scanning and scenario planning, alongside a projection model, to explore and provide a comprehensive view of emerging shadow economy (SE) factors and possible evolution of the SE. In addition to the above, this research also considers the role of the accountancy profession around the world as the SE evolves.



The shadow economy is a fact of life. Call it what you will – the informal economy, the underground market, the parallel economy – it represents a significant part of global economic activity. Yet it is unregulated, untaxed and unlawful, and as such represents a significant economic problem.

As governments, businesses and regulatory authorities struggle in the face of financial and economic uncertainty, it is easy to condemn those who participate in the shadow economy. Taxes go uncollected, fair wages are undercut, health and safety standards are not enforced and lives are put at risk. Such condemnation reflects a simplistic view, however, as there are a multitude of reasons driving those who act in the shadow. In many cases, it is not through choice but through necessity. Often, governments and businesses come into direct contact with the shadow economy, raising a whole host of ethical, political and economic dilemmas.

This is why it is crucial to understand what it is that drives individuals to work in the shadow economy. Governments may seek to understand it, but they inevitably approach the subject from an enforcement viewpoint. Businesses need to be aware of it, but also believe that expediency dictates the turning of a blind eye on occasion.

In a unique attempt to understand the factors that cause and fuel the shadow economy, ACCA has commissioned a study that combines futurological analyses with both expert interviews and an online survey to throw light on the shadow.

Emerging issues and socio-economic trends suggest several outcomes for the shadow economy. By 2025, individuals could be lifted out of the shadows through improvements in employment, education

and technology. In an alternative scenario, however, more workers and markets may have been drawn into the shadow – resulting in a very different world, one with rising unemployment, poverty and corruption (with reduced risk of detection), and less access to education.

What of the growth of the sharing economy, the increasing survival pressures on small businesses, the rise of independent workers, and the increasing use of virtual currencies? There are many positives in how the world of work is evolving, but there are also risks, both for the individual and for the wider society. Given the tensions between these opportunities and risks, could the future of the shadow economy lie in its acceptance as a business fact of life, in effect decriminalising and legitimising those who, for whatever reason, work in the shadow?

Professional accountants and their firms need to have a full grasp on the potential impact of the shadow economy on their clients and their own businesses, now and in the future. They can help those who wish to escape from the shadows, while also advising those who, through necessity, continue to work in the shade. Yet they must not forget their commitments to public value and trust, and to promoting responsible and ethical business behaviour. Is it possible to find a balance?

Through this study of the interrelationships of the forces that support the existence and drive the growth of the shadow economy, ACCA aims to bring nuance to a debate so often painted in black and white terms.

Boon Yew Ng

Chairman and CEO Raffles Campus Pte Ltd
and chair of ACCA's Accountancy Futures
Academy

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The shadow economy (SE) is expected to decline globally by 2025, from 23% of global GDP in 2011 to an estimated 21% in 2025.

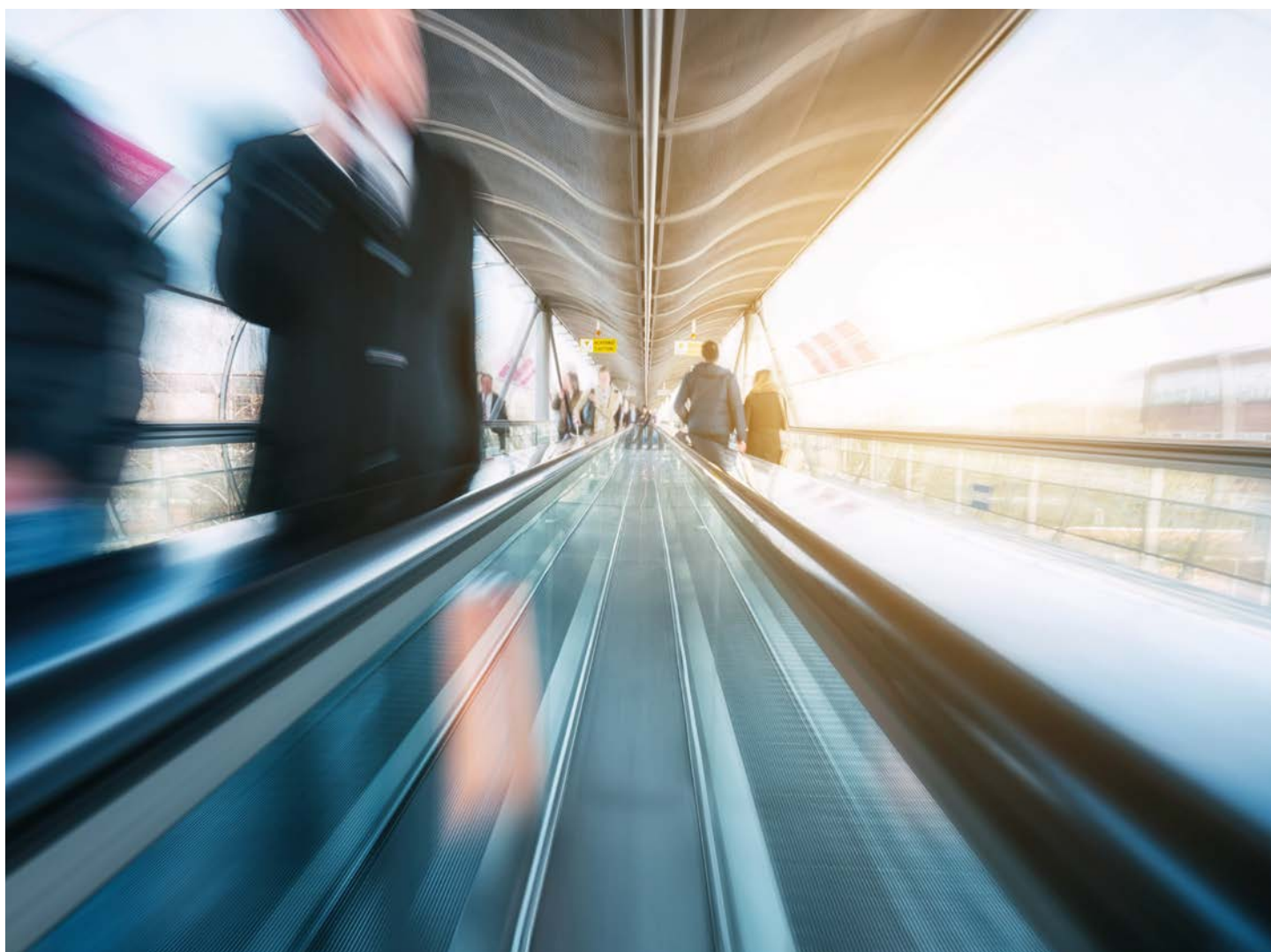
The shadow economy (SE) is expected to decline globally by 2025, from 23% of global GDP in 2011 to an estimated 21% in 2025, on the basis of a mathematical analysis of the factors behind the SE. This decline is not expected to be uniform, and a number of countries, particularly emerging market economies, are expected to experience an increase in the SE as a percentage of GDP by 2025. These are just some of the key findings from this in-depth study, which seeks to analyse the forces behind the global SE, and the latter's future impact on business activity, government policy and accountancy practices.

The survey of business leaders reveals that many claimed they will not deal with customers and clients who are operating in such murky territory. There are a range of views, suggesting that while some individuals and businesses are taking a proactive stance in dealing with the issue, others are resigned to the continuing existence of the SE and accept it as part of the business status quo.

Crucially, the prevalence of SE activity throws up considerable practical and ethical issues with which professional accountants around the world need to grapple.

The survey reveals a variety of viewpoints.

- Two-thirds (66%) of respondents believed that the SE will grow by 2025, with one-third (31%) believing that it will grow significantly.
- Only 7% said they are making efforts to improve processes to spot and handle SE activities among their clients and customers.
- Opinion was split on where responsibility lies for tackling the SE; 76% said it lies with governments, while 60% believed that it is up to individuals to refrain from and report shadow activity, and 45% wanted local communities to combat it.
- Reducing corruption was ranked as the most popular method of tackling the SE.



Professional accountants' core ethical values and their role in creating public value can help address the SE.

A global survey forms just one part of this comprehensive study. It is complemented with a detailed horizon scan outlining the current factors behind the SE, together with qualitative and quantitative analyses that shed light on its future direction and development.

This research highlights the impact of a number of potential future factors of SE.

Economic: a high tax burden, recession in the local economy and the complexity of tax systems were seen as the top three economic factors.

Business: increasing pressure on small business survival, intense market competition and the rise of the independent worker were seen as key factors of SE growth.

Socio-demographic and socio-environmental: rising unemployment, increasing poverty and limited access to education and training, along with increasing levels of corruption, a lack of 'guilty conscience' and a low risk of detection were suggested as being the top factors.

Governance: regulation detached from the lives of ordinary people was cited as a significant factor, along with declining government expenditure and increasing levels of regulation.

Science and technology: could both slow SE growth and enhance it, depending on how these developments are used. The emergence of the 'maker economy', where individuals make their own products or redesign others, for their own businesses, could increase SE activity. Equally, increasing adoption of digital currencies could create further opportunities for the SE, though some argue that use of these currencies could be used as part of a monitoring system.

ROLE OF PROFESSIONAL ACCOUNTANTS

There is no question about the ethical principles and stance that the accountancy profession should adopt. Professional accountants' core ethical values and their role in creating public value can help address the SE. Some examples are given below.

Look (monitoring) – Engaging both in direct and indirect observation of the SE.

Shape (policy advisory) – Working together with policymakers and labour market experts to help them understand the complexity of the problem and develop robust policies, guidance and procedures.

Count (measurement and modelling) – Understanding new forms of exchange emerging from developments such as the maker movement, peer-to-peer networks, the rise of sharing and barter, virtual currencies and alternative paradigms (resource-based models, the 'circular economy').¹ Detailed evaluation of what all these developments could mean at every level of the value chain in both formal and shadow economies is required.

Resolve (mediation) – Interfacing between businesses in the shadow and formal economies, helping firms in the former to manage their affairs, legalise and gradually come out of the shadows.

Automate (technology) – Finding new ways to use technology in accountancy, for example championing new ideas and software for monitoring and measuring the SE, such as distributed ledgers, which make it very difficult for a single rogue entity to disrupt the system.

Inform (education) – The accountancy profession and governments can collaborate to develop education offerings and ideas on incentives for workers and firms to formalise their economic activity.

While the SE provides opportunities for the profession in helping individuals shift to the formal economy, there are, nonetheless, reputational issues and personal risks as well. Either way, it is clear the profession should remain close to the heart of this ethical and practical debate around the world.

¹ A circular economy is an economy that does not create waste.

The SE, for the purposes of this study, is defined as: the market-based production of and payment for legal goods and services that are deliberately concealed from public authorities.

1.1 HOW BIG IS THE GLOBAL SHADOW ECONOMY (SE)?

In 2011 Robert Neuwirth estimated that the SE was worth US\$10 trillion and employed 1.8bn people. In fact, if the SE were a state, it would be the second-largest economy in the world (Neuwirth 2011).

