

JULY 2024

AUTHORS

ELENI ARZOGLOU
ISABEL ATKINSON
ICARO REBOLLEDO

CONTRIBUTORS

HILDA BARASA
YIANNIS THEODOROU
MICHEL VIANO



The Economic Case for a *UK Digital ID*

A Companion to *The Economic Case for Reimagining the State*

Contents

- 3** Executive Summary
- 6** What Is a Digital-ID System and Why Does the UK Need One?
- 9** What Macroeconomic Benefits Could a Digital ID Yield?
 - Benefits of Reducing Fraud
 - Benefits From Closing the Tax Gap for Individual Taxes
 - Benefits From a More Targeted Policy Response to Shocks
 - Benefits Summary
- 18** How Much Would a UK Digital-ID System Cost?
- 20** How Quickly Could a National Digital-ID System Be Rolled Out?
 - Two-Year Initiation Phase
 - Enrolment Phase
- 22** What Are the Net Benefits of a Digital ID?

01

Executive Summary

A digital ID could significantly improve the way that citizens interact with government – saving them time, easing access and creating a more personalised service. For these reasons alone, a digital ID is worth the investment.

A digital ID also has the potential to directly improve the government's fiscal position by reducing benefit fraud, improving the efficiency of tax-revenue collection and helping to better target financial-support payments during crises. In this companion to *The Economic Case for Reimagining the State*, we set out the economic case for a digital ID in the United Kingdom, weighing the implementation costs with the expected benefits that would come from modernising the way citizens, the government and the private sector exchange information. We compile enough evidence, where it exists, to make the case that investing in a national digital-ID system is economically worthwhile.

To provide estimates of costs, we leverage knowledge from other countries' experience of setting up digital-ID systems and publicly available information regarding the UK's readiness for one. While the main rationale for investing in a digital-ID system is to improve services for citizens, these benefits are dependent on the specific public- and private-sector applications. This analysis specifically focuses on the additional macroeconomic benefits arising from tackling fraud and improving the tax take as well as ways of targeting economic support that can further justify the investment costs.

Quantifying the scale of these effects, the costs of rolling out a digital-ID ecosystem and the overall net impact on the public finances is a challenging task given the paucity of data, so the figures below are necessarily constructed on a best-endeavour basis.

Overall, our analysis shows the following:

Benefits: A digital ID could help improve the government's fiscal position by around £2 billion per year through three channels:

- Cutting benefit fraud by £1.25 billion a year. Benefit fraud costs the Exchequer more than £7 billion a year. A digital ID could reduce this significantly by enabling additional identification and eligibility-verification checks on claimants. A digital ID could also generate some indirect benefits to the wider economy by reducing ID-related fraud in the financial sector, which we estimate could save a further £350 million a year.
- Collecting £0.6 billion in extra tax revenue each year. By better linking taxpayer data, a digital-ID ecosystem could help close the UK's tax gap by pre-populating tax returns. This would save citizens time while also helping to avoid tax-filing errors that cost the Exchequer several billion each year. In addition, by making it easier to link together complex data sets, a digital ID could enable HMRC to better target tax-compliance activity – helping to crack down on under-taxed offshore income, for example.
- Saving £0.2 billion a year through better targeting of support during crises. By their nature, crises do not occur at regular intervals or at the same scale. So the potential for a digital ID to reduce crisis-related costs will vary substantially from year to year. However, the 2022 energy-price shock does provide an instructive example of the potential gains from having a digital ID in a crisis. In 2022, the government's energy-bills support scheme and energy-price guarantee were made available to all households and cost £33 billion. We estimate the government could have saved at least £10 billion if it had used a digital ID to better target support to the most at-risk households.

Costs: We estimate the enabling infrastructure for a digital ID would cost around £1 billion to set up and £100 million to run each year. This is a slightly lower figure than in other countries that have recently created similar schemes (for example, Australia and Italy) because the UK has already put some of the necessary infrastructure in place via its One Login programme.

The £1 billion in setup costs would cover the costs of enrolment and implementing the core digital infrastructure needed to link data across various government departments.

Net impact: Based on international experience, we think it is achievable for the government to fully roll out a digital ID within one parliamentary term. A rapid rollout would see the scheme cover its initial setup costs within three years of operation, and from that point on, it could raise around £2 billion per year for the Exchequer.

In the following chapters, we look at what a digital-ID system is and explore the reasons why the UK needs one before delving into the additional macroeconomic benefits arising from tackling fraud, improving the tax take and targeting economic support. We estimate the costs and how quickly the system could be rolled out, plus highlight the net benefits.

02

What Is a Digital-ID System and Why Does the UK Need One?

