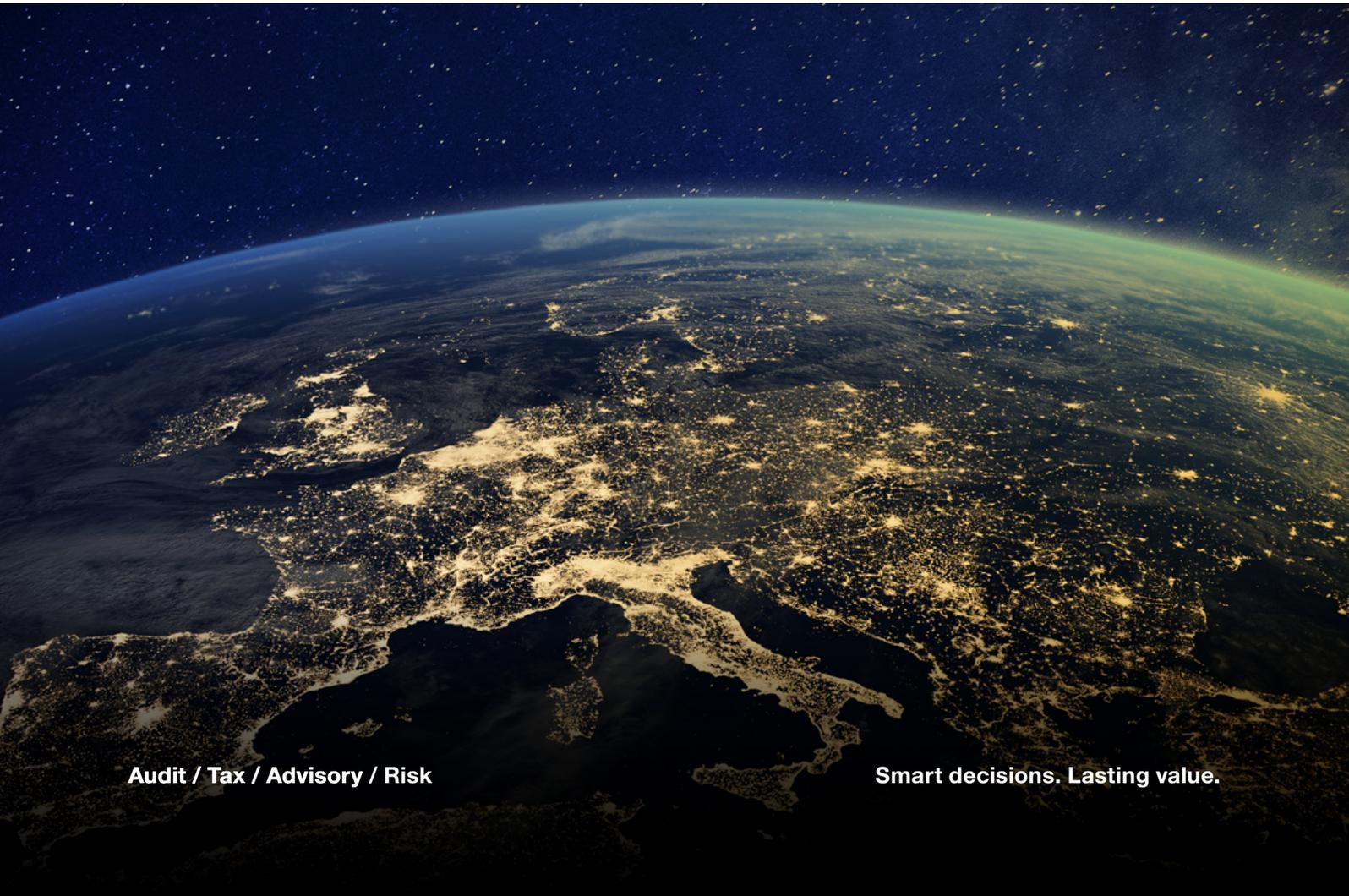




The Financial Cost of Fraud 2019

The latest data from around the world

Jim Gee and Professor Mark Button



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Foreword

The 2019 Financial Cost of Fraud report is published at a time of increasing political and economic unpredictability. Across the globe economies and businesses are facing a myriad of new challenges and opportunities. These are largely being driven by the emergence of new technologies which are fundamentally altering the ways in which our political systems, global markets and human beings are behaving.