By its nature, it may not be possible to measure with any degree of certainty the size and extent of the SE, but there is no doubt of its existence. In response to this, ACCA presents in this report the results of a study on the future of the SE, sometimes referred to as the 'informal' economy.

The study draws on a combination of futures research techniques, including horizon scanning and scenario planning, alongside a projection model, to explore and provide a comprehensive view of emerging SE factors and possible evolution of the SE.

In addition to the above, this research also considers the role of the accountancy profession around the world as the SE evolves. How could professional accountants be able to influence those seeking to come in from the shadows and how can ethics be balanced with expediency?

1.2 THE SHADOW ECONOMY (SE)

What is the SE? Is it unlawful, unregulated and untaxed?

In a 2012 World Bank publication the SE is described as: 'Few of the phenomena that occupy the time of governments, economists, and others in the business of crafting and executing policy are as ambiguously defined and as difficult to measure as the shadow economy' (Packard et al. 2012).

The Organisation for Economic Cooperation and Development (OECD) defines informal employment, which is the primary component of the SE, as 'employment engaged in the production of legal goods and services where one or more of the legal requirements usually associated with employment (such as registration for social security, paying taxes or complying with labour regulations) are not met' (OECD 2008). SE experts concur with this understanding while offering a broader definition, according to which the SE comprises '...those economic activities and the income derived from them that circumvent or otherwise avoid government regulation, taxation or observation' (Schneider et al. 2010). Schneider and his colleagues identify the following core reasons for engaging in the SE:



The gradual elimination of cash and the parallel automation of transactions may make it easier to track informal flows and ever harder for those in the informal economy to bypass the system.

- to avoid payment of income, value added or other taxes
- to avoid payment of social security contributions
- to avoid having to meet certain legal labour market standards, such as minimum wages, maximum working hours, and safety standards
- to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms (Schneider et al. 2010)

On the basis of the above definitions, and for the purposes of this study, the SE is defined as:

'The market-based production of and payment for legal goods and services that are deliberately concealed from public authorities.'

1.3 A RAPIDLY EVOLVING ECONOMIC BACKDROP

Since the global financial crisis there has been great uncertainty over future possible trajectories for the global economy. A combination of economic power shifts, political and financial uncertainty, new economic thinking and paradigms, the uncertain impact of technology-led disruption and widespread market transformation have all contributed to a volatile outlook.

As a result of these disruptive forces, there are many possible scenarios for how the next decade will develop. Over the short term, these changed conditions may create more SE activity as limited employment opportunities and increased pressure on household and personal finances could bolster the attractiveness of entering the 'underground market'.

At the same time, the world is faced with a paradox. As Jütting and De Laiglesia outline in their report for the OECD: '... informal employment is the norm, not the exception, in many parts of the world... Informality is thus a reality for two-thirds of the global labour force' (Jütting and De Laiglesia 2009). Given that, for many, life in the SE is a normal and ordinary facet of day-to-day living – are there any reasons why this should change, and as a practice will it simply extend into the foreseeable future?

Simultaneously, the evolving global economic and business landscape adds complexity to this picture. The gradual elimination of cash and the parallel automation of transactions may make it easier to track informal flows and ever harder for those in the informal economy to bypass the system. Shifts in global markets are accompanied by new business models with different routes through which financial flows can take place. Then again, decentralised cybercurrencies such as Bitcoin create the potential for financial transactions to take place electronically outside the control or purview of central authorities and regulators.

Employment patterns are also changing, with an increase in the number of people working on part time or 'zero hours' contracts and selling their services through 'capacity recyclers' such as the Uber taxi network and the TaskRabbit domestic task services. This is compounded with an emerging global middle-class engagement with consumerism, which unlocks opportunities for creating illicit versions of legal products. Finally, new technologies such as 3D printing² open up the potential for people to join the 'maker community' and manufacture goods in their own homes and potentially bypass formal marketing and/or sales channels and the tax system. Collectively, these forces suggest that the SE will become ever more complex to monitor, measure and potentially control.

2 3D printing is a process that produces three-dimensional objects in which successive layers of material are laid down, through the use of computer control, to create the object. The process is also referred to as additive manufacturing.

Society today expects an ethical approach by those conducting business and this is expected to continue.

Against this backdrop of rapid and continuous change, this report represents an ambitious attempt to combine both quantitative and qualitative explorations of the emerging issues and factors affecting the SE. The goal is to highlight different scenarios showing how these emerging shifts could evolve, to quantify their potential impact and to identify the possible implications for governments, business and the accountancy profession.

Society today expects an ethical approach by those conducting business and this is expected to continue. While attitudes towards ethics, and indeed what actually constitutes ethical behaviour, can vary both within and across borders, it is clear that, as a global profession, accountancy can play a key role in defining such behaviour, while balancing this with the practical day-to-day nature of business. Yet accountants must not forget their commitments to public value and trust, and to promoting responsible and ethical business behaviour.

1.4 THE APPROACH

The project involved two teams working in tandem and the results are reported in the following sections. The futures research team (Fast Future Research) adopted a primarily qualitative approach consisting of horizon scanning for emerging issues and potential future factors, using literature reviews and desk research, interviewing a range of experts, conducting an exclusive global online survey to test ideas on the possible future development of the SE, and 'soft' forecasting using combinatorial narrative scenario-building and analysis techniques.

The econometric research team (Ceyhun Elgin and Oguz Oztunali) pursued a quantitative approach using mathematical analysis to model variable relationships affecting the SE to produce ranges of quantitative forecasts. Through the futures research, additional possible factors were identified and quantified where possible for inclusion in the econometric model.

1.5 REPORT STRUCTURE

This report is broken down into the following sections.

Section 2: Shadow economy: forecasts to 2025 – provides projections of how the SE could evolve up to 2025, both globally and for 28 selected countries on the basis of both existing variables (included in past models) and a selection of the emerging factors that could have a potential impact on its future evolution. Appendix A provides the detail behind the mathematical approach.

Section 3: Key factors shaping the shadow economy to 2025 – introduces a range of existing and potential emerging factors of the SE that were identified through the research process and presents the results of the ranking and evaluation of their impact via a global survey and expert interviews. In addition, by adopting the futures research techniques of causal layered analysis and scenario planning, this section further explores the interplay between established and emerging factors over the period to 2025 to create a range of possible futures. This section concludes with four scenarios for citizens, business, government and the accountancy profession to consider.

Section 4: Impact and management of the shadow economy – explores the implications for business, government and the accountancy profession.

The final section, **Section 5**, provides the recommendations for the accountancy profession and a summary of key lessons learned and transferable insights, and highlights key ideas emerging for governments on the future management of the SE.

The shadow economy (SE) is expected to decline globally by 2025, from 23% of global GDP in 2011 to an estimated 21% in 2025.

2.1 SE FORECASTS TO 2025

Overall, the size of the SE is expected to decline globally by 2025, from 23% of global GDP in 2011 to an estimated 21% in 2025 – but the rate of the decline is not the same in all countries. These forecasts are based on existing factors included in past models and, more importantly, emerging factors that could have an impact on the future evolution of the SE (Elgin, and Oztunali 2012; PRS Group n.d.; World Bank n.d.).

The SE forecasts outlined in Table 2.1 estimate the size of the SE to 2025; they are based on a novel methodology for estimating the SE size. The approach relies on microeconomic foundations and is therefore not based on ad hoc statistical specifications and assumptions. Another feature of the adopted methodology is its reliance on the use of several observed macroeconomic factors to estimate the size of the SE. This allows the construction of annual forecasts of the size of the SE in various countries up to 2025, as there are estimates of these observed variables constructed by several international institutions. Full details can be found in Appendix A.

These forecasts rely on a two-sector (formal and shadow economies) dynamic general equilibrium (DGE) model.³ Table 2.1 reports forecasted values of SE size as percentages of GDP figures for 28 selected countries as well as a GDP-weighted average for the world as a whole.

It is worth noting that all the countries where the SE seems to be neither declining nor stagnating are emerging markets; these countries could significantly improve

their institutional quality and governance (discussed in Section 3). The main reason for this differential in the SEs is the striking difference of the evolution of institutional quality. Countries that can improve their institutional framework in the period to 2025 will benefit most from declining SEs, whereas countries with limited institutional capacity will suffer from large SEs.

The ranking of the top three current factors which determines a country's SE size are identified in Table 2.2. For the world economy as a whole, bureaucratic quality, corruption control and GDP per capita are the most important factors.

Nonetheless, the relative importance of each variable changes from country to country. For example, persistent unemployment, low bureaucratic quality and inefficient provision of law and order are among the three main causes of expected increases in SE size in South Africa from 2011 to 2025, while the inability to reduce widespread corruption, presence of a non-democratic political system and the expectation of substandard GDP growth rates are expected to lead to increasing SE size in Azerbaijan.

The forecasted global SE (GDP weighted average) is projected to decrease by 7.36%, from 23.1% in 2011 to 21.4% in 2025; by improving bureaucratic quality, reducing corruption and increasing GDP per capita, the size of the SE can be further reduced.

Table 2.3 estimates the value, in local currency, the SE for each of the 28 countries. These are calculated based on International Monetary Fund's 2016 GDP (nominal) figures and the estimated size of the SE for each country.



³ Dynamic general equilibrium modelling (DGE) is a branch of applied general equilibrium theory that constitutes the workhorse of modern macroeconomics. Like other general equilibrium models, this model aims to describe the behaviour of the economy as a whole by analysing the interaction of microeconomic decisions.

Table 2.1: Forecasts of the size of shadow economies (% GDP) in 28 economies

COUNTRY	2011	2016	2017	2020	2025	PERIOD AVERAGE (2011–25)
 Global	23.1	22.66	22.5	22.11	21.39	22.35
 Australia	12.82	11.4	11.09	10.24	8.89	10.85
 Azerbaijan	47	67.04	66.12	56.73	58.38	58.05
 Brazil	35.57	34.76	34.75	34.48	34.2	34.69
 Bulgaria	30.28	29.93	29.85	29.56	29.56	30.06
 Canada	14.82	14.4	14.15	13.95	13.8	14.3
 China	10.53	10.15	10.17	10.05	9.9	10.12
 Estonia	27.78	28.48	28.4	28.09	26.46	27.83
 Hong Kong	14.39	14.2	14.14	13.88	13.65	14.05
 India	18.62	17.22	16.55	15.7	13.6	16.35
 Indonesia	17.34	16.53	16.49	16.24	16.17	16.51
 Ireland	14.74	14.17	13.59	13.57	12.78	13.84
 Italy	26.24	26.32	26.5	26.56	26.37	26.37
 Japan	10.22	10.08	9.89	9.42	7.86	9.5
 Kenya	27.77	26.82	26.79	26.6	26.72	26.89
 Latvia	25.45	24.57	24.17	23.21	20.79	23.61
 Lithuania	27.87	26.27	26.01	25.54	25.79	26.23
 Malaysia	28.83	23.24	22.9	21.9	21	23.6
 Nigeria	50.73	48.37	47.7	46.99	46.11	47.93
 Pakistan	32.5	31.78	31.99	32.41	33.89	32.46
 Poland	24.59	23.68	23.42	22.95	22.13	23.33
 Russia	39.33	39.07	39.29	39.37	39.3	39.19
 Singapore	11.57	12.54	12.88	13.36	14.06	12.86
 South Africa	23.48	23.29	23.33	23.71	24.19	23.59
 Sri Lanka	39.5	37.76	37.33	36.46	34.85	37.13
 Turkey	27.43	25.72	24.95	23.85	21.55	24.7
 Ukraine	45.16	45.96	46.12	46.1	45.98	45.84
 UK	11.83	11.47	11.29	11.19	10.83	11.33
 US	8.2	7.78	7.69	7.42	6.94	7.59