A digital identity is an electronic version of a person's identification that allows them to prove who they are when interacting, either online or face-to-face, with public and private entities. It contains pieces of personal information such as name, date and place of birth, address and biometric data, which are electronically captured and stored; it can also contain verifiable credentials, such as educational degrees, professional certifications and membership cards issued by certified organisations, attached to a digital-identity wallet and, when required, support the unique identification of that user.¹

Several countries, such as Estonia, Singapore, India, Italy and others, have set up national digital-identity systems, enabling citizens and residents to create and use secure and verifiable digital identities when accessing government services and transacting with the private sector. When introduced, these systems have streamlined and enhanced the efficiency of public and private services. Estonian officials, for example, estimate that Estonia's digital ID-enabled services – spanning 600 e-services and 2,400 business services – save more than 1,400 years of working time annually,² while the digital-ID ecosystem and the ability to sign documents digitally save each citizen five days a year.³

A national digital-ID system in the UK could streamline access to public services and act as the great enabler for their modernisation, while also putting people in control of their data. Currently, the UK offers a fragmented, time-consuming and cumbersome experience when interacting with public and private services. Individuals must repeatedly provide the same information and physical documents to prove their identity or eligibility to access siloed services, without control over how that information is then stored or used. By giving people the ability to prove their identity without having to share physical documents such as passports or driving licences, a national digital-ID system can help reduce fraud and identity crime. Processes such as registering a child's birth, establishing a business or purchasing property can be simplified and automated.

As the Tony Blair Institute for Global Change has previously set out in *A New National Purpose: Innovation Can Power the Future of Britain*, the biggest promise of digital ID is its ability to unlock more tailored public services and targeted support by helping the government understand citizen needs and preferences. The use cases enabled by a digital ID could make a material difference to public services while improving their outcomes for the citizen. These include:

- For health care, a digital ID can help integrate personal health records and patient data to create more personalised treatments.
- For education, a digital ID can link up digital-learner records to help tailor learning to students' needs, while enabling parents to access real-time data regarding their child's progress.
- For welfare payments, a digital ID could reduce the number of people missing out on support they are entitled to, by making them individually aware of their eligibility while making their access to benefits simpler. A digital ID could also streamline the process of declaring taxes by pre-populating fields with tax information.
- For criminal justice, digital ID can help reduce online fraud by enabling businesses and social-media platforms to verify customer identities more effectively.
- For better control of the UK's borders, a digital ID could help by managing refugees and asylum seekers, and ensuring only legal migrants can work in the UK.

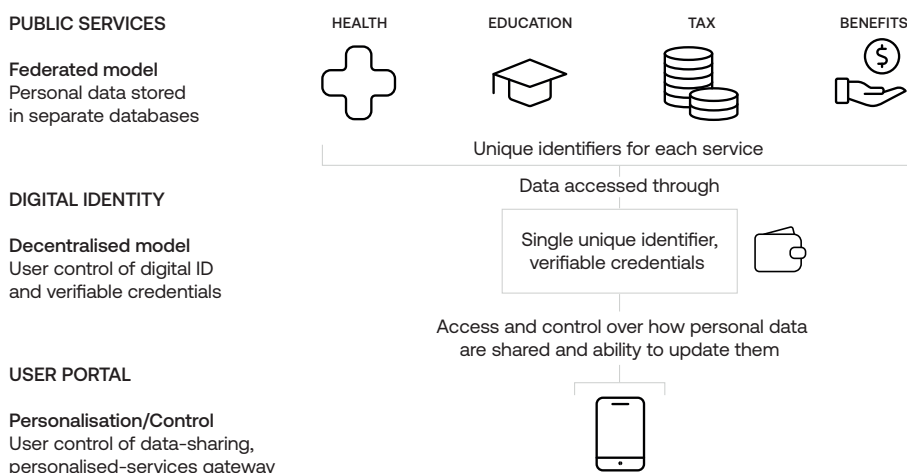
TBI has also set out three core principles (see *The Great Enabler: Transforming the Future of Britain's Public Services Through Digital Identity*) for implementing a digital ID:

- Digital identity must be transparent and bring control to the individual.
- Digital identity must be secure and have robust privacy protections.
- Digital identity must bring speed and utility to people.

Figure 1 shows how these principles would apply to a UK digital-ID model, while helping the user interact with public services.

FIGURE 1

Operational model for digital ID with user control



Source: TBI analysis

A citizen’s digital ID would contain a single unique identifier, which would help link the user with public services. Each service would retain its own unique identifier such as an NHS number or Unique Taxpayer Reference and continue to store only information relevant to its service in its own databases (federated model). Subject to a user’s express consent and unless otherwise communicated, the different databases would communicate securely – single unique identifier to public-service unique identifier – without releasing unnecessary information in the process. Citizens would retain control over how linked they want their data from different databases to be via a user portal/app, while controlling how their digital identity attributes are used through a digital wallet (decentralised model). Through a “once-only” principle, a citizen could log onto their user portal, update their address, for instance, once and then that information would update across all public services. Citizens can also see when public services share their data and for what purpose through their user portal.

03

What Macroeconomic Benefits Could a Digital ID Yield?

A digital ID will enable the UK to reap a broad range of benefits, but here we focus on macroeconomically significant use cases where digital ID, in combination with other technological upgrades, could directly improve the UK's fiscal position by a) reducing fraud, b) improving tax-revenue collection, and c) better targeting benefits.