The exponential growth in areas such as artificial intelligence (AI), biometrics, big data and predictive analytics in market capitalism will undoubtedly further shift the relationship between businesses and consumers.



While these new technologies offer forward-thinking organisations almost untold opportunity to capitalise on this changing behaviour, they also unfortunately offer those who would use this technology for more nefarious purposes similar opportunities. Indeed, in the 10 years since this report was first published, the one constant has been that fraudsters continue to exploit new technology to undermine and target businesses and individuals for personal and sometimes political gain. Fraud is often described by those in the industry as an ‘arms race’. In the last 15 to 20 years, an armoury of tools has become available for businesses to combat fraud, but, as these defences have been strengthened, so too have the techniques used by fraudsters been correspondingly refined.

Keeping track of these changing threats is a particularly onerous problem for business leaders. Not only are new threats emerging at increasing speed, but, under pressure to manage costs, it is often hard to justify expenditure on technology which may very well be obsolete in just a few years.

While awareness among business leaders of the threat of fraud has undoubtedly improved during the lifespan of The Financial Cost of Fraud reports, their approach for the most part has sadly not. Generally business leaders continue to adopt a reactive approach; a case of hoping that it doesn’t happen and, if it does, managing the impacts after losses and often reputational damage has occurred.

One of the key issues that is constantly faced, is calculating the value and ascribing a suitable proportion of a budget to combat it.

This difficulty is one of the reasons why The Financial Cost of Fraud was developed and continues to be invaluable to organisations in helping them assess the threat of fraud. It shows that the financial cost of fraud can be accurately measured in the same way as other business costs and that it is not unnecessarily expensive or difficult to manage. Most importantly, it shows what the financial cost is likely to be.

No doubt in the next 10 years we will see new threats and opportunities emerge. Hopefully, through the findings of this and future reports, organisations will be in a far better position to anticipate them, fully armed with the knowledge needed to tackle the size and scale of the problem.



Jim Gee, Partner and National Head of Forensic Services, Crowe UK

Visiting Professor and Chair of the Centre for Counter Fraud Studies, University of Portsmouth

The Financial Cost of Fraud

6.05%

Global losses of fraud equate to **6.05%** of GDP.



£3.89 trillion

This equates to USD 5.127 trillion, or **£3.89 trillion**.



80%

Global fraud losses are **80%** larger than the UK's entire **GDP**.



