

ORIGINAL ARTICLE

Real-time audit of public agencies: Utility, controversy and lessons for an emerging practice

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Real-time audit is the auditing of actions as they occur and the publishing of findings before the audited action was completed. It is an emerging practice of Supreme Audit Institutions (SAIs) in many countries, and it marks a stark departure from the traditional 'after-the-fact' auditing practice. Real-time audits have been widely used in the auditing of COVID-19 relief programmes in many countries. Whereas in the United States and many other countries, this practice became popular only in recent years, Israel's SAI in Israel has been conducting real-time audits since the 1970s. The article surveys SAI practices in various countries regarding the timeliness of the auditing of public agencies and presents the pros and cons of real-time audits based on an analysis of the Israeli experience. We conclude by outlining several issues that SAIs should consider before choosing to conduct a real-time audit.

KEYWORDS

accountability, audit methodology, audit planning, audit quality, audit theory, auditing history, auditing standards, auditor reputation, public sector auditing

1 | INTRODUCTION

Nearly every country has established an institution to oversee the accounts and operations of the executive branch. These institutions are collectively known as supreme audit institutions (SAIs). International standards require SAIs to be independent of the executive (INTOSAI, 2007), which is indeed the case in all but a few non-democratic countries (Posner & Shahan, 2014). Among EU members, for instance, some two-thirds of SAIs derive their authority directly from the national constitution, and all are autonomous organizations, not part of any other legal entity (EUROSAI, 2013). Most SAIs report their findings to the legislature (Reichborn-Kjennerud & Johnsen, 2018).

Historically, SAIs evolved from financial to performance auditing (PA) (Hazgui et al., 2022; Power, 2013; Schwartz, 2000), which made them more proactive and enhanced their impact on public service (Pierre et al., 2018). But this shift often created tension between the SAI, the executive and the political actors (Grasso & Sharkansky, 2001; Hazgui et al., 2022; Triantafillou, 2020).

A more recent development in SAI practice is real-time auditing (RTA). PA focuses on the efficiency, economy and effectiveness of

public agencies (O'Leary, 1996), but it usually does so after the audited action has been completed or at the end of a business auditing cycle. RTA does the same but as the audited activity unfolds. Similarly to continuous corporate auditing, it is more preventive in nature, but unlike it, RTA does not conduct streamlined or automated monitoring of continuous activities (Chan, Viktoria and Miklos) but focuses on the managerial functions of defined actions within limited timeframes. RTA aims to boost the sway of the SAIs but at the same time threatens to increase the tension with the executive and political echelons.

Discussion of SAI auditing in academic journals has been limited (Hay & Cordery, 2017), although it has expanded in recent decades (Ling, 2003; Rana et al., 2022) and has appeared in both accounting and public policy journals (Posner, 2011). Nevertheless, the literature on RTA remains scant. Writing is available on ex ante auditing, but with few exceptions such as Ling (2003), it refers to continuous financial auditing. Writing on PA focuses on after-the-fact audits of performance. RTA has unique characteristics and raises unique dilemmas that remain underexplored.

The present paper aims to fill this gap. Because RTA is an emerging practice, our discussion is based largely on analysis of standards

set by international organizations, test cases in several countries and information received from SAI officials in those countries. Next, we compare our findings with the literature on the more traditional forms of public-sector auditing. Finally, we focus on the case of Israel, where real-time audits were conducted many years before they were introduced into the United States and most other countries and went farther than in most. In Israel, RTA practice was formulated in official guidelines, and the debate surrounding it stirred political controversy to the point that a bill was introduced in the Knesset (Israel's parliament) to explicitly deny the State Comptroller the authority to conduct such audits. In discussing the Israeli case, we rely on archival material that reflects the dilemmas state comptrollers faced in considering whether to conduct RTA.

Analysis of the Israeli case allows us to point out the expected benefits and potential perils of RTA and make suggestions about its implementation. This can benefit both scholars seeking a framework for analysis of concrete cases of RTA and designers of public policy contemplating whether and under what circumstances to conduct RTA. This is particularly true given that auditing practices often travel across countries (Ferry et al., 2022), and as shown below, RTA is no exception.