Benefits of Reducing Fraud

Fraud accounts for more than 40 per cent of all crime in the UK, resulting in more than 3.5 million separate incidents in the year to March 2023.⁴ Given the broad and inherently criminal nature of fraud, it is difficult to produce precise estimates of the scale of financial losses. One of the most comprehensive estimates available is the Annual Fraud Indicator (AFI), which puts the total cost across the UK at more than £200 billion in 2023 – equivalent to more than 8 per cent of GDP.⁵ Of this £200 billion, just under a quarter is estimated to directly target the public sector, with the remaining £158 billion impacting private individuals and businesses; only a proportion of this total is susceptible to ID-related fraud. Here we focus on two areas that are particularly prone to identity-related fraud: 1) private-sector financial fraud related to identity theft and impersonation, and 2) benefit fraud, particularly for Housing Benefit and Universal Credit.⁶

REDUCING FINANCIAL-SECTOR FRAUD

Although the state is not liable for the losses associated with fraud in the financial sector, these costs can depress economic performance. For example, while banks are often liable for refunding customers who are subject to fraud, these costs are ultimately passed on to the consumer and the economy in the form of higher fees and lower interest rates on savings.⁷

In 2023, total detected fraud cost the financial sector £1.17 billion.⁸ However, this figure is likely an underestimation since some fraud goes undetected. The AFI estimates that total fraud costs – including undetected losses – directly to the financial sector and to consumers through identity fraud amounted to £2.6 billion in 2023.⁹

Within this total, we focus on two types of fraud that are particularly susceptible to identity-related fraud: Authorised Push Payment (APP) fraud and card-ID theft.

Authorised Push Payment (APP) Fraud

How much does it cost the UK? APP fraud is the costliest form of financial fraud in the UK – detected fraud amounted to £460 million in 2023.¹⁰ Utilising the scale of fraud estimated by the AFI we estimate that, when undetected fraud is included, the total could be around £1 billion.

How could a digital ID help reduce it? APP fraud occurs when a victim is tricked into sending money to an account controlled by a fraudster who will then transfer the money into various other accounts, often abroad, to evade recovery efforts.¹¹ Identity checks are key to tackle APP fraud. “Confirmation of payee” systems by banks have been estimated to reduce APP scams by more than 31 per cent.¹² These systems work by flagging to account holders when the name of the account that they believe they’re transferring to does not match that held in official records. A digital ID could augment this system by minimising the creation of false accounts using someone else’s credentials – a leading source of vulnerability in the current system.

What are the potential savings from a digital ID? In Norway, the introduction of an ID system reduced payment fraud from 1 per cent to just 0.00042 per cent of transactions – effectively eliminating it.¹³ Meanwhile, confirmation-of-payee checks have helped reduce APP fraud by 31 per cent.¹⁴ We assume a mid-point of this 31–100 per cent range and estimate a digital ID could reduce 65 per cent of detected APP fraud – equivalent to **£300 million a year**. However, there is potential for a digital ID to reduce even more fraud given the Norwegian experience and the scale of undetected fraud in the UK.

Card-ID Theft

How much does it cost the UK? Detected card-ID theft was worth £79.1 million in 2023, with our estimates suggesting that it may have been worth up to £180 million when undetected fraud is accounted for.^{15,16}

How could a digital ID help reduce it? Card-ID theft occurs when a criminal combines a stolen card or card details with other personal information to take over an account held in someone else's name. Digital ID should make it easier to reduce this kind of fraud by enabling secure authentication – meaning it is no longer possible to obtain the card just from pieces of information that are in many cases publicly available.

What are the potential savings from a digital ID? In principle, a digital ID in combination with real-time verification could eliminate up to 100 per cent of card-ID theft, but we conservatively assume a 65 per cent share of detected fraud (as with APP) – equivalent to **£51 million a year**.

REDUCING PUBLIC-SECTOR BENEFIT FRAUD

Public-sector fraud poses a direct threat to the UK's fiscal position as sums lost in procurement scams, payroll fraud and benefit overpayment are losses to the state's balance sheet. Here we focus on benefit overpayments related to Universal Credit and Housing Benefit. These types of benefits may be particularly prone to identity fraud as their supporting documentation and checks are limited compared with other benefits.¹⁷ Indeed, recent criminal cases reported in the media are illustrative of the scale of the challenge – in one case, a single gang cost the Exchequer more than £50 million in Universal Credit fraud.¹⁸

How much does it cost the UK? The Department for Work and Pensions (DWP) estimates that fraud-related benefit overpayments totalled a massive £7.4 billion in the financial year ending March 2024.¹⁹ Within this, Housing Benefit and Universal Credit overpayments accounted for £6.26 billion of the total. DWP does not publish information on what proportion of these losses are related to identity theft, so in the absence of more granular information, we assume that 64 per cent of all overpayment losses are ID-related – in

line with the share of ID fraud in the National Fraud Database (NFD).²⁰ This means that ID-related fraud associated with overpayments of Housing Benefit and Universal Credit amounts to around £4 billion a year.

How could a digital ID help reduce it? Most people apply for Universal Credit online using their bank details, email address, phone number and identity documents such as a driving licence, passport or payslip. These methods of authentication have been open to abuse, with details being stolen to apply for Universal Credit advances which the real person has then ended up being liable for.²¹ There are also many cases of forged tenancy agreements, payslips and letters from landlords, employers and GPs. A digital identity, combined with real-time detection solutions would make it harder for fraudsters to use stolen details to apply for benefits by imposing additional verification checks linked to their uniquely held ID. A digital ID could also enable better linking between an applicant's health record and employment record as an additional (potentially) anonymised crosscheck on the claim.

What are the potential savings from a digital ID? A lack of granular information on the scale and types of ID theft being used to commit benefit fraud makes it difficult to come up with a precise figure. We apply the same method as for APP and card-ID theft and assume that 31–99 per cent of the £4 billion in fraud could be prevented with a digital ID, and conservatively assume a figure at the bottom of this range – equivalent to **£1.25 billion a year**.