Table 2.2: The top three current factors that determine the size of the SE by country






























COUNTRY	SHADOW ECONOMY FACTORS		
	1	2	3
 Global	Bureaucratic quality	Corruption control	GDP per capita
 Australia	GDP per capita	Tax burden	GDP growth
 Azerbaijan	Corruption control	Democratic accountability	GDP growth
 Brazil	Corruption control	Bureaucratic quality	Young population (% total)
 Bulgaria	Bureaucratic quality	Corruption control	Unemployment
 Canada	GDP growth	Employment growth	Unemployment
 China	GDP growth	Investment (% GDP)	Democratic accountability
 Estonia	GDP Growth	Unemployment	Population growth
 Hong Kong	Investment (% GDP)	GDP growth	Corruption control
 India	Employment growth	GDP growth	Unemployment
 Indonesia	Democratic accountability	Political stability	GDP growth
 Ireland	GDP growth	Population growth	Young population (as % of total)
 Italy	GDP growth	Unemployment	Bureaucratic quality
 Japan	GDP per capita	Young population (as % of total)	Population growth
 Kenya	Bureaucratic quality	Law and order	Ethnic tensions
 Latvia	Corruption control	Bureaucratic quality	GDP growth
 Lithuania	Bureaucratic quality	Corruption control	GDP growth
 Malaysia	GDP growth	Democratic accountability	Corruption control
 Nigeria	Corruption control	GDP per capita	Bureaucratic quality
 Pakistan	Corruption control	Democratic accountability	Ethnic tensions
 Poland	Bureaucratic quality	Corruption control	GDP per capita
 Russia	Corruption control	Democratic accountability	GDP growth
 Singapore	Democratic accountability	GDP growth	Population growth
 South Africa	Unemployment	Bureaucratic quality	Law and order
 Sri Lanka	Bureaucratic quality	Law and order	Corruption control
 Turkey	Corruption control	Unemployment	GDP per capita
 Ukraine	Bureaucratic quality	GDP per capita	Political stability
 UK	Unemployment	GDP growth	Population growth
 US	GDP growth	GDP per capita	Employment growth

Table 2.3: 2016 estimated value of the SE by country

COUNTRY	2016	2016 GDP (nominal) (local currency in billions)**	ESTIMATED WORTH OF SHADOW ECONOMY IN 2016 (local currency in billions)
 Australia	11.4	1,692.43	192.94
 Azerbaijan	67.04	59.99	40.22
 Brazil	34.76	6,266.86	2,178.36
 Bulgaria	29.93	92.64	27.73
 Canada	14.4	2,026.83	291.86
 China	10.15	74,539.62	7,565.77
 Estonia	28.48	20.916	5.96
 Hong Kong	14.2	2,489.11	353.45
 India	17.22	151,904.81	26,158.01
 Indonesia	16.53	12,406,809.80	2,050,845.66
 Ireland	14.17	265.429	37.61
 Italy	26.32	1,672.44	440.19
 Japan	10.08	537,289.40	54,158.77
 Kenya*	26.82	6,993.32	1,875.61
 Latvia	24.57	25.018	6.15
 Lithuania	26.27	38.631	10.15
 Malaysia	23.24	1,229.38	285.71
 Nigeria	48.37	102,704.41	49,678.12
 Pakistan	31.78	29,597.91	9,406.21
 Poland	23.68	1,844.34	436.74
 Russia	39.07	85,880.60	33,553.55
 Singapore	12.54	410.272	51.45
 South Africa	23.29	4,327.56	1,007.89
 Sri Lanka*	37.76	12,147.50	4,586.90
 Turkey	25.72	2,590.52	666.28
 Ukraine	45.96	2,383.18	1,095.31
 UK	11.47	1,939.64	222.48
 US	7.78	18,569.10	1,444.68

* Based on IMF estimates

** 2016 GDP (nominal) (IMF 2017)

3. Key factors shaping the shadow economy up to 2025

Extensive desk research has identified a comprehensive range of current and potential factors that are shaping or likely to shape the evolution of the SE up to 2025.

3.1 WHAT IS SHAPING THE SE?

Extensive desk research has identified a comprehensive range of current and potential factors that are shaping or likely to shape the evolution of the SE up to 2025, some of these have been identified in the previous section, Section 2.

Discussions with SE experts, economists and thought leaders and an online global survey provide insights into the significance and impact of these factors. A clear distinction needs to be drawn between the factors that are currently included and measured in estimates of the SE and those emerging factors with a potential influence in future. The 'currently observed' or 'traditional' factors typically have historic data sets that can be analysed and factored into the mathematical models and forecasts that are traditionally used to assess the scale of the SE. In contrast, the 'emerging' factors are relatively new and have not been observed systematically so as to provide an analytical dataset. Hence, their impact on the SE has been harder to assess and discuss but should not be ignored and could be significant.

The significance afforded to each factor is based on the proportion of survey responses in which it was selected.

- ▲▲▲ indicates that the factor was highlighted in 51–60% of survey responses
- ▲▲▲▲ indicates the factor was highlighted in 61–70% of survey responses
- ▲▲▲▲▲ indicates that the factor was highlighted in more than 70% of survey responses
- ▲ signifies that the factor is expected to increase the size of the SE by 2025
- ▼ signifies that the factor is expected to decrease the size of the SE by 2025

The weightings proposed are presented in the two tables:

- Table 3.1 present **currently observed** factors that are quantified and incorporated into existing SE econometric models.
- Table 3.2 introduce a range of **emerging** factors that could have a possible impact by 2025.

The existing factors are grouped into five categories: economic, socio-demographic, socio-environmental, governance and business. A sixth category of 'science and technology' was added to the evaluation of emerging SE factors.



Table 3.1: Impact of currently observed factors

ECONOMIC	IMPACT (increase or decrease the SE)
Economic downturn/recession in local economy	▲▲▲▲▲
Global economic downturn/recession	▲▲▲▲▲
High tax burden	▲▲▲▲▲
Complexity of the tax system	▲▲▲▲▲
Tax evasion/ease of tax avoidance	▲▲▲▲▲
Ease of participation in the informal economy	▲▲▲▲▲
Lack of economic dynamism	▲▲▲
Increasing globalisation	▲▲▲
Increasing capital investment in the local economy	▼▼▼
BUSINESS	
Intense market competition	▲▲▲▲
SOCIO-DEMOGRAPHIC	
Increasing poverty	▲▲▲▲▲
Rising unemployment	▲▲▲▲▲
Limited access to education/training	▲▲▲▲▲
Population growth	▲▲▲▲
Increasing urbanisation	▲▲▲
Increasing rural-to-urban migration	▲▲▲
Reduction of unemployment	▼▼▼▼▼
Poverty reduction	▼▼▼▼
Increasing access to education/training	▼▼▼▼
Growth of the middle classes	▼▼▼
SOCIO-ENVIRONMENTAL	
Lack of 'guilty conscience'	▲▲▲▲▲
Low risk of detection	▲▲▲▲▲
Increasing levels of corruption	▲▲▲▲▲
GOVERNANCE	
Declining government expenditure	▲▲▲
Increasing quality of economic governance	▼▼▼▼▼
Improving quality of public sector services	▼▼▼▼
Availability of social benefits	▼▼▼▼
Centralised tracking of transactions/invoices	▼▼▼▼
Greater employment protection legislation	▼▼▼

Table 3.2: Impact of emerging factors

ECONOMIC	IMPACT (increase or decrease the SE)
Growth of sharing/barter economy	▲▲▲▲▲
Emergence of the 'maker economy'	▲▲▲▲
Increasing labour supply	▲▲▲
Increasing use of virtual currencies, eg Bitcoin	▲▲▲
BUSINESS	
Increasing pressure on small business survival	▲▲▲▲▲
The rise of independent workers	▲▲▲
SOCIO-DEMOGRAPHIC	
Increasing racial/ethnic/tribal divisions	▲▲▲
SOCIO-ENVIRONMENTAL	
Anti-establishment ethical/philosophical standpoints	▲▲▲▲▲
Relaxed social norms and pressures	▲▲▲▲▲
Generational shift	▲▲▲
Spread of developing countries' cultures and ethics	▲▲▲
GOVERNANCE	
Growth in regulation detached from citizens' lives	▲▲▲
SCIENCE AND TECHNOLOGY	
Increasing connectivity	▲▲▲
3D printing	▲▲▲
Adoption of digital technology/applications	▲▲
Artificial Intelligence	▼▼▼
Genetic recognition	▼▼▼
Embedded invisible IT/'Internet of Things'	▼▼

Generally, economic factors are naturally expected to have a major impact on the development of the SE in the period to 2025.

3.2 KEY SHADOW ECONOMY FACTORS

Presented below is an analysis of the findings on key questions that addressed:

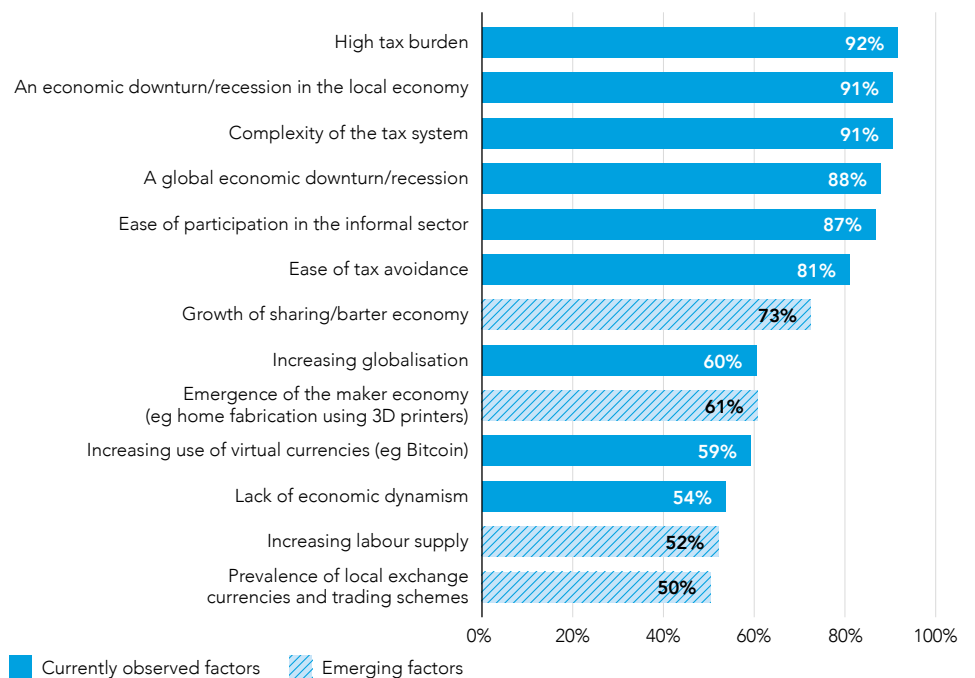
- key SE factors – economic, socio-demographic, societal and environmental, governance, business and science and technology
- expectations of the future evolution of the SE

The analyses below and presented throughout this report are based on the proportion of respondents to each question who selected the relevant option, where these formed 50% or more of all respondents. Participants were asked to assess the scale of impact of each of the listed factors on the size of the SE in their country: whether it would increase or decrease it.