UK

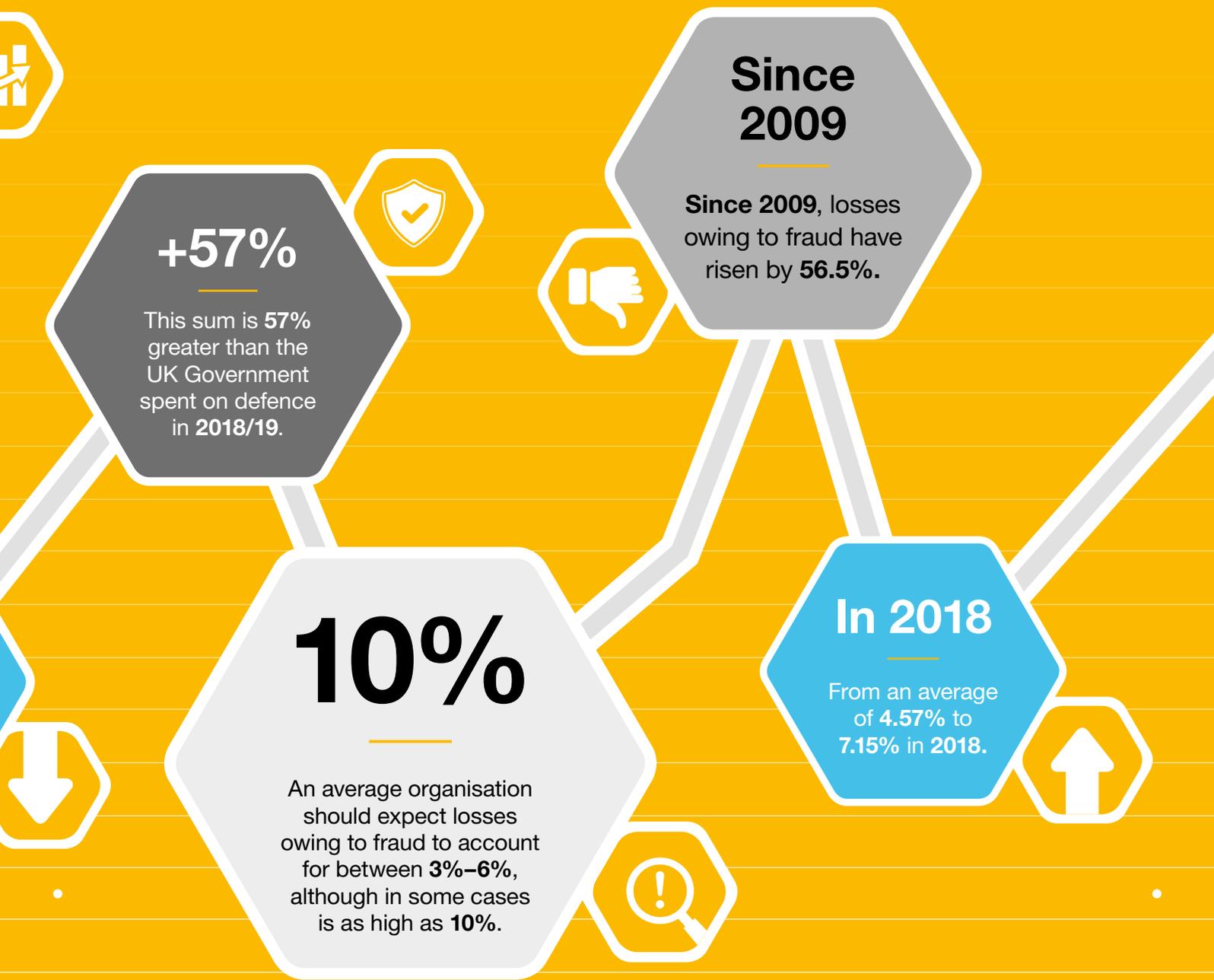
For the UK, fraud losses equate to **£130 billion*** each year.



-40%

Reducing such losses by **40%** would free up more than **£76 billion** each year.

* Focused, sector by sector research makes this total even larger at nearer £190 billion.



1 Introduction

- 1.1 This report renews research first undertaken in 2009, 2011, 2013, 2015, 2017 and 2018 collating accurate, statistically valid information from around the world about the real financial cost of fraud and error. Once the extent of fraud losses is known then they can be treated like any other business cost – as something to be managed and minimised in the best interest of the financial health and stability of the organisation concerned. It becomes possible to go beyond reacting to unforeseen individual instances of fraud and to embed strategies to pre-empt and minimise fraud losses in business plans.
- 1.2 The report doesn't look at detected fraud or the individual cases which have come to light and been prosecuted. Because there is no crime which has a 100% detection rate, adding together detected fraud significantly underestimates the problem. If detected fraud losses go up, does that mean that there is more fraud or that there has been better detection? Equally, if detected fraud losses fall, does that mean that there is less fraud or worse detection?
- 1.3 The report also does not rely on survey-based information where those involved are asked for their opinions about the level of fraud. These tend to vary significantly according to the perceived seriousness of the problem at the time by those surveyed.
- While such surveys sometimes represent a valid survey of opinion, that is very different from a valid estimate of losses.
- 1.4 Instead, this report considers and analyses 690 exercises which have been undertaken around the world during more than 20 years, to accurately measure the financial cost resulting from fraud and error.
- 1.5 That financial cost is surely the worst aspect of the problem. Yes, fraud is unethical, immoral and unlawful. Yes, the individuals who are proven to have been involved should be punished. Yes, the sums lost to fraud need to be traced and recovered. However, these are actions which take place after the fraud losses have happened – after the resources have been diverted from where they were intended and after the economic damage has occurred.
- 1.6 In almost every other area of business life, organisations know what their costs are – staffing, accommodation, utility, procurement to name but a few. For centuries, these costs have been assessed and reviewed and measures have been developed to reduce them and improve efficiency. This incremental process now often delivers quite small additional improvements.