Summing up across these applications, we conservatively estimate a digital ID could reduce fraud in the UK by around £1.6 billion a year in 2024 prices (0.06 per cent of GDP) – £350 million related to private-sector financial fraud, which will marginally improve GDP, and £1.25 billion related to public-sector benefit fraud that will be a direct fiscal saving to the Exchequer.

FIGURE 2

Breakdown of the predicted annual benefits from fraud reduction enabled by digital ID



Source: TBI analysis of UK Finance’s Annual Fraud Report 2024 and DWP 2023/24 Fraud and Error in the Benefit System Estimates²²

Benefits From Closing the Tax Gap for Individual Taxes

In the past, HMRC has deployed various technologies to improve the efficiency of tax-revenue collection in the UK. For example, HMRC’s Connect Computer System (CCS) links more than 55 billion data points to cross-check individual tax returns and target tax-compliance activity. CCS has increased revenue by around £300 million per year since it was introduced – illustrating technology’s potential.²³

A digital ID could help build on these existing gains, by better linking data on individuals and small-business owners. Estimating the scale of the potential benefit is challenging given data constraints, but we attempt to come up with an estimate by drawing on public information and consultations with tax experts in the UK.

How big is the tax gap in the UK? The “tax gap” is the difference between the amount of tax the government receives and the amount the government should expect to receive if all taxes were filed perfectly and there were no tax avoidance or evasion. Based on HMRC’s latest estimates, the UK tax gap stood at £39.8 billion in the 2022–23 fiscal year or 1.5 per cent of GDP.²⁴ This figure includes various taxes (for instance, excise duties) where a digital ID would have little impact. Within the total, £19.4 billion could theoretically be affected by a digital ID – £8.5 billion related to self-assessed personal income

and £10.9 billion related to corporation tax paid by small businesses, many of which are sole traders. In addition, HMRC's tax-gap estimate excludes any estimate of how much tax is missed from offshore tax avoidance. It is inherently difficult to judge the size of this offshore tax gap but it is estimated that UK citizens hold almost £1 trillion in wealth overseas and the UK has missed out on £22 billion in tax.²⁵ Taken together, this suggests the potential pool of unpaid tax that a digital ID could affect is large – at £41.4 billion.

How could a digital ID help to narrow the tax gap? A digital-ID ecosystem in combination with other technological advances could potentially help close the tax gap in two ways:

- **Minimising tax-filing errors:** 30 per cent of the UK tax gap is due to businesses and individuals having difficulty in navigating the tax system (not taking reasonable care when filling out their tax returns). A potential way to minimise these errors is for HMRC to have better data on taxpayers to help pre-populate tax returns on their behalf. In Estonia, 98 per cent of tax declarations are completed online and automatic partial pre-population of tax declarations is the norm.²⁶ In the UK, HMRC already uses a number of systems to help with pre-population, including its new Making Tax Digital programme for businesses, but a digital ID could augment these efforts. For example, there are several government data sets – such as the Land Registry or Companies House – that contain tax-relevant data on individuals but which lack a unique identifier to link to individual tax returns. A digital ID, combined with a data-upgrade programme to label these data sets with specific IDs, could significantly improve pre-population.
- **Improving tax-gap strategy:** The absence of a digital ID is a major blocker to HMRC identifying new ways to reduce the tax gap. HMRC has had to develop a number of workarounds to link data sets without a unique identifier, but in many cases these are either imperfect (producing fuzzy matches of names) or resource intensive. This limits the capacity of HMRC officials to innovate. Introducing a digital ID to link data sets would significantly reduce this barrier. For example, having a single digital ID would make it easier for HMRC to target initiatives to close the offshore tax gap. HMRC already has access to large volumes of international tax data from other countries released under the Common Reporting Standard introduced in 2017, but such data are under-utilised.²⁷

How much extra tax revenue could a digital ID help collect? Estimating the specific benefits of a digital ID on the tax gap is challenging due to a lack of granular data on the causes of the tax gap in the UK and a lack of international evidence linking countries with digital IDs to tax gaps. We therefore construct our estimates based on recent examples of technological innovation in tax-revenue collection in the UK:

- **Connect Computer System (CCS):** We assume that a digital ID would be at least as effective as HMRC's CCS in raising revenue. A digital ID could significantly improve pre-population of tax returns whereas the CCS is primarily used to cross-check tax returns once they have been filed. This implies a digital ID could raise at least an extra £300 million in revenue per year.
- **Making Tax Digital:** HMRC estimates that the introduction of Making Tax Digital for business helped reduce the VAT-related tax gap by around 2.2 per cent.²⁸ If we apply this ratio to the £41.4 billion of tax (£19.4 billion from the official tax gap and £22 billion from the offshore tax gap) that is relevant for digital ID then this equates to around £900 million in extra revenue per year.

Given the uncertainty, we conservatively assume the midpoint of this range – equivalent to **£600 million in extra revenue per year.**

Benefits From a More Targeted Policy Response to Shocks

The UK already has significant capabilities to target support payments in times of crisis – as evidenced by the rapid rollout of the furlough scheme during the pandemic. But in some cases, particularly during novel crises or niche events, the government does not always have the data or means to target support to those who need it most.