Economic factors

Generally, economic factors are naturally expected to have a major impact on the development of the SE in the period to 2025. A *high tax burden* (92%), *recession in the local economy* (91%) and the *complexity of tax systems* (91%) were seen as the top three economic factors that would drive the growth of informality. Alongside these, three factors – the potential for *global economic downturn*, *ease of participation in the informal sector* and *ease of tax avoidance* – were all selected by 80% or more of participants as potentially increasing the size of the SE.

Figure 3.1: Assessment of economic factors’ potential for increasing the scale of the SE



Source: ACCA research

A range of socio-demographic factors are seen as potentially either driving the growth or retarding the development of the SE, depending on circumstances.

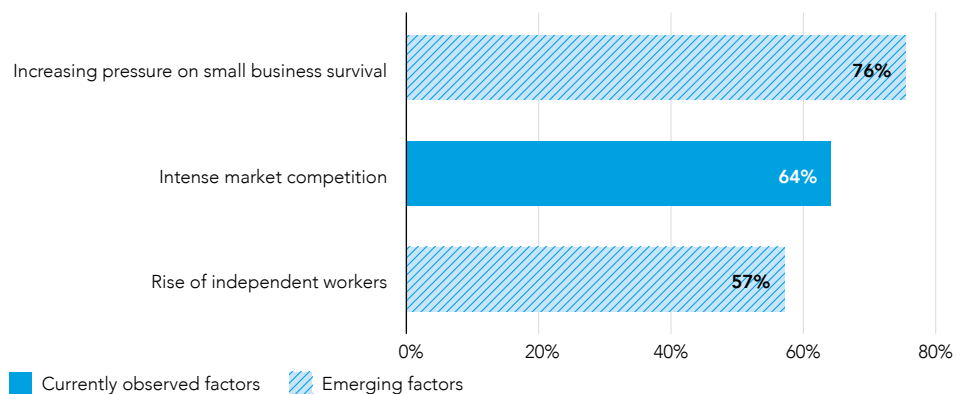
Business factors

Survey respondents saw the major forces of globalisation – shorter and faster business cycles, complex regulatory environments, automation and growing pressure for transparency – as driving behaviour in the formal sector and the pursuit of increasing enterprise scale. This intensity was also perceived to be increasing the incentive for economic actors to opt out and pursue the SE route. Hence, *increasing pressures on small business survival* (76%) and *intense market competition* (64%) were ranked as the commercial factors contributing most to SE growth. Another highlighted factor was the *rise of independent workers* (57%).

Socio-demographic factors

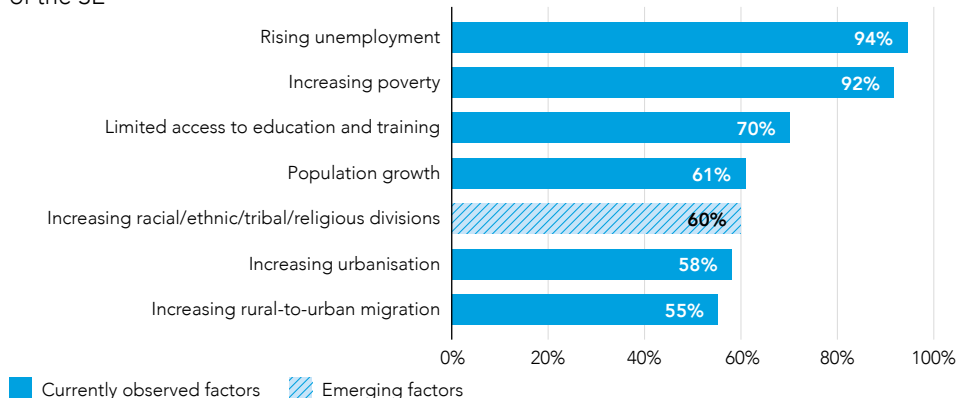
A range of socio-demographic factors are seen as potentially either driving the growth or retarding the development of the SE, depending on circumstances. Perhaps it is no surprise that the highest-rated growth factor is *rising unemployment* (94%), which many of the experts consulted suggest has a direct impact on increasing poverty (92%). In addition, 70% of the survey respondents perceived a relationship between *limited access to education or training* and the growth of informal economic activity. Unsurprisingly, the high cost of tertiary education in many Western countries as well as the lack of adequate provision in less-developed ones is seen as leaving a significant proportion of the global workforce at a major disadvantage in the competition for jobs in the formal economy.

Figure 3.2: Assessment of business factors’ potential to increase the scale of the SE



Source: ACCA research

Figure 3.3: Assessment of socio-demographic factors’ potential for increasing the scale of the SE



Source: ACCA research

For millions of people living in heavily populated and deprived areas, the SE is their world and all they know.

Socio-environmental factors

Increasing levels of corruption, lack of 'guilty conscience', low risk of detention, anti-establishment ethical or philosophical standpoints (82%) and relaxed social norms and pressures (81%) were perceived as the main societal and environmental factors that can create an environment where the SE could flourish.

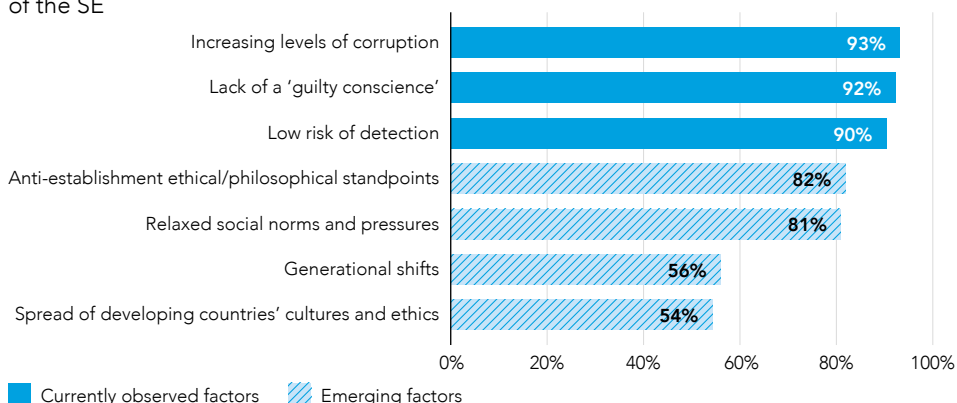
Indeed, with increasing urbanisation, expert opinion suggests that education and opportunity will lag behind population growth, thus driving an increase in the global numbers living in the most extreme conditions of poverty. For millions of people living in heavily populated and deprived areas, the SE is their world and all they know.

Governance factors

Regulation that is detached from the lives of ordinary people is a significant factor of the SE, according to 58% of survey respondents, while declining government expenditure (55%) is also seen as adding to the complexity and cost of operating within the formal sector and hence as increasing the willingness of firms and individuals to operate outside the law.

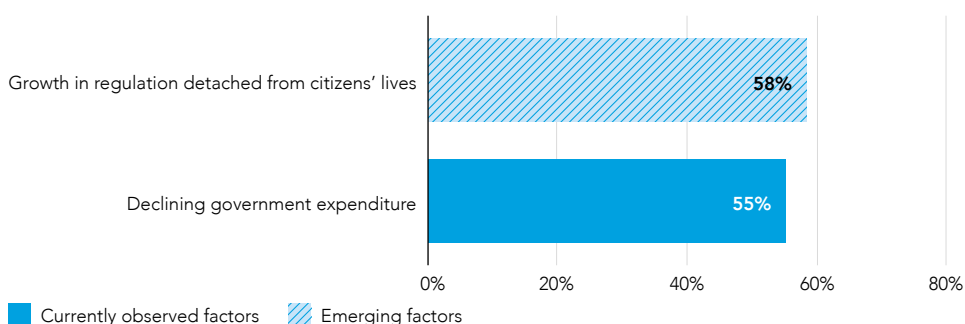
The ACCA survey, on the other hand, found that both improving the quality of both economic governance and public sector services was seen as having the biggest potential impact in decreasing the informal sector. In addition, experts also expected the impact of high-quality governance on public trust, together with that of the increase in cashless transactions on governance, to play a role.

Figure 3.4: Assessment of socio-environmental factors' potential for increasing the scale of the SE



Source: ACCA research

Figure 3.5: Assessment of governance factors' potential to increase the scale of the SE



Source: ACCA research

Although there is a growing sense that IT could enable greater monitoring and control, a number of technological advances were seen as potentially increasing the ability of actors to operate outside the system and enlarge the informal economy.

Science and technology factors

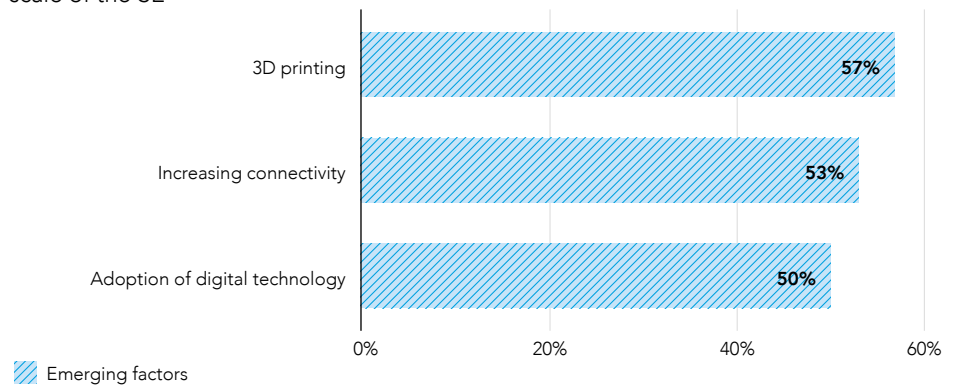
Science and technology factors' impact was treated with the greatest uncertainty – as the pace of development is such that in many cases the potential advances themselves are not yet well understood. Survey respondents and stakeholders who were interviewed, however, clearly perceived some factors as increasing or decreasing the SE.

Although there is a growing sense that IT could enable greater monitoring and control, a number of technological advances were seen as potentially increasing the ability of actors to operate outside the system and enlarge the

informal economy. A majority of respondents (57%) saw 3D printing as a potential SE growth contributor. Goods produced with the help of 3D printers could be bartered without any transaction being recorded in the formal economy.

Despite the potential for tracking and tracing electronic activity, *increasing connectivity* (53%) and *adoption of digital technology* (50%) were both seen as factors that could increase the SE by allowing easier and faster communication and transaction execution. As digital technology continues to evolve and new developments occur it may offer users a degree of anonymity.