2 | TWO TYPES OF AUDIT AND THE EMERGENCE OF A THIRD

The idea that public officials need to be held accountable dates back to the Athenian democracy of fourth century BCE (Dewar & Funnell, 2017). Institutionally independent auditing is a more modern development, which underwent significant and rapid change in recent years. Below we show how these developments led to the emergence of RTA.

2.1 | Financial auditing

Public sector auditing by independent organizations reporting to parliament dates back to the 19th century (Dewar & Funnell, 2017; Hay & Cordery, 2017). For the 19th and most of the 20th centuries, such auditing dealt primarily with the finances of the public sector. It focused on whether the accounting practices of the public sector were true and fair and whether they followed rules and regulations (Mattei et al., 2021). At times, this was carried out as a pre-audit (or *ex ante* audit), when the auditors' approval was required to execute a transaction, but mostly as a post-audit (or *ex post* audit), when auditors reviewed completed transactions to uncover irregularities. International auditing standards saw the former to be optional, whereas the latter became the core activity of SAIs. The Lima Declaration of Guidelines on Auditing Precepts of 1977, issued by the International Organization of Supreme Audit Institutions (INTOSAI), states that each country should choose whether or not its SAI is to conduct

pre-audits but refers to post-audits as 'an indispensable task of every Supreme Audit Institution regardless of whether or not it also carries out pre-audits'.

With the dramatic growth of the administrative state in the 20th century and the adoption of more decentralized bureaucracies, many SAIs withdrew from pre-auditing, but it remains extensive in Brazil (Blume & Voigt, 2007) and in European countries such as Belgium, Italy, Portugal (Blume & Voigt, 2007; Mazur, 2007) and Greece (Kontogeorga, 2015).

2.2 | PA

The second half of the 20th century saw the rise of a new form of public sector auditing. With declining trust in government (Brady & Kent, 2022; Reichborn-Kjennerud, 2014) and following severe financial crises, parliaments turned to SAIs to audit not only the finances of the executive but also the efficiency, effectiveness and economy of its actions (the 'three Es') (Furubo, 2011; Power, 2013). As one commentator noted, it was a shift from asking 'how much' to asking 'how well' (Pearson, 2014). This form of auditing became known as 'performance auditing' or 'value for money' (VFM) auditing (Leeuw, 1996; Morin, 2001). The debate continues in the literature whether it has achieved its stated goals and whether its perils outweigh its promise (Bawole & Ibrahim, 2016; Hazgui et al., 2022; Rana et al., 2022).

This conceptual change is evident in the history of the US SAI. The Budget and Accounting Act of 1921 created the General Accounting Office (GAO). As its name indicates, it focused on financial review (Dodaro, 2021). But like with many of its counterparts elsewhere, the scope of its review widened significantly in the second half of the 20th century (Barzelay, 1997). With the dramatic growth of the administrative state, government agencies, programmes and regulatory mechanisms, the demand for greater oversight of the efficiency of government operations was met by changing the mission of the GAO, reflected in the change of its name, in 2004, from GAO to Government Accountability Office. With the name change came a change in focus. In 2004, Congress approved the GAO protocol, where the first point in its 'scope of work' is the 'evaluation of federal programs, policies, operations and performance'. This marked the shift of focus from financial auditing to PA.

As the scope of audits by SAIs expanded in the later part of the 20th century (Morse, 1972), PA occasionally included auditing of continuous or ongoing activities. Initially, GAO performance reports on ongoing activities covered areas such as Medicare payments, housing codes and highway safety improvements. Similar trajectories were followed at the same time in Australia (Ryan & Ng, 2002) and later in the EU (Stephenson, 2015). The result was 'continuous performance auditing', which brings together the ideas of continuous financial auditing and PA. This is still not RTA, however.

2.3 | RTA

RTA, which is concerned with concrete executive actions, limited in scope and time, and reports on them while these actions are taking place, often during the initial stages of implementation, is the latest addition to the above practices. It was ignored when INTOSAI published its International Standards of Supreme Audit Institutions (ISSAI) in the 1970s and 1980s and was barely mentioned a decade ago. But the possibility of deviating from the traditional timing of the audit was implicitly acknowledged and eventually explicitly recognized in 2013.