For example, during the energy-price crisis of 2021 and 2022, the government's Energy Price Guarantee and Energy Bills Support Scheme were available to all households regardless of income level and cost the Exchequer £33 billion.²⁹ If these schemes had instead been targeted to exclude the richest households, we estimate the scheme could have saved

at least £10 billion (0.4 per cent of GDP).³⁰ One reason the scheme was not targeted was due to a lack of data on income at the household level – a problem that can be rectified through a digital ID and citizen portal that enabled individuals to verify their address and their cohabitants in real time.

The above example is a fairly unique case in recent economic history given its economy-wide scale and applicability to a digital ID, but the government frequently administers more narrow time-limited compensation schemes³¹ in response to crises and geopolitical events. For example, the government provided £1.2 billion in 2001 to farmers affected by the foot-and-mouth outbreak and £43 million in 2000 to trawlermen for loss of access to Icelandic waters during the “Cod Wars”. A common feature of these schemes is that they incur considerable administrative costs. For example, the Coal Health Compensation Scheme – which provided compensation to coal workers in the mid-2000s for negligence in respect of lung disease – resulted in £4.1 billion in compensation costs and £2.3 billion in administration costs. A digital ID could reduce these costs by verifying eligibility for schemes more efficiently. In addition, it could help the government to more accurately assess their potential liability for future crises and to then take preventative action to reduce such costs.

Overall, a digital ID could therefore help reduce the cost of future crises in several ways including: 1) better targeting support payments to subsets of the population in response to national shocks; 2) reducing the cost of administering targeted compensation schemes by helping to verify citizen eligibility; 3) helping the government to plan better for future crises and reduce their cost.

It is difficult to assess the fiscal value of a digital ID across these applications. By their nature, crises are sporadic and will vary in size and frequency. To provide an illustrative estimate, we take the recent example of the energy price support scheme as a marker of the maximum potential fiscal saving linked to a digital ID for a given crisis (so up to 0.4 per cent of GDP or £10 billion in today’s prices). We then assume a major crisis occurs roughly every decade based on the frequency and size of other major crises (for example, the global financial crisis, the pandemic, plus major scandals that have required significant compensation such as the infected-blood scandal). Finally, we assume that a digital ID can only help realise these

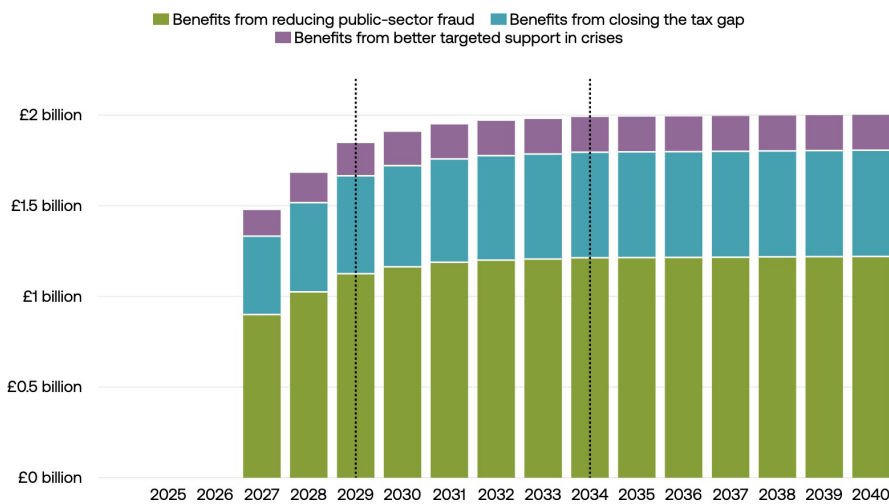
savings in one in five cases based on its applicability to recent crises. This is the equivalent of assuming digital ID could save £10 billion over 50 years, or the equivalent of **£200 million on average a year**.

Benefits Summary

Overall, once fully rolled out a digital ID could plausibly generate benefits worth around £2 billion to the Exchequer per year by reducing public-sector fraud (£1.25 billion), helping to close the tax gap (£0.6 billion) and reducing the cost of future crises (£0.2 billion). We assume these benefits accrue proportionately in line with the speed of enrolment in a digital ID so that the vast majority are realised by the end of this parliamentary term in 2029 (Figure 3). In addition, a digital ID could help reduce financial-sector fraud by £350 million per year, helping to marginally boost growth.

FIGURE 3

Annual fiscal benefits from introducing a digital ID in the UK



Sources: TBI calculations using HMRC tax-gap data, DWP benefit-fraud data and OBR analysis of the cost of the Energy Price Support Scheme

Note: Figures are shown in today's prices.

04

How Much Would a UK Digital-ID System Cost?

Several other countries have recently invested in digital-ID systems. Scaling for population differences, if the UK were to adopt an Australian-style digital-identity system the cost could be around £1.4 billion.³² Meanwhile, Italy recently invested the equivalent of £2 billion in digital services (when scaled to the UK population), of which an undisclosed share was for a digital ID.³³ These figures are broadly consistent with each other once we exclude Italy's spending on other non-digital-ID services so we assume it would cost approximately £1.4 billion to set up a digital ID in the UK if starting from scratch.