Figure 3.6: Assessment of science and technology factors' potential for increasing the scale of the SE



Source: ACCA research



Analyses reviewed during this project suggest that growth in any of these areas will contribute to the conditions leading to, or supporting, the growth of the SE in a country.

3.3 FACTORS IN ACTION, AND SCENARIOS

How do the SE factors interact with one another? This subsection charts the interplay of various factors and then goes on to explore how they work in practice, through the examination of 16 countries.⁴ It explores how the established and emerging factors could combine and interact with each other as well as broader stakeholder considerations over the period to 2025. This is done using an analytical framework known as causal layered analysis and a scenario-planning approach that allows exploration of a range of alternative possible future evolutions of the SE.⁵

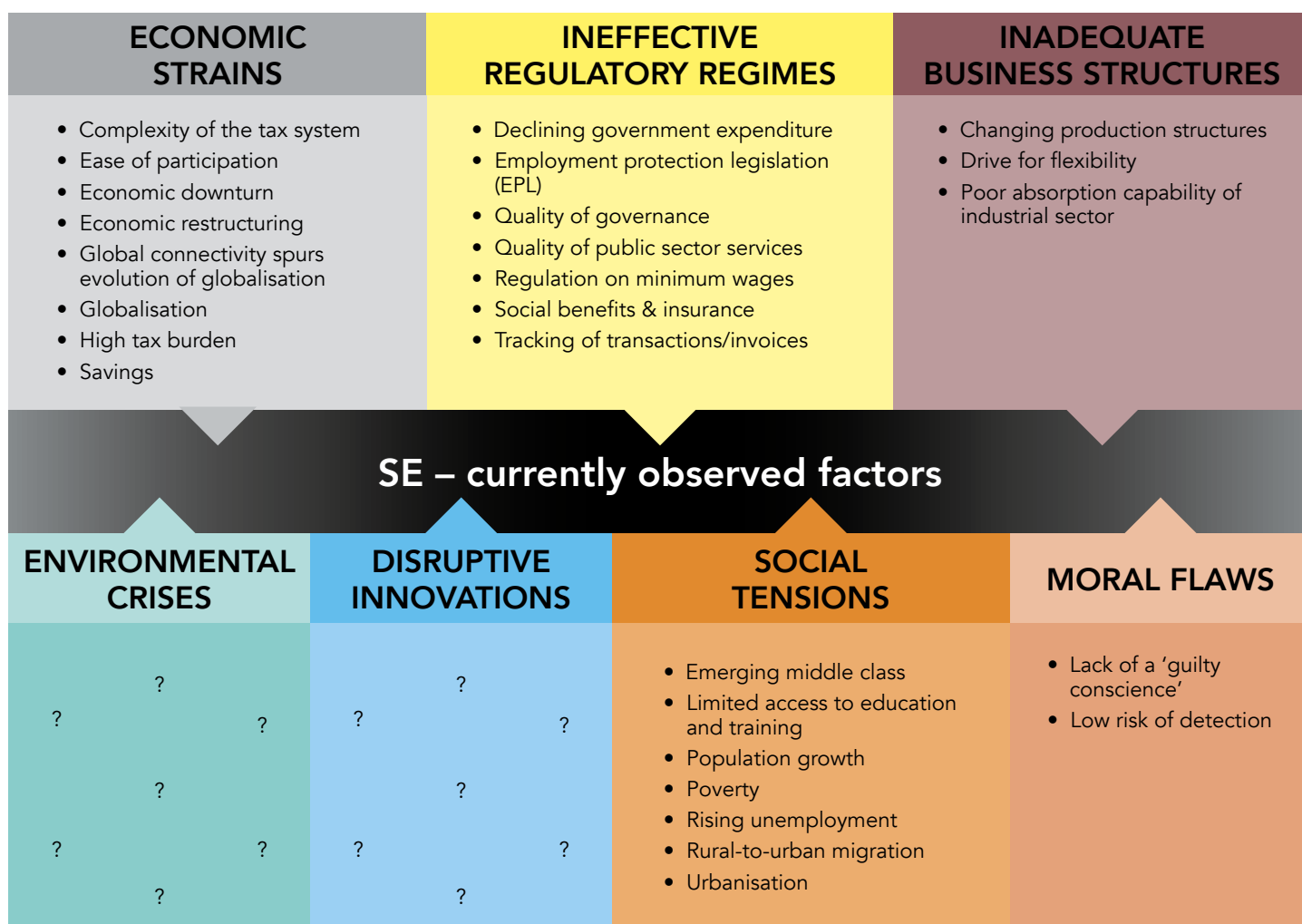
Mapping the perceived influencers and factors of the shadow economy

Research suggests that five core categories (Figure 3.7) capture most of the factors of the SE:

- economic strains
- ineffective regulatory regimes
- inadequate business structures
- moral flaws, and
- social tensions.

Analyses reviewed during this project suggest that growth in any of these areas will contribute to the conditions leading to, or supporting, the growth of the SE in a country.

Figure 3.7: Qualitative mapping of five key stressors contributing to the SE⁶



4 The 16 countries are: Argentina, Bulgaria, France, The Gambia, Germany, Greece, Iceland, India, Italy, Latvia, Mexico, Singapore, South Africa, South Korea, Turkey and the US.

5 Futures studies of complex systems, which any national economy certainly is, are difficult to complete with quantitative modelling and forecasting alone because there are no future facts or data sets to analyse. Mathematical models are useful for generating insights about a system, given specific contexts and clearly identified assumptions and parameters, but models are not the system. Hence a causal layered analysis (CLA) has been applied to provide better insights. A CLA approach unites public perceptions and concerns with technical explanations and systems models, and then with a consideration of different worldviews and value systems.

6 To date, very little research on the SE mentions environmental crises or disruptive technologies as current factors of the informal economy but they are growing in importance, hence Figure 3.7 lists environmental crises and disruptive technologies as placeholders that indicate the need to incorporate them into models intended to look further ahead.

Emerging cultural, environmental, and technological changes will affect both the natural evolution of the SE and the extent to which it might increase or decrease.

How might emerging SE factors intersect with current factors and government policies?

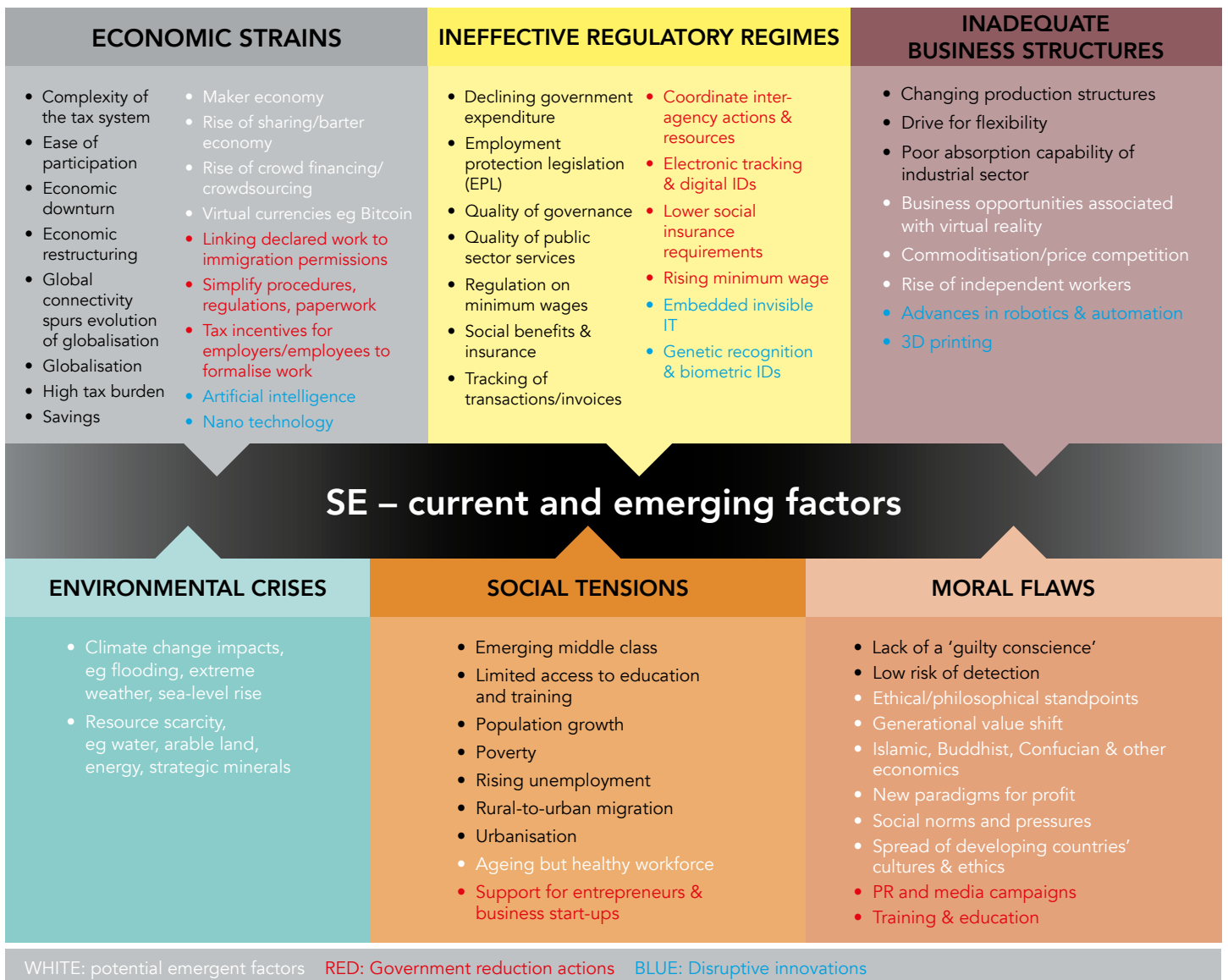
Emerging cultural, environmental, and technological changes will affect both the natural evolution of the SE and the extent to which it might increase or decrease (Figure 3.8). These factors will also shape the options through which governments could address the SE and tackle undeclared work.

The evolving decentralisation of the global economy with the advent of crowd-financing, the sharing economy, and the 'maker economy', may make the boundaries between the formal and informal economies even more porous, as 'backyard manufacturing' becomes easier.

On the other hand, new biometric and genetic ID technologies will make it easier for governments to identify and document workers, and a built environment dense with embedded IT could make it easier to monitor the population. For each emerging change, the question arises of whether it might amplify or curtail the SE – and whether it presents an opportunity for, or a challenge to, possible government actions to reduce, control, or legitimise the informal sector.

Figure 3.8 maps emerging SE factors and their impact, following from Figure 3.7, first by adding the effects of government actions addressing the SE, and finally by suggesting potential changes in the environment and technological innovations that could accelerate the growth of the SE.

Figure 3.8: Qualitative mapping of potential emergent factors affecting the SE



To explore the interplay of emerging changes and their impacts on the formal economy calls for a conceptual framework that allows consideration of various changes that might interact and evolve into alternative possible scenarios.