1.7 Fraud and error costs, on the other hand, have only had the same focus over the last 15–20 years. The common position has been that organisations have either denied that they had any fraud or planned only to react after fraud has taken place. Because of this, fraud is now one of the great unreduced business costs.

1.9 Because it is now possible to measure fraud and error losses, proper judgements can be taken about a proportionate level of investment to be made in reducing them. Re-measurement can then assess the financial benefits resulting from their reduction.

1.10 Making organisations more efficient and reducing costs is an ever-present task. Fraud is an ‘unnecessary’ cost because much of it can be pre-empted.

This report identifies what the financial cost of fraud and error has been found to be and thus the ‘size of the prize’ to be achieved from reducing that cost.

1.11 Of course, there is always more research to be done and any organisation should consider what its own fraud and error costs are likely to be. However, the volume of data which is already available from exercises covering total expenditure of over £19.02 trillion points clearly to losses usually being found in the range of 3–10%. This is likely around the average of 6.05% and possibly much higher.

1.12 We will continue to monitor data as it becomes available and publish further reports as appropriate.



2 Overview

- 2.1 Our research has now reviewed 690 loss measurement exercises undertaken over the period from 1997 to 2018. The exercises took place across 40 different types of expenditure in 49 organisations from 10 countries considering losses in expenditure with a total value of £19.02 trillion. The value of the expenditure examined has not been updated to 2018 values. The losses referred to are a percentage loss of expenditure.
- 2.2 This report is based on extensive global research, building on previously established direct knowledge, to collate information about relevant exercises. The data was then analysed electronically. Exercises were collated from Europe, North America, Australasia and Africa. None were found in Asia.
- 2.3 The report has excluded guesstimates, figures derived from detected fraud losses, and figures resulting from surveys of opinion. It has also excluded some loss measurement exercises where it is clear that they have not met the standards described below.
- 2.4 It has included exercises which:
- have considered a statistically valid sample of income or expenditure
 - have sought and examined information indicating the presence of fraud, error or correctness in each case within that sample
 - have been completed and reported
 - have been externally validated
 - have a measurable level of statistical confidence
 - have a measurable level of accuracy.

2.5 There are a number of caveats.

- 2.6 Some of the exercises have resulted in estimates of the fraud frequency rate, some of the percentage of expenditure lost to fraud, and some have measured both.
- 2.7 It is also the case that some exercises have separately identified and measured fraud and error, and some have not.
- 2.8 Once such exercises have been completed the organisations concerned have decided, on occasion and mistakenly in our view, not to publish their results. Transparency about the scale of the problem is a key factor in its solution. Only then can attention be focussed and a proportionate investment made to address the issue.
- 2.9 In some cases, those directly involved in countering fraud have confidentially decided to provide information about unpublished exercises for wider consideration. In those cases, while the overall figures have been included in the

findings of this report, no specific reference has been made to the organisations concerned.

- 2.10 We are also aware of a very small number of other exercises which have been completed, but which have not been published and where nothing is known of the findings.
- 2.11 Finally, it is important to emphasise that this research will never be complete. More evidence becomes available each year. However, the preponderance of the evidence does point clearly in one direction, as is explained later.
- 2.12 While it is necessary to make these caveats clear, the importance of the evidence collated in this report should not be underestimated. It shows that losses to fraud and error represent a significant, damaging and, crucially, unnecessary business cost.