Fortunately, the UK government is not starting from scratch so the costs are likely to be lower than £1.4 billion. The government has already invested £305 million in some of the enabling digital infrastructure via its One Login programme (reducing the setup cost to £1.1 billion).³⁴³⁵ The One Login programme will also reduce the cost of enrolling citizens in the digital ID. We estimate that it would cost around £300 million to fully enrol the UK's 68 million citizens in a digital ID if starting from scratch.³⁶ However, by mid-2025, the One Login programme should already have enrolled 30 million people – cutting the cost of enrolment by £130 million – further reducing the remaining setup cost to around £1 billion.

As is standard in the industry, we assume that it will cost around 10 per cent of our estimated setup costs each year to maintain and operate the system – equivalent to £100 million per year in today's prices (see Figure 4).³⁷

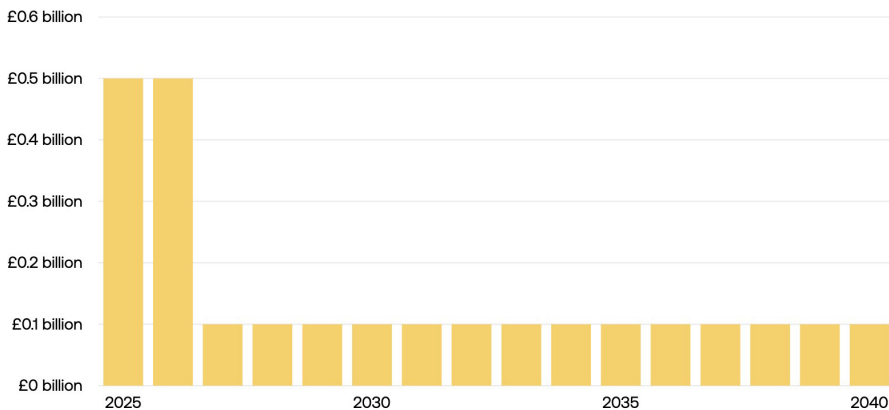
These setup and running costs would cover the core digital infrastructure required to run a national digital-ID system, which includes:

- **National digital wallet:** Where digital identities and verifiable credentials can be stored. The digital wallet gives citizens control of their data and enables them to selectively disclose any attributes they wish to other parties when asked to prove their identity.

- **Data-exchange system:** A secure data-exchange platform will allow public entities to access an individual’s data from other public databases by using the single unique identifier as the linking key, rather than requesting and transferring full data sets. User transparency and consent would be crucial to engender trust.
- **Upgrading legacy IT:** The minimum requirement for IT systems to be compatible with a digital ID is that the relevant databases can be exported into a data cloud. There are 63 legacy systems across government departments in need of upgrading and 44 already have fully funded remediation plans in place.³⁸
- **User portal:** This serves as the primary access point for citizens, enabling them to securely log in, manage their digital identities and access government services. Upon authentication, users can navigate through various features and services integrated within the portal, leveraging the robust data-exchange layer to access and exchange information across multiple systems and databases.

FIGURE 4

Digital-infrastructure costs associated with a digital ID



Sources: Australian federal budgets 2018–2025, conversations with industry experts, TBI calculations

05

Note: Figures are shown in today's prices.

How Quickly Could a National Digital-ID System Be Rolled Out?

The speed with which digital ID could be implemented in the UK is largely within the government's gift to determine. There is a wide range of international experiences: Estonia – with its small population and pre-existing infrastructure (including unique identifiers) – fully implemented its national eID system in just two years (2000 to 2002). By contrast, other countries (including Australia) have taken significantly longer as they have faced technical or legislative delays.

Given the UK already has some of the enabling infrastructure for a digital ID (for example, One Login), we think it is possible to fully operationalise a digital ID over the course of a single parliamentary term (five years). This would involve a two-year initiation phase to put in place the necessary legislation and critical digital infrastructure, followed by a second phase to enrol at least 90 per cent of the resident population.

Two-Year Initiation Phase

This would provide enough time to design, consult on and enact a raft of legislation through parliament, including:

- A bill to set out rules and standards for digital identification and checks performed by the private sector and to extend the One Login into a more fully fledged and portable digital ID and eventually a digital-ID wallet, in line with developments in other countries.
- A series of statutory instruments to widen the list of objectives for data-sharing under the Digital Economy Act 2017.
- Amendments to the Data Protection Act 2018 to establish user control over data-sharing and enable identity portability.

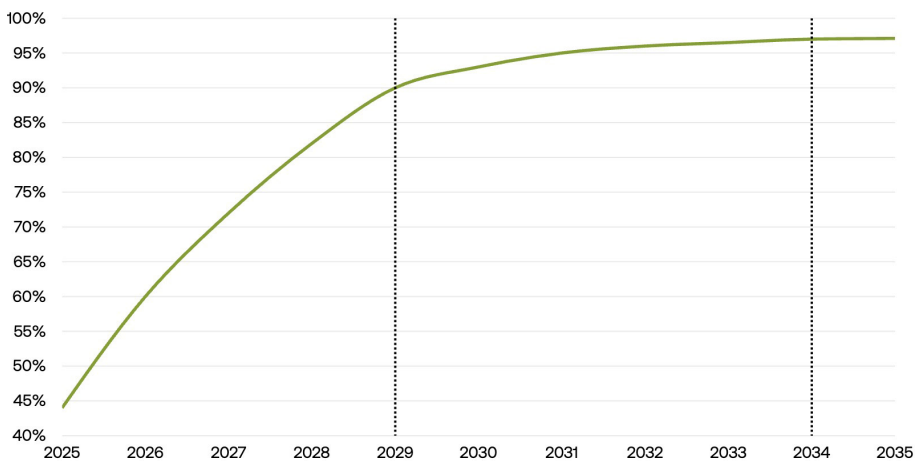
In parallel, the government would use this initiation phase to invest in the digital infrastructure required to operationalise a digital ID, namely: a new national, digital wallet and digital-exchange layer and user portal. We expect tendering for suppliers to be completed within a year and the technology to be in place at the end of the initiation period.