From interacting factors to scenarios

Encompassing and envisioning the interactions of all these emerging factors at once is beyond the capacity of a quantitative model, owing to the limitations of available data. Some of the emerging factors may even call into question core assumptions and interconnections within the formal model. To explore the interplay of emerging changes and their impacts on the formal economy calls for a conceptual framework that allows consideration of various changes that might interact and evolve into alternative possible scenarios. Such a framework enables explorations of how current attitudes, economic roles, regulatory regimes and policies might evolve into the future.

In a world beset by multiple crises – conflicting worldviews (secular versus religious), conflicting systems (consumerism versus sustainability), and rapidly approaching system limits (peak oil, peak water) – stressors that might contribute to SE growth abound; how will they evolve? Which countries could be negatively affected, and which might avoid any potentially adverse impacts? Clearly, for any one country, one uncertainty will be how strongly these stressors will strike in the future. The other core uncertainty for this issue is whether a specific country's government can devise and implement effective responses to a growing SE – even if that response is to legitimise it.

Expressing those two uncertainties as pairs of opposite outcomes results in the following axes:

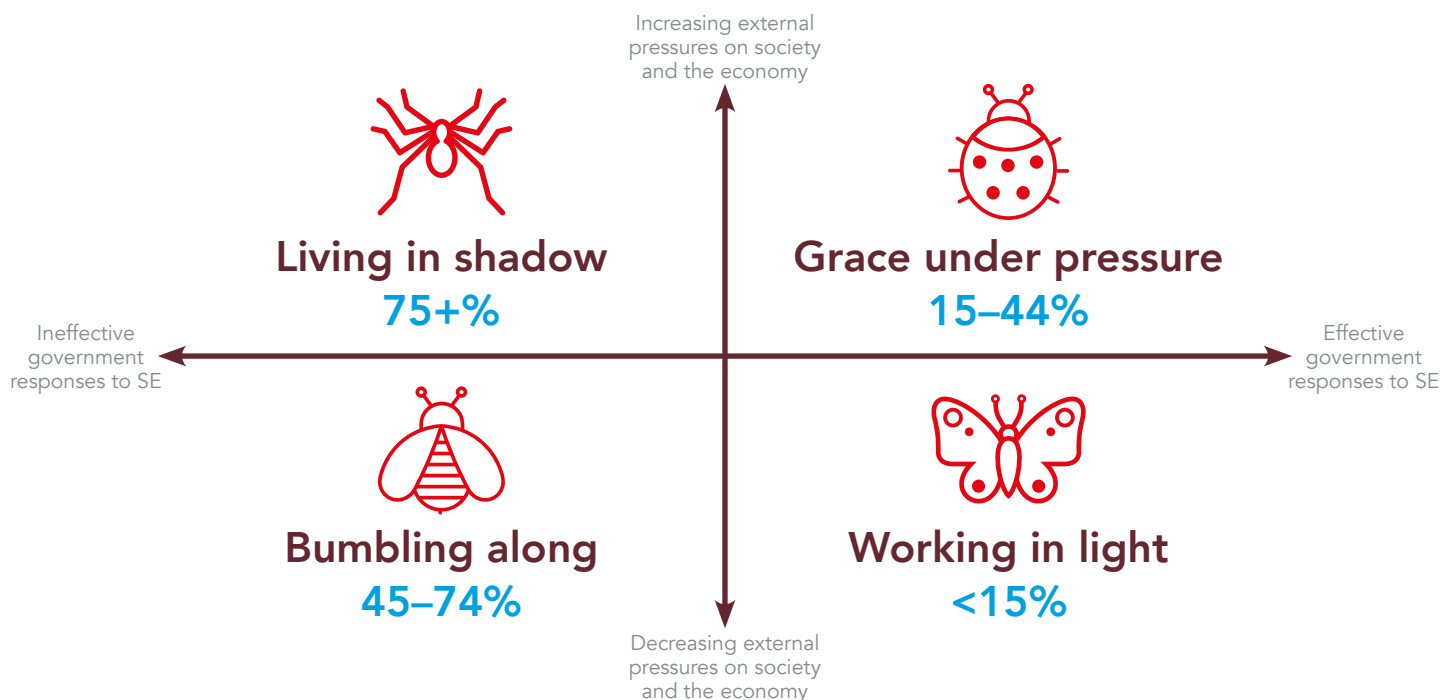
- external pressures on society: increasing versus decreasing, and
- government responses to the SE: ineffective versus effective.

Creating a matrix from these two axes suggests four possible scenarios:

- increasing external pressures, and ineffective government response – *Living in shadow – 'Collapse'*
- decreasing external pressures, and ineffective government response – *Bumblng along – 'Corruption'*
- increasing external pressures, and effective government response – *Grace under pressure – 'Can Do'*, and
- decreasing external pressures, and effective government response – *Working in light – 'Co-Creation'*.

Of these, **Living in shadow** is an extremely pessimistic scenario, where over 75% of the global population is working in the informal economy. **Bumblng along** could be seen as representing an extension of the present with 45–74% working in the shadows; **Grace under pressure** offers a future

Figure 3.9: External pressures on society and the economy, against governmental response



In many cases, governments have given up any pretence of trying to control the SE and accept it as a key mechanism within the civil society infrastructure, such as it is.

where governments and communities are responding more proactively to crises, resulting in 15–44% of total workforce in the informal sector; and **Working in light** is an extremely optimistic scenario, with an informal workforce of less than 15% of the population – this is likely to be achieved only by the few countries insulated by geography and geology from severe external crises, and whose governments are agile at adopting appropriate strategies.

Scenario implications

Living in shadow – In many nations, the SE is the real economy for most citizens. Even in more economically mature economies, 40–50% of the workforces find themselves in the informal sector at some point. In many cases, governments have given up any pretence of trying to control the SE and accept it as a key mechanism within the civil society infrastructure, such as it is. Some businesses try to stand out and maintain clear policies on shadow activities but the majority in most countries now work with players in the informal sector or have practices of their own that fall outside the law.





Bumbling along – Rising technological unemployment has forced many into the shadows. There are wide variations in government approaches, from outright accommodation to strict technology-assisted monitoring and control of, and punishments for, SE activity. Business behaviour also varies quite dramatically: while some pride themselves on totally transparent and compliant operations, others flirt openly with practices that could be considered illegal.





Grace under pressure – In many countries, opportunities exist for citizens to earn a living inside the formal sector or in barter-based systems. For some, informality is still the only viable survival option. The majority of governments have now found ways of ‘managing’ the SE such that there is greater traceability of illegal behaviour. The tendency in most cases is to clamp down on businesses and those abusing the tax system for high personal gain while at the same time allowing lower-level individual transgressions to go unpunished. In some countries there is an active partnership with the informal sector as it is seen as the most resource-efficient mechanism for creating employment and providing vital civil society services such as health and education.

Working in light – In most economies, the informal sector is now a fraction of its former self and in all the others has fallen to less than 50% of the workforce. In at least 75% of economies, those willing to find formal employment or work independently within the system can do so and earn a reasonable living. Governments by and large believe that they have the situation under control, with technology, the ‘Internet of Things’ and AI, in particular, providing a management infrastructure that makes it very hard for firms or individuals to operate undetected in the SE.



Table 3.3: Scenarios and their factors

FACTORS	Living in shadow (increasing pressures/ ineffective responses) 75+% SE 	Bumbling along (decreasing pressures/ ineffective responses) 45–74% SE 	Grace under pressure (increasing pressures/ effective responses) 15–44% SE 	Working in light (decreasing pressure/ effective responses) <15% SE 
Economic	<ul style="list-style-type: none"> • Continuous regional economic downturns are coupled with a few global recessions • Tax burden is perceived as high owing to low incomes • The sharing/barter economy grows rapidly • Ease of tax avoidance provokes citizens to conceal part of their income 	<ul style="list-style-type: none"> • Foreign capital investment in local economies is increasing • High level of integration between local and global economies creates good environment for business • Global inequality not increasing but still high • Population rising 	<ul style="list-style-type: none"> • The pace of globalisation continues • Economic turbulence creates regular regional recessions • Good quality of public services leads to a high tax burden • Increasing population leads to increasing global labour supply 	<ul style="list-style-type: none"> • Stable national revenue bases • Low levels of corruption • New paradigms and worldviews emerging on economic and political governance • Reinvention of capitalism – towards alternative economic models
Business	<ul style="list-style-type: none"> • Small businesses increasingly struggling to survive • The absorption capacity of the industrial sector decreases • Wealth and power consolidated in the hands of a small number of business owners 	<ul style="list-style-type: none"> • Small businesses increasingly struggling to survive in the global race • Global service corporations increase outsourcing of every possible activity for their clients • Those who can manage data and the software to manipulate it gain increasing power over old industry leaders who fail to embrace digital transformation 	<ul style="list-style-type: none"> • Small businesses increasingly struggling to survive in the global race • Global competition and automation drive down prices for goods and services • The absorption capacity of the industrial sector decreases 	<ul style="list-style-type: none"> • New business models emerging, focusing closely on sustainability • High interest in social entrepreneurship, a move away from profit-driven businesses • Blurred boundaries between business (producers) and consumers – rise of co-creation
Socio-demographic	<ul style="list-style-type: none"> • Poverty levels are rising • Limited access to education and training leaves many people operating in the shadows • Rising racial/ethnic/tribal divisions reinforce conflicts and deprivation 	<ul style="list-style-type: none"> • Poverty is declining slowly • Gradual and partial reduction in unemployment • Access to education and training increases owing to private sector provision 	<ul style="list-style-type: none"> • Continued rural-to-urban migration • Global population continues to grow and age • Access to education/training increases owing to government intervention 	<ul style="list-style-type: none"> • Decreasing/low levels of poverty • Low levels of unemployment owing to wide access to education and training • Expanding middle class

FACTORS	Living in shadow (increasing pressures/ ineffective responses) 75+% SE 	Bumbling along (decreasing pressures/ ineffective responses) 45–74% SE 	Grace under pressure (increasing pressures/ effective responses) 15–44% SE 	Working in light (decreasing pressure/ effective responses) <15% SE 
Socio-environmental	<ul style="list-style-type: none"> Lack of ‘guilty conscience’ and low trust in institutions leads more people into informality Risk of detection is low; SE activity is not penalised owing to corruption Severe periodic climate change impacts and occasional environmental disasters occur around the world 	<ul style="list-style-type: none"> The number of socially focused small and medium businesses is growing Corruption is high among government officials Environmental market mechanisms are widely adopted and encourage sustainable behaviours The world is heading to post-scarcity owing to advances in science and technology 	<ul style="list-style-type: none"> Citizens’ ‘guilty consciences’ prevent them from engaging in shadow activities Risk of detection is high Severe periodic climate change impacts and occasional environmental disasters seen around the world Government subsidies for alternative energy sources 	<ul style="list-style-type: none"> Growth of socially focused businesses Increasing number of climate mitigation/adaptation initiatives Decreasing competition for natural resources due to advances in S&T gradually leads to the ‘Age of Abundance’ Increasing popularity of alternative energy sources Widespread adoption of green manufacturing standards
Governance	<ul style="list-style-type: none"> Increasing political volatility in many regions around the world leads to systemic instability The quality of public services decreases – the quality of citizens’ lives is low Legislation detached from the reality of citizen’s lives alienates citizens from the institutions 	<ul style="list-style-type: none"> Periodic political instability occurring in regions with frozen conflicts Government expenditure is declining, the majority of public services are provided by private corporations Legislation detached from the reality of citizen’s lives alienates citizens from the institutions 	<ul style="list-style-type: none"> Increasing political volatility in many regions around the world leads to systemic instability Improving quality of public services and rising social investment increase citizens’ quality of life Widespread adoption of e-governance leads to improved transparency and trust in government 	<ul style="list-style-type: none"> Increasing/good quality of economic governance High quality of public sector services High rate of democratic transition
Science & Technology (S&T)	<ul style="list-style-type: none"> Science and technology are developing at a slow pace High penetration of internet access in some regions and no reliable constant access in other regions Virtual currencies (eg Bitcoin) used to facilitate illegal trade 	<ul style="list-style-type: none"> Progress in science and technology leads to continued advances in AI, advanced robotics, recognition technologies Disruptive innovation leads to a profound societal and business change 	<ul style="list-style-type: none"> Progress in S&T leads to continued advances in AI, advanced robotics, recognition technologies High penetration of the internet increases connectivity 3D printing drives growth of local fabrication economy 	<ul style="list-style-type: none"> High adoption of digital technology Increasing connectivity Global diffusion of science leading to a faster pace of scientific progress

4. Impact and management of the shadow economy

This section summarises the findings on the implications for business, government and the accountancy profession, drawn from the desk research, expert interviews and ACCA's global survey.