3 Data from around the world

The 10 countries in which the authors are aware that fraud loss analysis exercises have taken place are:



3.2 By value of income or expenditure measured, the US has undertaken the greatest amount of work in this area. This is a direct reflection of the Improper Payments Information Act of 2002 (IPIA), which requires designated major US public authorities to estimate the annual amount of payments made

where fraud and error are present, and to report the estimates to the President and Congress with a progress report on actions to reduce them. The Improper Payments Elimination and Recovery Act of 2010 further strengthened this requirement.

3.3 The guidance relating to the original IPIA stated ‘The estimates shall be based on the equivalent of a statistical random sample with a precision requiring a sample of sufficient size to yield an estimate with a 90% confidence interval of plus or minus 2.5%’¹ This remains the case although many US agencies undertake work to the higher standard often found in the UK and Europe – 95% statistical confidence and +/- 1%.

3.4 In other countries, while there has not been any legal requirement to date, there is a growing understanding that the key to successful loss reduction is to understand the nature and scale of the problem. For example, in Europe, the European Healthcare Fraud and Corruption Declaration, agreed by organisations from 28 countries called for ‘the development of a European common standard of risk measurement, with annual statistically valid follow up exercises to measure progress in reducing losses to fraud and corruption throughout the EU’.²

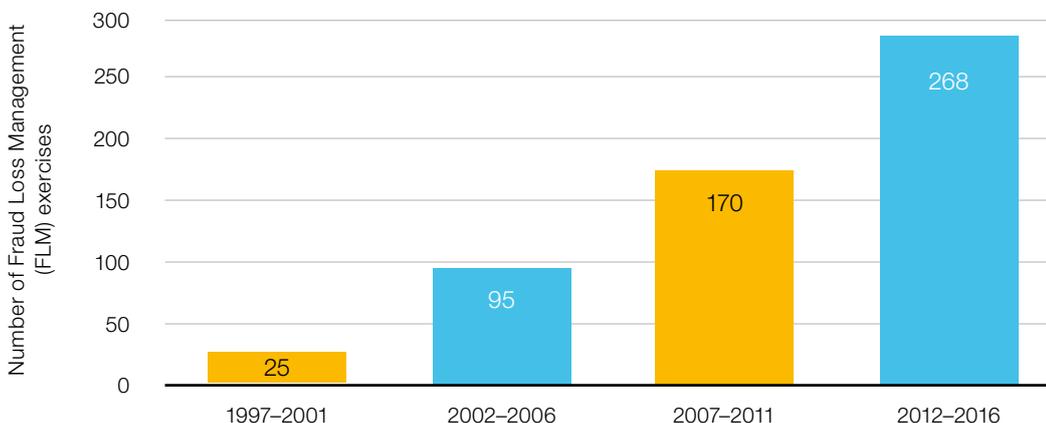
3.5 In the UK, the government is on record as requiring this work to be undertaken. Indeed in late 2014, the government’s Cabinet Office Fraud Error and Debt Taskforce, with the agreement of Ministers, asked all government departments to undertake ‘random sampling’ loss measurement exercises, and this work has proceeded rapidly since then. This is a major step forward to countering fraud in UK central government.

3.6 These developments are part of a consistent trend. Over the period between 1997 and 2017 – the growth in the number of loss measurement exercises was marked, with a tenfold increase in prevalence.

3.7 In 2018 this trend continued with a further 57 loss measurement exercises (where the results have been made known) being completed.

¹ Appendix C to Office of Management and Budget Circular A-123

² European Healthcare Fraud and Corruption Declaration 2004





4 Types of income and expenditure and the nature of the figures

The types of income and expenditure where losses have been measured include:



Payroll



Procurement



Housing



Education



Healthcare



Social security



Insurance



Tax credits



Pensions



Mining



Agriculture



Construction



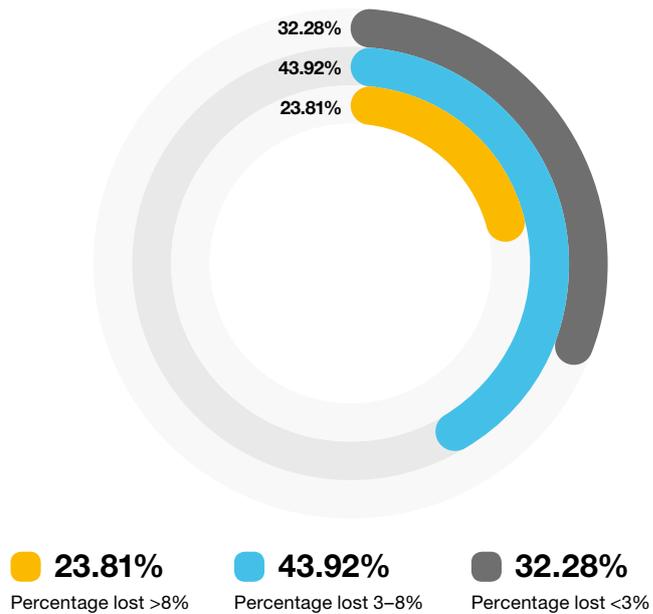
Compensation

4.2 The key figures which have been produced concern the percentage loss rate (PLR – i.e. the proportion of expenditure lost to fraud and error).

4.3 There is more research still to be done and it is intended that this report will be updated on a regular basis.

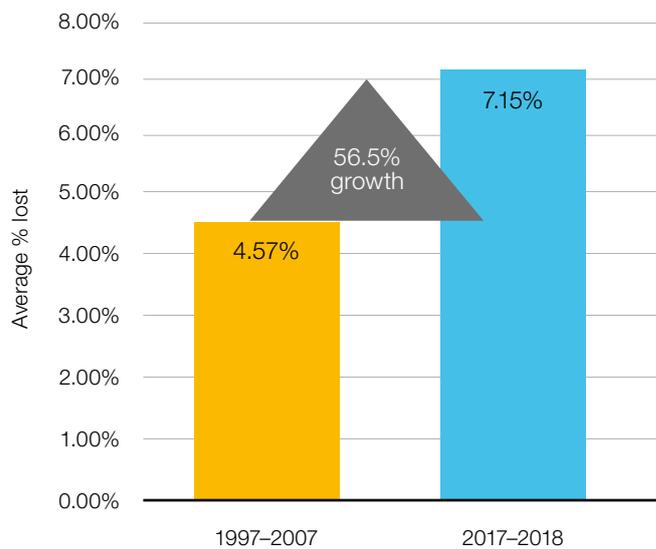
5 Fraud and error losses

5.1 The range of percentage losses across all the exercises reviewed between 1997 and 2018 was found to be between 0.02% and 31.53%,³ with average losses of 6.05% (67.7% of the exercises showed loss figures of more than 3%).



5.2 Since the start of the global recession in 2008, there has been an increase in average losses from 4.57% to 7.15% for the period 2017-2018 – an increase of 56.5%.

³ An area of expenditure in the US Department of Veterans Affairs



5.3 The reasons for these increases – whether over the last two years or over the longer period since 2007 – seem to go beyond the economic cycle. Previous research has suggested some evidence that certain frauds increase during recessions and plateau or decrease slightly during periods of economic growth.

5.4 This does not explain why the cost of fraud has continued to increase since economies have returned to growth. Further research will be needed but it may be that longer term social and technological factors are an underlying cause of the growth of fraud, in addition to the effect of the economic cycle.⁴

5.5 Such factors might include:

- greater individualisation (less belief that we should all be bound by common moral and ethical ‘norms’)
- greater complexity of processes and systems (it is becoming easier to disguise fraud amidst this complexity, which, itself is harder to understand)
- most transactions are now being undertaken by computer’s with fewer face to face transactions (fraudsters feeling more distant from the victims of their dishonesty and thus less concerned about any response)

- a perception that many societal ‘role models’ (be they members of parliament, senior executives or other public figures) are dishonest weakening the anti-fraud culture
- the increasing pace of change in business (with controls struggling to keep up).

5.6 The evidence demonstrates that organisations which have undertaken repeated exercises to measure losses in the same areas of expenditure have reduced the losses over time. This suggests that organisations that know the extent of their fraud losses are better at reducing the losses.