Enrolment Phase

Under the existing One Login programme, the number of verified users is projected to grow from 3.8 million today to 30 million by April 2025 (44 per cent of the population).³⁹ From that point on, we expect enrolment to rise steadily to reach 90 per cent of the resident population by the end of this parliament, before tapering off (Figure 5).

FIGURE 5

Speed of resident-population enrolment in a Digital ID



Source: TBI analysis

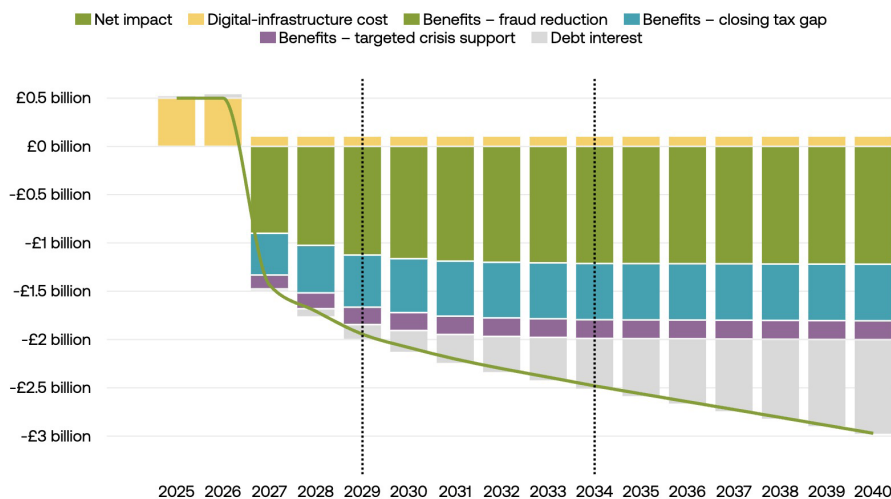
06

What Are the Net Benefits of a Digital ID?

Combining the analysis on costs, benefits and timing, we estimate a digital ID would cover its setup costs within three years of becoming fully operational. From that point on, the benefits from a digital ID (approximately £2 billion per year excluding potential debt interest saved) would continue to outstrip the running costs of the scheme (£100 million per year) helping to improve the UK’s public finances. If this fiscal space were used to pay down the national debt, the fiscal gains from reduced debt interest would grow further over time – equivalent to a net benefit of £2 billion per year by the end of this parliamentary term and £2.5 billion by the end of the next (Figure 6).

FIGURE 6

Net impact of a digital ID on public-sector net borrowing



Sources: TBI calculations using HMRC tax-gap data, DWP benefit-fraud data and OBR analysis of the cost of the Energy Price Support Scheme, Australian federal budgets 2018–2025, conversations with industry experts
 Note: Figures are shown in today’s prices.

Endnotes

- 1 <https://legalinstruments.oecd.org/public/doc/707/2690ac50-f57c-4b84-b70e-62202b0e3507.pdf>
- 2 <https://www.pwc.com/gx/en/services/legal/tech/assets/estonia-the-digital-republic-secured-by-blockchain.pdf>
- 3 <https://e-estonia.com/digital-signature-how-to/>
- 4 <https://www.nationalcrimeagency.gov.uk/what-we-do/crime-threats/fraud-and-economic-crime>
- 5 Annual Fraud Indicator: <https://www.crowe.com/uk/insights/annual-fraud-indicator>
- 6 In this paper we have chosen not to explore payroll fraud, for which there is some suggestion that ghost employees (in some cases constructed from false identities) may be a significant issue. While the value of payroll fraud across the private and public sector is estimated at more than £20 billion in the 2023 AFI, attributing any specific proportion of this to employment practices which could be prevented with a digital identity would be extremely speculative.
- 7 <https://www.ft.com/content/8f41194b-7d91-47cb-864f-964a4137dec1>
- 8 <https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/annual-fraud-report-2024>
- 9 This reflects the figures reported from plastic-card fraud (£621 million), online-banking fraud (£112 million), cheque fraud (£54 million), telephone-banking fraud (£39 million) and identity fraud (£1.8 billion): <https://www.crowe.com/uk/insights/annual-fraud-indicator>
- 10 <https://www.ukfinance.org.uk/policy-and-guidance/reports-and-publications/annual-fraud-report-2024>
- 11 APP losses are returned to victims either through a direct refund from their bank or from the recovery of funds from the beneficiaries account; UK Finance reported that, in 2023, 62 per cent of all APP losses were returned to the victim via one of these means. New regulations entering into force in October 2024 mean banks will now have an obligation to refund customers up to £415,000 per APP claim. While this is good news for the individual victims of fraud, without action to reduce the ability of fraudsters to commit these offences, costs will continue to ultimately be passed onto consumers.
- 12 <https://www.thisismoney.co.uk/money/beatthescammers/article-8204559/Name-checking-Confirmation-Payee-cuts-bank-scams-31.html>
- 13 <https://oneid.uk/news-and-events/app-fraud-costing-banks>
- 14 <https://www.thisismoney.co.uk/money/beatthescammers/article-8204559/Name-checking-Confirmation-Payee-cuts-bank-scams-31.html>
- 15 https://www.ukfinance.org.uk/system/files/2024-05/Annual%20Fraud%20Report%202024_0.pdf