The Mexico Declaration of 2007 on SAI Independence (formerly known as ISSAI 10) determined that 'SAIs are free to decide on the timing of their audit reports except where specific reporting requirements are prescribed by law'. ISSAI 10 sought to preempt criticism by politicians or officials of the executive who may be unhappy with the SAIs' choice of timing of their audits, possibly in real time. ISSAI 12 added that SAIs should be responsive to changing environments and emerging risks.

Explicit recognition of RTA came only in 2013, in ISSAI 100, which states in section 23 that:

SAIs may carry out audits or other engagements on any subject of relevance to the responsibilities of management and those charged with governance and the appropriate use of public resources. **These engagements may include ... real-time audits of projects or other matters** [emphasis added].

This explicit authority to perform audits in real time is general and applies to all types of audits, not only to financial or accounting audits. It was introduced in ISSAI 100 as a recent auditing innovation.

The GAO was first called to conduct this form of audit when reviewing government efforts to stabilize the United States and global economy during the financial crisis in 2008 (GAO, 2008). Similarly to other parliaments, the US Congress was no longer satisfied with after-the-fact reports revealing costly shortcomings and wrongdoings in the implementation of programmes. It ordered the GAO to create bi-monthly reports and recommendations to ensure that programme spending met its determined goals.

As it did in many other areas, COVID-19 became a catalyst of innovation in public auditing. The pandemic and the response measures to it made RTA a global standard. It was the preferred method of many SAIs to monitor the implementation of government programmes aimed at coping with the public health and economic crises caused by COVID-19. In its Coronavirus Aid, Relief, and Economic Security Act (2020) (CARES), Congress ordered the GAO to provide *monthly* reporting on the implementation of the act by government agencies. Eighteen months after the enactment of CARES, the GAO presented Congress and the executive with no fewer than 117 reports comprising 209 recommendations, a third of which had by that time already been implemented (Dodaro, 2021). The GAO was not an exception. Given the enormous amounts of public funding poured into

COVID relief programmes, many SAIs were called to conduct RTA of programmes similar to CARES (Culea & Constantin, 2021). Archana Shirsat, Deputy Director of the INTOSAI Development Initiative, commented that 'SAIs not only do real-time audits, but they have also done pre-order checks, concurrent checks, provision of information reviews, and then what we call real-time audits' (GAO, 2021).

Real-time COVID-19 audits were not always ordered by parliament, and in some cases, they were the initiative of SAIs. More important, at times, they were carried out despite criticism on the part of the executive. Shirsat added: 'We have seen governments questioning whether SAIs have the mandate to audit in a particular instance or not'.

3 | PROS AND CONS OF RTA

RTA raises complex and delicate issues. It places SAIs at the heart of heated political debates and disputes with public agencies at a time when they are delivering programmes and thus at the centre of attention and most vulnerable to criticism. To assess the potential of RTA together with the difficulties it raises, we must understand its benefits and drawbacks. The academic and professional literature on this issue is scant; therefore, the following discussion is fundamental and preliminary.

3.1 | Arguments against RTA

The **first argument** against RTA is that it undermines the separation of powers. In accordance with the judicial 'presumption of regularity', actions of government agencies are deemed legal and proper in the absence of evidence to the contrary. SAIs, as separate entities that are not part of the executive branch, should not interfere with the work of the latter as it is being conducted, lest the SAI personnel become part of the executive. It has been argued that auditing the implementation of agency programmes in their early stages rather than ex post threatens to turn SAIs into a 'management consultant to government departments' (Ling, 2003). Some SAIs have explicitly noted that they were aware of this threat and would refrain from giving advice to government or commenting on its policies (Pierre et al., 2018). Former Israeli State Comptroller, Justice Miriam Ben Porat, formulated the idea as follows: 'Frequent real time audit brings the act of auditing closer to management. While there are checks and balances, the rule is that one branch does not interfere in the functions of the other' (Ben-Porat, 2005). Jacek Mazur, of the Polish SAI, noted: 'Auditing of events that are in progress or that have just recently been completed raises the risk of interfering with decision-making processes' (Mazur, 2021a).