5.7 The global average loss rate for the entire period of the research (6.05%), when taken as a proportion of the global Gross Domestic Product (GDP) for 2018 (\$84.74 trillion or £64.42 trillion),⁵ equates to £3.89 trillion (\$5.127 trillion), a sum more than 80% greater than the UK’s entire GDP. Even reducing such losses by 40%, which individual organisations have achieved, would free up more than £1.55 trillion – a sum greater than the GDP of 174 countries, including Spain, Australia and Mexico.

⁴ Gill, M. (2011) Fraud and Recessions: Views from Fraudsters and Fraud Managers. *International Journal of Law, Crime and Justice*, 39, 204–214.

⁵ International Monetary Fund figures.

5.8 In the UK, applying that global average loss rate to GDP⁶ would imply total losses of £130 billion each year (although more detailed UK – focused, sector by sector research makes this total even larger at nearer £190 billion⁷). Reducing such losses by 40% would free up more than £76 billion each year. This sum is 57% greater than the UK government spent on defence (£48.3 billion⁸) in 2018/19.

5.9 On the basis of the evidence, it is clear that fraud and error losses in any organisation should currently be expected to be at least 3%, probably almost 6% and possibly more than 10%. It would be wrong to go too much further in terms of predicting where in this range losses for an individual organisation will be, without some organisation – specific information about the strength of arrangements to protect it against fraud (its ‘fraud resilience’).

5.10 Crowe UK (Crowe) and the Centre for Counter Fraud Studies (CCFS), in parallel research, have developed Europe’s most comprehensive database of fraud resilience information, with data recorded concerning more than 1,300 organisations from almost every economic sector. By combining the data which underpins this report and organisation specific information about fraud resilience, Crowe and CCFS are able to predict:



The likely scale of losses



The key improvements which reduce them



The related cost of making those improvements

5.11 Crowe and CCFS can also accurately measure losses or train client organisations to do so. The practical experience of Crowe specialists, combined with the academic rigour of CCFS researchers, provides an unparalleled expert resource.

⁶ International Monetary Fund figures estimate UK GDP for 2018 to be \$2.829 trillion or £2.15 trillion.

⁷ Annual Fraud Indicator 2017.

⁸ https://www.ukpublicspending.co.uk/uk_national_education_analysis



6 Conclusion and recommendations

6.1 This is the seventh report since 2009 in an area where, for too long, the accurate measurement of losses was considered either impossible or too difficult. It no longer is. In many areas loss measurement has become routine. Losses to fraud and error can now be treated as a business cost like any other – to be measured, managed and minimised.

6.2 It is also the case that work to measure losses is highly cost-effective. Efforts to reduce losses are helped by greater knowledge about the scale of the problem.

The data shows that organisations which re-measure the same area of expenditure have consistently lower loss rates.

6.3 Where losses have been measured, and the organisations concerned have accurate information about their nature and extent, there are examples, especially in the UK and US where losses have been substantially reduced. Some of the best examples within the 20 year plus period covered by this report include:

- a major mining company which reduced losses across its procurement expenditure by over 51% over a two year period
- the UK's National Health Service (the second largest organisation in the world) between 1999 and 2006 where losses were reduced by up to 60%, and by up to 40% over a shorter period
- the US Department of Education, which reduced its losses across a \$12 billion grant program by 35% between 2001 and 2005
- the US Department of Agriculture, which reduced its losses across a \$12 billion program by 28% between 2002 and 2004
- the UK's Department of Work and Pensions which successfully reduced its losses in Income Support and Job Seekers Allowance by 50% between 1997/98 and 2005/06
- the US Department for Veterans Affairs which successfully reduced its losses across a \$4 billion program by more than 46% in 2010 and 2011
- the US Department of Agriculture (again) successfully reduced its losses across an \$8 billion program by more than 22%
- the UK's Department of Work and Pensions (again) achieved a significant reduction of more than 24% in losses in respect of Job Seekers Allowance.



6.4 Even during the two years after the start of the recession in 2008, when losses generally were increasing rapidly, two of the organisations included in our research reported very significant reductions in their losses – one by 33% and the other by 19% – within a single year in each case.