- 16 Extent of undetected fraud has been estimated using the AFI.
- 17 <https://committees.parliament.uk/writtenevidence/50033/pdf/>
- 18 <https://www.bbc.co.uk/news/uk-england-london-68774242>
- 19 <https://www.gov.uk/government/statistics/fraud-and-error-in-the-benefit-system-financial-year-2023-to-2024-estimates>
- 20 <https://www.fraudscape.co.uk/#identity-fraud>
- 21 <https://www.bbc.co.uk/news/uk-48887753#:~:text=Claims%20include%20one%20from%20%22a,paid%20monthly%20are%20potentially%20bogus.>
- 22 <https://www.ukfinance.org.uk/system/files/2024-06/UK%20Finance%20Annual%20Fraud%20report%202024.pdf>; <https://www.gov.uk/government/statistics/fraud-and-error-in-the-benefit-system-financial-year-2023-to-2024-estimates>
- 23 <https://www.taxation.co.uk/articles/hmrc-s-connect-computer-and-investigations>
- 24 <https://www.gov.uk/government/statistics/measuring-tax-gaps-tables>
- 25 <https://taxjustice.net/wp-content/uploads/SOTJ/SOTJ23/English/State%20of%20Tax%20Justice%202023%20-%20Tax%20Justice%20Network%20-%20English.pdf>
- 26 https://e-estonia.com/solutions/ease_of_doing_business/e-tax/
- 27 <https://www.ft.com/content/00e7a52d-d85e-467c-b287-5d592b37035c>
- 28 <https://www.gov.uk/government/publications/evaluating-additional-tax-revenue-from-making-tax-digital-for-vat>
- 29 <https://obr.uk/box/the-cost-of-the-governments-energy-support-policies/>
- 30 If the Energy Price Guarantee and Energy Bills Support Scheme had been targeted so that all households in the bottom half of the income distribution received the same payments, the top 10 per cent received nothing and support tapered from full to zero between the 50th and 90th richest households, the scheme could have cost around one-third less.
- 31 https://webarchive.nationalarchives.gov.uk/ukgwa/20170207052351/https://www.nao.org.uk/wp-content/uploads/2008/07/compensation_schemes_briefing.pdf
- 32 <https://ia.acs.org.au/article/2024/budget-2024-to-provide--288m-for-digital-id-.html>
- 33 <https://www.italiadomani.gov.it/content/sogei-ng/it/en/Interventi/investimenti/servizi-digitali-e-cittadinanza-digitale.html>
- 34 One Login allows UK citizens to securely prove their identity once and then set up a single government account, username and password based on their verified identity to access all government services. This reusable digital identity and single sign-in replaces the existing patchwork of 190 sign-in routes to access 44 different services.
- 35 [https://hansard.parliament.uk/lords/2023-11-20/debates/C87A9BD1-33FB-46A7-B016-35ABDC89300D/DigitalGovernment\(DisclosureOfInformation\)\(IdentityVerificationServices\)Regulations2023](https://hansard.parliament.uk/lords/2023-11-20/debates/C87A9BD1-33FB-46A7-B016-35ABDC89300D/DigitalGovernment(DisclosureOfInformation)(IdentityVerificationServices)Regulations2023)

- 36 We assume that the cost of enrolling an individual into the digital-ID system will vary depending on what ID they already hold. Already, 86.5 per cent of the population have a biometric passport and we estimate it would cost the government only £3 per citizen to enrol each of them into a digital ID using existing digital-verification technologies. For those without a passport but with a bank account (10.5 per cent of the population), we conservatively assume the enrolment cost would be £10 per citizen for a physical ID check, based on the cost of running an ID-check station within a post office. Finally, for the 3 per cent of the population who are unbanked, we assume it would cost £25 per person to enrol them – slightly higher than the £18 of a DBS security check.
- 37 <https://www.institute.global/insights/politics-and-governance/governing-in-the-age-of-ai-a-new-model-to-transform-the-state>
- 38 <https://data.parliament.uk/DepositedPapers/Files/DEP2024-0230/Future.pdf>
- 39 <https://www.civilserviceworld.com/professions/article/one-login-government-trebles-number-services>

Follow us

facebook.com/instituteglobal

twitter.com/instituteGC

instagram.com/institutegc

General enquiries

info@institute.global

Copyright © July 2024 by the Tony Blair Institute for Global Change

All rights reserved. Citation, reproduction and or translation of this publication, in whole or in part, for educational or other non-commercial purposes, is authorised provided the source is fully acknowledged. Tony Blair Institute, trading as Tony Blair Institute for Global Change, is a company limited by guarantee registered in England and Wales (registered company number: 10505963) whose registered office is One Bartholomew Close, London, EC1A 7BL.