This section summarises the findings on the implications for business, government and the accountancy profession, drawn from the desk research, expert interviews and ACCA's global survey. It looks at three main areas:

- the impact on business and finance teams
- possible government strategies for tackling and accommodating the SE
- the role of accountants and the accountancy profession in dealing with the SE

4.1 CONNECTIONS WITH ACCA'S SURVEY RESULTS

ACCA's survey on the SE found that over half of all respondents believed that in their country it would grow either moderately or significantly by 2025. Two main factors held the overwhelming lead in

contributing to the expected growth of the SE: a tough economic climate and rising unemployment. Secondary factors were government attitudes towards the SE; the potential for decreased monitoring of firms to ensure regulatory compliance; and a deliberate government policy of accommodation. Participants ranked five strategies as nearly equivalent in impact for reducing the SE:

1. government's forcing of more transactions onto electronic platforms
2. increased monitoring of firms to ensure compliance with regulatory standards
3. reduction in unemployment
4. greater investment in creating opportunities for the most marginalised in society
5. growing use of intelligence to identify offenders



Expert opinion was divided on how best to tackle the issue.

Responsibility for tackling the shadow economy

Expert opinion was divided on how best to tackle the issue. While some interviewees stated that government holds the prime responsibility, others suggested that it is the responsibility of the individual to make the right choices, and a third group argued that the community has a significant potential role in establishing cultural norms and practices that discourage participation in the informal economy.

4.2 IMPACT ON BUSINESS AND FINANCE TEAMS

Respondents were also asked to assess the impact of the SE on their business and accountancy practices and to identify the practical approaches adopted for assessing whether their customers and suppliers were operating outside the legal framework.

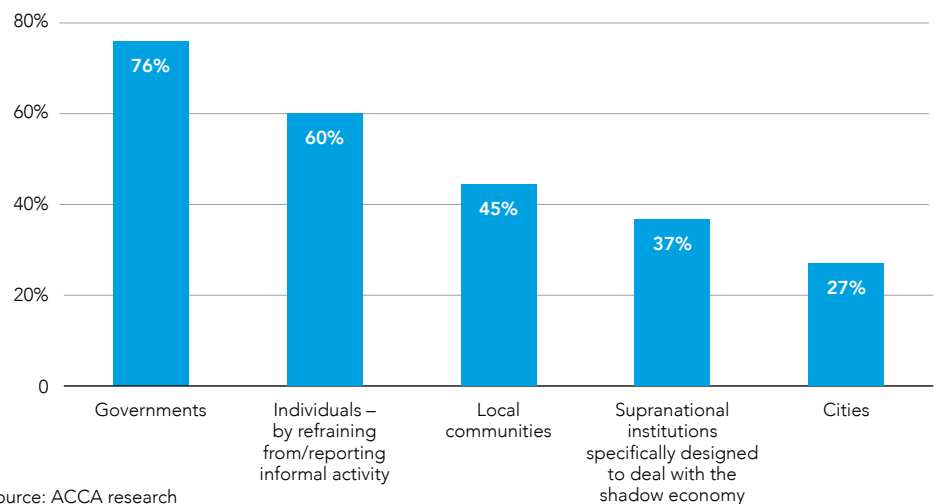
Around one in four will not deal with customers and clients whom they believe

are operating in the informal sector (22%) and 20% stated that they had strict policies to ensure compliance with the law. Only 7% of respondents reported that they are making efforts to improve processes to spot and handle shadow economy activities among their clients and customers.

For addressing SE activity among suppliers and customers, the most popular practical approaches included:

- checking data and requesting documents from suppliers
- checking the reputation of partners
- advising/efficiently communicating with clients/suppliers
- complying with checks and balances
- rejecting cash transactions and only accepting payments based on paper or electronic invoices

Figure 4.1: Who should hold the main responsibility for tackling the shadow economy?



Source: ACCA research

A more controversial concept that is gaining increasing support in many circles is the notion of acknowledging the SE's existence and accommodating the informal sector as a permanent feature of the overall economy.

4.3 POSSIBLE GOVERNMENT STRATEGIES FOR TACKLING AND ACCOMMODATING THE SE

Potential government SE reduction policies

A range of policy levers were identified through the desk research, interviews and case studies, and then tested via the survey. Among respondents, *reducing corruption* (70%) was thought most likely to be effective. Interestingly, the next-highest-ranked option was the somewhat controversial idea of *legalising part of the shadow economy* (55%). Technical and enforcement solutions were favoured by the majority of respondents: specifically, *improving transparency in governance* (55%) and *improving tax enforcement and preventing big business from evading tax* (55%). The rapid pace of technological development has led 54% to believe that technology could be effectively used to monitor and tackle informality.

Detect and enforce – strategies for preventing the growth of the SE

A challenge for governments and regulatory authorities is finding effective detection and enforcement mechanisms that can contain and ultimately reduce the scale of the SE. Hence 62% of ACCA's survey respondents believe that the SE could be reduced if the *monitoring responsibility is placed on firms*. The dominant view is that fines and imprisonment (or possibly other sanctions) should be imposed on those found to be dealing with individuals or suppliers who are operating illegally.

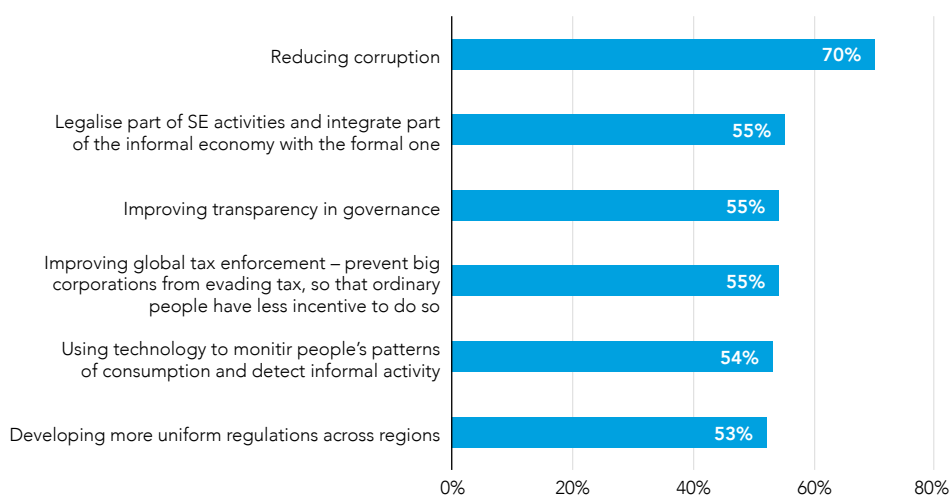
There was a clear emphasis placed on reinforcing detection capability and the adoption of effective sanctions to suppress SE growth. In particular, dramatically increasing physical policing and electronic surveillance to track offenders and increasing the scale of fines and sentences, in order to deter would-be offenders – was identified by over 50% of survey respondents (56% and 54% respectively).

How could governments acknowledge and accommodate the SE?

A more controversial concept that is gaining increasing support in many circles is the notion of acknowledging the SE's existence and accommodating the informal sector as a permanent feature of the overall economy. Many experiments are underway around the world to explore this idea in greater detail. It could be argued that this happens already without official acknowledgement. Indeed, in many economies a heavy reliance is placed on the informal sector for providing critical services such as education, health care and community-level policing.

Among the survey respondents, the most popular measure was to create a financial incentive to stay within the legal framework, for instance reducing corporate and individual taxation or increasing consumption-related taxes (58%). At the same time, some take a more pragmatic approach: acknowledging that the SE will remain and as such governments should include it in the measurement of national GDP (57%).

Figure 4.2: Governance: critical policies and recommendations likely to be adopted by governments for controlling and reducing the SE



Source: ACCA research

Survey respondents certainly supported the idea that the profession could leverage its expertise, experience and insight to help government and society deal with the future development of the SE.

4.4 IMPLICATIONS FOR THE ACCOUNTANCY PROFESSION: HOW SHOULD OR COULD ACCOUNTANTS ADDRESS THE SE?

In the context of the above discussion of SE factors, business impacts and government policies, the question arises as to what role accountants and the profession could and should play in relation to the SE.

On the one hand, any steps to engage with the SE sector could be seen as entering a minefield with numerous potential dangers that could tarnish the reputation of individuals, firms and the profession as a whole. On the other, it is clearly a significant and growing sector of the overall economy and accountants could play a role in helping clients make the transition from informal to formal status.

Survey respondents certainly supported the idea that the profession could leverage its expertise, experience and insight to help government and society deal with the future development of the SE. The most critical role would be providing consistent expertise-led advice for *developing robust guidance and procedures that will address the SE in each country* (67%). Given the strong interplay between the legal and illegal sectors in many economies, over half saw a clear opportunity for the profession

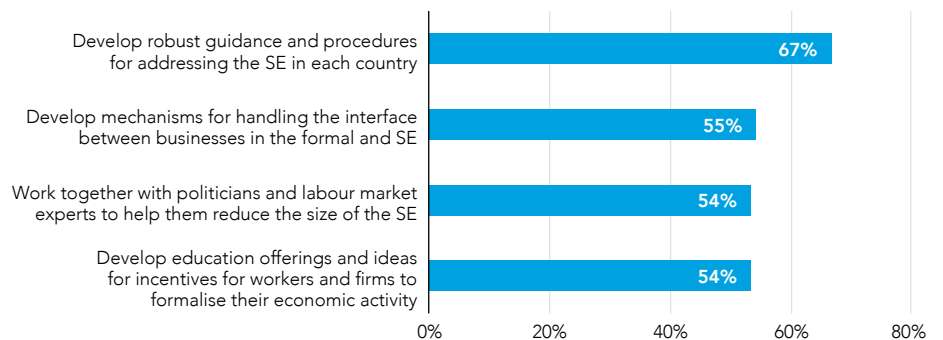
to *develop mechanisms for handling the interface between businesses in the formal and SE* (55%).