6.5 Three things are clear.

6.6 In any economic climate, not to consider the financial benefits of making relatively painless reductions in losses to fraud and error is foolhardy. Doing so can mean more money for better public services, more profitable companies and charities better able to fulfil their charitable purposes.



7 About the authors



Jim Gee,

Partner and National Head of
Forensic Services, Crowe UK

Visiting Professor and Chair of the Centre for
Counter Fraud Studies, University of Portsmouth

Jim is a Partner and National Head of Forensic Services at Crowe UK. He is also Visiting Professor at the University of Portsmouth and Chair of the Centre for Counter Fraud Studies (Europe's leading centre for research into fraud and related issues) and Chair of the UK Fraud Costs Measurement Committee (a cross-sector body) which, each year, develops and publishes the UK Annual Fraud Indicator.

During more than 25 years as a forensic specialist, Jim has advised Ministers, Parliamentary Select Committees and the Attorney-General, as well as national and multi-national companies, major public sector organisations and some of the most prominent charities. To date he has worked with clients from 41 countries.

Jim specialises in helping organisations to reduce the cost and incidence of fraud through strengthening the resilience to fraud of relevant processes and systems.



Professor Mark Button,

Partner Director of the Centre for Counter Fraud Studies at the Institute of Criminal Justice Studies, University of Portsmouth

Mark is Director of the Centre for Counter Fraud Studies at the Institute of Criminal Justice Studies, University of Portsmouth. Mark has written extensively on counter fraud and private policing issues, publishing many articles, chapters and completing eight books with one forthcoming.

Some of Mark's most significant research projects include leading the research on behalf of the National Fraud Authority and ACPO on fraud victims, the Nuffield Foundation on alternatives to criminal prosecution, the Department for International Development on fraud measurement, Acromas (AA and Saga) on 'Cash-for-Crash fraudsters', the Midlands Fraud Forum and Eversheds on 'Sanctioning Fraudsters'.

Mark has acted as a consultant for the United Nations Office on Drugs and Crime and on Civilian Private Security Services. He also holds the position of Head of Secretariat of the Counter Fraud Professional Accreditation Board and is a former director of the Security Institute. Before joining the University of Portsmouth Mark was a Research Assistant to the Rt. Hon. Bruce George MP specialising in policing, security and home affairs issues. Mark completed his undergraduate studies at the University of Exeter, his Masters at the University of Warwick and his Doctorate at the London School of Economics.

8 Crowe UK's Forensic Services and the Centre for Counter Fraud Studies



Crowe's Forensic Services are designed to help clients whatever the problem, wherever the place. We help clients to react to an adverse event or to better protect themselves against such events in the future. We have delivered such services across most continents, and in some of the most difficult countries in which to operate.

Our aim is to deliver significant financial benefits for clients which far exceed our fees.

Crowe's team are specialists with a high-level national and international track record built up over many years. We have advised clients of all different types and sizes, including governments, major national and international companies and high profile charities. Our people hold professional qualifications and have many years of practical experience.

We adopt a business approach to fraud, cyber and forensic issues, making sure your organisation is as financially healthy and stable as possible, for now and the future.

We offer a full range of forensic services

- Fraud investigations.
- Forensic accounting.
- Financial crime.
- Cybercrime protection.
- Whistleblowing.
- Corporate intelligence.
- Counter fraud advisory.
- Training and mentoring.

For more on Crowe UK visit:
www.crowe.co.uk



The Centre for Counter Fraud Studies, University of Portsmouth

The Centre for Counter Fraud Studies (CCFS) is one of the specialist research centres of the Institute of Criminal Justice Studies, formed in 2009 to accommodate the growing interest in counter fraud that has occurred within the Institute over the last 10 years.

The Centre aims to collate and present the widest possible range of information regarding fraud and the solutions applied to it, and to undertake and publish further research where needed. Additionally, the Centre's Fraud and Corruption Hub gathers the latest thinking, publications, news and research in one central resource for counter fraud professionals.

For more on CCFS visit:

**[www.port.ac.uk/
centre-for-counter-fraud-studies](http://www.port.ac.uk/centre-for-counter-fraud-studies)**









Start the conversation

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