If RTA affects the making of decisions in the process of being audited, it can be argued that it also places some responsibility on the SAI that causes this effect. It can be seen as taking some of the responsibility off the shoulders of the executive and undermining the separation of powers. Becoming too involved in the decision-

making process may also compromise the independence and integrity of the SAI in subsequent audits of similar actions, given its influence on past performance (Culea & Constantin, 2021; Triantafillou, 2020).

The **second argument** against RTA is that it may compromise public trust in the SAI. Audits of matters attracting extensive public attention and that are politically sensitive pose risks to SAIs and invite political pressure and criticism (Grasso & Sharkansky, 2001; Morin, 2001; Posner, 2011; Schwartz, 2000). Similar concerns were raised regarding PA (Ferry et al., 2022; Hazgui et al., 2022; Rana et al., 2022), arguing that such auditing had emotional effects, caused discomfort to auditees (Justesen & Skærbæk, 2010) and was prone to political and media manipulation (Hazgui et al., 2022). Auditing real-time actions that are still unfolding naturally receives more public attention than that of long forgotten issues and has a stronger emotional effect because the stakes are higher for the audited activity and for the agencies and political parties involved. Operating in a charged political environment may have dire implications for the SAI (Bringselius, 2014; Speck, 2011) and harm its prestige (Ben-Porat, 2005) and image as an objective and independent reviewer (Corderly & Hay, 2019; Heald, 2018).

The **third argument** against RTA concerns its effect on the conduct of the audited entity. Experience shows that when auditing is conducted in real time, the audited officials may fear findings of wrongdoing in their conduct. Such concerns may have a chilling effect, causing civil servants to postpone otherwise necessary actions until after the publication of the SAI report. For example, a real-time audit of the implementation of a large-scale infrastructure project may cause officials to be less willing to take risks or make the bold moves necessary for the successful completion of the project for fear that their decision may be prematurely criticized or even rolled back in the face of a real-time audit. The RTA may also logistically burden the schedule and tasks of officials entrusted with getting a new initiative off the ground, when they most need to focus on the new challenge before them (Memcott, 2020).

According to the **fourth argument**, RTA may impair the quality of the auditing work. Auditing requires distance and perspective. RTA may place auditors in a position where they have no advantage over employees of the audited body, making their findings less convincing than those of an ex post audit (Geist, 2000). Furthermore, auditors may not have the understanding required to analyse complex administrative systems during their operation, which is different from that required for after-the-fact auditing (Ling, 2003). Memcott (2020) cited the director of a large Oregon state agency saying that 'real-time auditing sounds like you are performing open-heart surgery before you have diagnosed that heart disease exists'.

3.2 | Arguments in favour of RTA

Despite the above arguments, in recent years, changing expectations from SAIs have created greater demand for RTA (Sułkowski & Dobrowolski, 2021). Below, we list the arguments in its support.

The **first argument** in favour of RTA is that it helps forestall catastrophic results. In Israel, this argument has earned the nickname 'the rolling rock argument', attributed to former Israeli State Comptroller, Yitzhak Tunik, who once noted in his picturesque language:

A massive unsteady rock is ready to break off the top of the mountain, crash below, and crush the people standing at the foot of the mountain. Should the Comptroller observing this scene wait until the rock falls and harms the public or should he issue an alert and act to remove the rock ahead of time, thereby preventing the disaster in the making? (Ben-Porat, 2005)

According to this argument, it is justified to conduct a real-time audit if there are compelling reasons, such as serious and irreversible damage that may result from a given action if no audit is conducted before its completion. Pamela Monroe Ellis, Auditor General of Jamaica, reported that RTA by the Jamaican SAI of government payments under a COVID-19 relief programme prevented unjustified payments in the amount of \$245 million. 'It is far less costly to prevent than to correct', she concluded, comparing RTA with a retrospective 'review that probably would have resulted in a recommendation to recover the amount, which is generally unlikely [to succeed]' (GAO, 2021). This reasoning, however, does not justify RTA in all circumstances but rather only when the auditor is in the best position to draw attention to the looming disaster.