There was also significant support for the concept that accountants could help governments frame SE policy, and provide advice and training to help individuals and firms transition from informal to formal trading. Accountancy skills were also seen by many as potentially valuable in establishing clear and consistent measurement techniques and datasets to help provide more accurate monitoring and reporting of the scale and underlying trends in the SE for each country.

Ethics and public value

There is no doubt that society expects an ethical approach when doing business and this is growing. The profession, for instance, may refuse to deal with those working outside the formal system, provide advice to governments on control measures and help informal businesses' transition to becoming formal through active education and assistance. The profession's focus is firmly on continuing to contribute to public value, by acting ethically, focusing on the need for openness and transparency and supporting the development of the economy and society, to name a few of its roles.

Figure 4.3: Implications for accountancy/the accountancy profession and how accountants should deal with the development of the SE



Source: ACCA research

The SE presents an enormous challenge for society and a huge potential opportunity for the profession to play an active role across the entire value chain.

5.1 RECOMMENDATIONS FOR THE ACCOUNTANCY PROFESSION

The SE presents an enormous challenge for society and a huge potential opportunity for the profession to play an active role across the entire value chain from measurement and monitoring through to helping shadow firms and individuals manage their financial affairs and possibly make the transition from informal to formal.

‘What role could accountants play in the evolution of the shadow economy? When we talk about hackers we talk about black hats (bad guys) and white hats (good guys). So, there are two answers to that question. A black hat accountancy firm might find a lot of opportunities at the edge of the SE. On the white hat side, there might be opportunities for accountants to team up with business law firms and start providing “off the shelf services” for putting together neighbourhood cooperatives and small not-for-profit businesses.’

[Expert interviewee](#)

The expert interviews and survey of business leaders carried out for this report suggest that accountants and the accountancy profession certainly have a role to play in the context of the evolving SE. One suggestion is that accountancy could extend its scope from the routine services (such as audit, tax and compliance-related services) and seek to identify higher levels of value-added service that could be created around the following offerings.

- **Look (monitoring)** – Engaging both in direct and indirect observation of the SE. In some parts of world the realities of informality and its potential implications can be understood only by direct observation. Professional accountants could play a role in creating clear definitions of SE indicators and maintaining compatible datasets.
- **Shape (policy advisory)** – Working together with policymakers and labour market experts to help them understand the complexity of the problem, and developing robust policies, guidance and procedures for addressing and/or accommodating the SE.



The role of professional accountants, in an individual and professional capacity, emerges as a key factor that could determine how the SE might develop over the next decade and whether it will shrink or grow over time.

- **Count (measurement and modelling)** – Understanding new forms of exchange emerging from developments such as the maker movement, peer-to-peer networks, the rise of sharing and barter. Detailed evaluation is required of what all these developments could mean for participants at every level of the value chain, in both the formal and informal economy. There is a clear role in identifying and evaluating potential factors and their impacts, and developing alternative measurement techniques and dynamic adaptive models for all economic indicators to ensure accurate measurement of the SE in different national contexts. These models need to be adaptive to enable them to reflect the different economic structures of nations around the world. Such models would allow countries to assess the probable impact of different economic scenarios on the development of the informal sector and explore the potential impacts of new developments such as emerging technological innovations and changing business practices.
- **Resolve (mediation)** – The profession could take an active role as the interface between businesses in the SE and those in the formal economy, helping firms to manage their affairs, legalise and gradually ‘come out of the shadows’.
- **Automate (technology)** – Finding new ways to use technology in accounting, eg developing new ideas and software tools for monitoring and measuring the size of the SE. Developments such as blockchain technology could provide mechanisms by which counter-parties to every illegal trade conducted electronically could be identified. Artificial intelligence is expected to provide evermore intelligent tools for monitoring transaction flows in real time and drawing complex inferences from large data sets.
- **Inform (education)** – The sector could develop education offerings and ideas for incentives for workers and firms to formalise their economic activity.

In the structure of most modern economies, the accountancy profession is uniquely positioned to play a critical role in how the nation can address activities at and beyond the margins of the formal economy. The profession typically has the deepest understanding of, and insight into, both the mechanics and the underlying spirit and policy intention of the prevailing regulatory accountancy and tax frameworks. Hence, the role of professional accountants, in an individual and professional capacity, emerges as a key factor that could determine how the SE might develop over the next decade and whether it will shrink or grow over time. It all depends on how the individuals, firms, professional bodies and regulators view the challenges and opportunities ahead.

An alternative perspective here is to ask what might happen if the profession does not step in to fill this gap in the financial infrastructure: who else is positioned to do it?

5.2 A SUMMARY OF KEY LESSONS LEARNED AND TRANSFERABLE INSIGHTS

The 16 country case studies researched as part of ACCA’s project illustrate that several industries are particularly susceptible to informality. The SE appears to thrive in the following sectors: agriculture, construction and civil engineering, tourism and events (including the hotel, restaurant, café and confectionery sectors), removals and house-minding, meat processing, industrial cleaning, domestic work, personal beauty services, wellness and healthcare, retail, vehicle repair, trade and transportation. The selected 16 countries have adopted several classes of policy for tackling and reducing informality:

- prevention
- deterrence
- changing attitudes
- legitimising undeclared work

In a globalised world with interlinked financial, economic and social systems, joint efforts and effective partnerships among countries are likely to lead to more substantial outcomes.

Although these classes of policy are applicable across countries, the case studies show that the specific policy approaches (based on the policy classes) are highly sensitive to socio-economic contexts. Hence, a successful policy approach applied in one country would not necessarily be effective in other countries with different socio-economic climates. Nonetheless, successful measures for tackling the SE are likely to incorporate at least one of the following three components.

- **Clarity** – The less bureaucracy is involved in applying a certain policy approach, the greater its impact. Reforming and simplifying the tax system usually brings transparency and makes people more willing to cooperate. Increased compliance requires ease and clarity, which involve reducing the administrative burden by making the requirements easy to follow and complete for both employer and employee.
- **Cooperation** – The cooperation between different stakeholders across government, business and labour has proved to be critical to the success of campaigns to counter the SE.
- **Education** – Public campaigns informing people about the nature and impact of the SE, using various media, appear to be useful in stimulating people to change attitudes. Changing values might also require face-to-face dialogue to supplement and personalise mass media informational campaigns.

The research has found that significant reduction of the SE requires international cooperation. In a globalised world with interlinked financial, economic and social systems, joint efforts and effective partnerships among countries are likely to lead to more substantial outcomes.

5.3 KEY IDEAS EMERGING FOR FUTURE MANAGEMENT OF THE SE

Effective management of the SE requires action at all levels – government, cities, local communities, supranational institutions and individuals. Key ideas for the future management of the SE are summarised below.

- **Uniform regulation** – Introducing more uniform cross-border regulation in regional blocks and improving international coordination.
- **Tackling inequality** – Introducing policies that reduce inequality and create a fairer economic system, and encouraging people to care more about their society.
- **NGO dialogue** – Using the expertise and knowledge of NGOs. The more willing legislators and politicians are to enter into dialogues with NGOs, the better their understanding of the causes and consequences of what is happening among the general population.
- **Access to the legal process** – Democratising the law-making process and providing easier participation in law-making, and easier access throughout society to legal redress for injustices.
- **Infrastructure provision** – Addressing longer-term infrastructural issues and drivers, especially in ‘megacities’ – bringing the labour force closer to the sites of production and developing infrastructure in areas where no economic activity was present previously.
- **Capacity building** – Providing better training for government employees who are monitoring the SE, including better training for accountants.
- **Economic alternatives** – Introducing government workfare programmes instead of unemployment benefits.
- **Acceptance and accommodation** – From the general perspective of economies with the highest levels of informal activity, this needs to be addressed in a counter-intuitive fashion. In developmental terms, there is unlikely to be a longer-term economy that is sufficiently robust, stable or successful for more formal forms of governance to be ‘wrapped’ around it, unless the informal economy prospers. Given this, the key strategy is to embrace the SE as a source of innovation and growth.

The estimated sizes of the SE rely on two-sector (formal and shadow economies) dynamic general equilibrium modelling (DGE). To do this, the values of various currently observed variables, such as consumption, investment, formal output (ie GDP), employment, taxes, government expenditures, and the growth rate of GDP are fed into the model. The model then yields an SE size consistent with the ‘ingredients’ of the model. Data series for all these variables are available for all the years up to the year 2011.

Once the values for the shadow economy have been determined as a percentage of GDP on a country-by-country and year-by-year basis (up to 2012), forecasting the size of the SE for any country i is done by estimating the following econometric regression equation in a time-series (year-by-year) framework:

$$IS_{i,t} = \beta_0 + \beta_1 IS_{i,t-1} + \sum_{k=2}^n \beta_k X_{k,i,t} + \varepsilon_{i,t}$$

Here, for country i , in year t , the dependent (left-hand-side) variable, IS , is SE size as a percentage of the official GDP. Several variables have been used on the right-hand side (denoted by X) to take in to account the various determinants of SE. These variables can be grouped under three categories: institutional, economic and demographic.

Institutional variables include: political stability, ethnic tensions, law and order, democratic accountability, quality of bureaucracy and corruption control.

These variables are intended to represent several dimensions of institutional quality within an economy. Measures for all these variables are available in the International Country Risk Guide (ICRG) of Political Risk Services. ICRG reports estimates for these variables up to 2013 and forecasts of all these variables are constructed up to 2025 using an AR (m) model with $m=2$. That is, all the variables have been forecasted using their first and second lag, as well as their growth rates in the previous 10 years.

Economic variables include: consumption expenditures (as percentage of GDP), investment (as percentage of GDP), real GDP per capita (in thousand USD), unemployment (%), taxes (total tax revenue as percentage of GDP), government expenditure (as percentage of GDP), growth rate of GDP (as a percentage rise per year), internet users per thousand people (proxy for technology).

Demographic variables include: Population growth rate (as a percentage rise per year), and percentage of young population in the total population.

These two groups of variables have been obtained from the World Development Indicators of the World Bank up to 2012. Then, as with institutional quality variables, forecasts have been constructed up to 2025 using an autoregressive of order m , ie AR (m) model with $m=2$ for each variable.

Once the above-specified econometric regression equation has been run by including all these determinants of SEs (within X) the link between these variables and SE size could be established. Specifically, the estimated coefficients for all these variables represent the effect of these variables on the SE up to 2012. Next, forecasted values of the determinants of SE to 2025 are combined with the estimated coefficients to construct forecasts of the SE size.

For the forecast of the world as a whole, several other explanatory variables, for which estimates are available up to 2025, have also been included in X in the above equation. These are the percentage of people living in heavily populated and deprived areas and of people living in areas with periodic water shortages, share of the market for industrial robotics, the size of global 3D printing market as percentage of the global market, the market share of the ‘maker economy’ as well as the barter economy, and finally the share of virtual currencies in the market.

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