The **second argument** in favour of RTA is that it makes possible audits of large-scale, complex, multi-layered projects that cannot be conducted after the fact. Some projects progress from one stage to another in a manner that makes them suitable for interim auditing. Avoiding RTA in these situations means waiving an opportunity to maximize the chances of these projects for successful completion.

A good example is the biometric ID legislation in Israel, in 2009, called Inclusion of Biometric Means of Identification and Biometric Identification Data in Identity Documents and in an Information Database. The legislation ordered the government to issue ID cards containing individual biometric data to citizens and store the data in a central database. Section 41 created a two-year 'experimental period' to examine the usefulness of the database and the applicability of information safety measures. The State Comptroller decided to audit the operations of the agencies charged with monitoring the implementation of the legislation during the experimental period. His final report explained that given the rigid time frame of the experimental period, the agencies involved needed to respond to audit findings and correct what needed correction in a timely fashion, before moving on to full implementation. For example, the audit found insufficient consideration paid to alternative modes of action to those chosen by the agencies. In matters of this type, it is unreasonable to postpone the audit until after the fact, when it would be almost impossible to correct mistakes.

The **third argument** is that RTA may increase public trust in audited actions and programmes. No doubt, this was on the mind of

Congress when the GAO was first called in to conduct RTA as part of the Emergency Economic Stabilization Act of 2008 (EESA), whose main component was the Troubled Asset Relief Program (TARP). The \$700 billion TARP programme was unprecedented in size and nature, and lawmakers raised significant concerns (Bianco & Pachkowski, 2008). The CARES was, again, unprecedented in size and nature, and Congress again ordered the GAO to review its implementation closely. In both instances, the government took it upon itself not only to spend enormous amounts but also to deploy intrusive measures that elicited much criticism. RTA was seen as one way of responding to public concerns about the management of taxpayers' money.

Nicole Clowers, Managing Director of the GAO Congressional Relations Office, noted concerning the COVID-19 aid programmes:

With so much money flying out the door, so fast ... at a time when trust in government and institutions is low and people need to know that there is someone that's providing that oversight ... the focus [of agencies] was mission achievement, and what took back seat was accountability and transparency ... it erodes public trust in government agencies when they see that there's big mistakes that are being made (GAO, 2021).

The **fourth and final argument** is that RTA has a better chance of catching the attention of the public, parliamentarians and audited agencies because it deals with issues still on the public agenda. RTA reports attract more media attention and therefore have a greater effect on public discourse, politics and the civil service than other types of auditing, increasing the likelihood that the auditors' recommendations will be implemented.

Debates in the media and parliament help increase the effect of audit reports, especially when they resonate with stakeholders' values (Reichborn-Kjennerud, 2014). SAIs seek to catch media attention, and some regard media coverage as an indicator of success (Bringselius, 2014; Hazgui et al., 2022). This argument may appear to contradict the second argument made above *against* RTA, according to which, heightened political stakes and the natural outcome of increased media attention may harm SAIs. Media engagement may simultaneously harm SAIs and enhance their influence. A delicate balance is required to avoid allegations of 'headline hunting' (Kells, 2011) and to use media attention to pressure agencies to improve their conduct (Lonsdale, 1999). Unlike the rolling rock argument, this one is general and justifies conducting RTA not only in emergencies.

In conclusion, RTA has both significant pitfalls and benefits. It is vulnerable to claims of violating the separation of powers, delaying actions of the executive branch and undermining the professionalism of the audit. At the same time, it helps prevent catastrophic outcomes, expands auditing to complex and ongoing issues, increases public trust in the audited agencies and is highly effective.

4 | COMPARATIVE LAW

The authority to conduct RTA has been established and recognized in various countries before being explicitly formulated in the ISSAI. Historically, many European SAIs founded before 1900 were established specifically to conduct pre-audits of financial transactions (Mazur, 2007). After-the-fact state audits developed later, and the authority to conduct pre-audits was gradually reduced. But RTA of the kind that developed after PA had become common is still a novelty emerging in some countries and avoided in others. To assess the current situation, we contacted officials in several European SAIs to inquire about their approach to RTA. The following is based on their responses.

As noted, the United States made its first forays into RTA following the 2008 financial crisis, as Congress became interested in auditing that was 'more proactive' and could 'prevent potential waste and fraud when programs are started' (Posner, 2011).

France is a prominent example of countries that *do not practise* RTA. The French Court of Accounts (Cour des Comptes), the highest audit institution in the country, remains focused on ex post audit. According to the French view, RTA runs the risk of criticizing temporary situations, presenting facts that may not be sufficiently well founded based on scant evidence and, above all, reducing the ability to understand the event under audit in its entirety. Constitutionally, eschewing RTA in France is based on the separation of powers, according to which it is not appropriate for the auditing institution to interfere in ongoing decision-making processes concerning public policy or financial management, which are entrusted to the executive and the legislature (R. Frenzt, personal communication, 11 June 2020).

Some countries, like Finland, have adopted continuous auditing technologies in the public sector to allow close monitoring of the financial transactions of public agencies. They have set up their auditing system in such a way that transactions made by the various audited bodies appear on their screens in real time. The auditors review the financial data at regular intervals and may point out discrepancies or potential mistakes during the fiscal year. If the auditors conducting the analytical review of financial data reveal something that requires changes to be made (mistakes, incomplete data or compliance issues), they escalate the issue to the Audit Director or the audit team and bring it to the attention of the auditee so that the auditee can correct the transaction data before closing the accounts. A Finnish official considered this to be 'close to real-time auditing' (O. Jurkkola, personal communication, 3 July 2020), but in practice it is an advanced form of continuous auditing. The main difference between the two is that in the Finnish case, although the auditing institution can flag irregularities, it does not issue any audit opinions until the annual ex post reports are published. A similar system exists in the Netherlands. The Dutch Central Government Audit service monitors digital accounting systems to identify irregularities as they arise. In the Netherlands, as in Finland, this form of auditing is limited to financial transactions (A. Konijnenberg, personal communication, 8 July 2020). Both are thus a far cry from RTA in the sense discussed here.

Poland is another example of a country that conducts continuous PA of executive activities but does not see itself as adopting RTA. In recent years, the Supreme Audit Office (in Polish, Najwyższa Izba Kontroli or NIK) has published reports on matters such as water resource management by water supply companies in rural communities (NIK, 2022a), implementation of the investment programme for railway stations (NIK, 2022b) and the development of offshore wind energy (NIK, 2022c), which affected executive action underway. Thus, in addition to suggesting lessons to be learned from past events for hypothetical future ones, the NIK fulfils some of the goals of RTA, still falling short of RTA.

In some countries, RTA is an ingrained practice. An RTA tradition exists in the German SAI, The Federal Court of Auditors (Der Bundesrechnungshof), which examines the accounts and efficiency of the federal government. The German SAI audits the progress of government programmes over the course of their implementation, providing professional advice to the government and parliament. To prevent possible mistakes, the audit starts immediately after an administrative decision with financial consequences is made. To avoid a situation where auditors become co-decision makers, audits can cover only decisions that have already been made (Mazur, 2021a, 2021b).

The authority to conduct RTA was enshrined in the Audit Law of the People's Republic of China. Section 34 states: 'Audit institutions shall have the power to stop the auditees' ongoing acts of budgetary revenues and expenditures or financial revenues and expenditures violating the regulations of the State'. For example, the National Audit Office of the People's Republic of China (CNAO) conducted an RTA of the Wenchuan Post-earthquake Recovery and Reconstruction Project, in September 2008 (Taylor-Pearce, 2015). In the United Kingdom, the National Audit Office conducted several real-time performance audits during preparations for the hosting of the 2012 Olympic Games. In both instances, these interventions revealed significant problems that were addressed in the wake of the audits, leading to savings and increased value for the money (Taylor-Pearce, 2015).

5 | THE UNIQUE TRADITION OF REAL-TIME STATE AUDITS IN ISRAEL

5.1 | Introduction

Since its creation, in 1949, the position of State Comptroller in the newborn State of Israel was granted authority and assigned missions that went far beyond those enjoyed by other SAIs. This gave rise to many auditing practices in Israel that preceded their emergence in other countries, making Israel an instructive case study of state auditing.

The wide authority of the Israel State Comptroller was not achieved without challenges, the most recent one being clearly related to the growing tendency towards RTA. In 2017, a group of parliamentarians who sought to limit the Comptroller's power introduced a

bill decreeing that 'the Comptroller will not interfere in the decision-making process of an audited body while it is being formed and will not give instructions to the body to take a certain action or refrain from taking such action'. The bill was eventually defeated by several ministers, but the discourse surrounding it attests to the controversy that RTA may spark. MP Bezalel Smotrich, of the far-right National Union Party (currently Minister of the Treasury), who introduced the bill, argued that:

In his actions, the State Comptroller mixes audit with control. Applying real-time process control, such that interferes with the content of the decisions and not only with the way they are executed, contradicts the rationale of an after-the-fact audit and harms the ability to conduct it optimally. Process control in real time is carried out in Israel by other public agencies authorized to do so, and real-time auditing by the Comptroller impairs his ability to carry out the audit, produces over-regulation, and greatly harms the public and the operation of government (Baruch, 2017).

5.2 | Quick transition from financial to performance to RTA

Like most SAIs in the middle of the 20th century, the State Comptroller of Israel was initially intended to focus mostly on national accounts. The bill creating the office of the Comptroller was drafted by the Knesset Finance Committee and presented to the plenary by the Minister of the Treasury, as shown in the Knesset minutes from 21.3.1949. The first draft of the bill defined the Comptroller's role as 'supervision of the management of the state's finances, its economic enterprises and property, and the fulfillment of other functions'. More detailed functions of the Comptroller, stipulated in section 8(a) of the State Comptroller Law, 1949, focused on accounting measures, with one limited exception: the authority to review whether audited agencies acted 'economically and efficiently'. But as early as 1952, the first amendment to the law required the Comptroller to also examine 'the moral integrity' of the audited bodies. This term was suggested by an opposition member of the Knesset, and it gained wide support. To the best of our knowledge, at the time, Israel was the only country in which statutory law bestowed such a far-reaching authority as to review 'moral integrity' on its SAI.

Following the expansion of the Comptroller's role and authority in 1952, the Israeli SAI began issuing reports on matters then rarely reviewed by its counterparts worldwide. For example, the annual report of 1953 reviewed the practice of outside private employment of employees of state-owned enterprises, and the report of 1955 examined dealings between an employee of the foreign service and the Ministry of Foreign Affairs (Geist & Friedberg, 1995). The first State Comptroller of Israel, Dr. Siegfried Moses, in his first annual report, recognized the vagueness of the term 'moral integrity' and

the wide margin of discretion it suggested. He stressed that auditing would not stop at civil servants' motives because improper deeds may be the result of proper intentions. He stated that public employees should refrain from gaining benefits that they may not have otherwise gained, to avoid even the appearance of impropriety. He warned against an attitude of 'the end justifies the means' that may lead to compromising the moral integrity of the public agency (Navot, 2023). This approach went far beyond what was considered to be the scope of SAI audits internationally in the mid-20th century.

In 1988, Israel granted constitutional status to the SAI. The Basic Law: State Comptroller defines the Comptroller's mission in two subsections. The first focuses on the financial aspects of the Comptroller's work. The second one decrees: 'The State Comptroller shall examine the legality, moral integrity, orderly management, efficiency and economy of the audited bodies, and any other matter which he deems necessary'. This section placed the moral integrity and legality of the actions of audited bodies at the core of the work of the Israeli SAI.

The broad role of the Israeli SAI did not initially mean conducting RTA, but it laid the groundwork for a shift to RTA earlier than in other countries. When Siegfried Moses returned from a study tour of European SAIs, in February 1951, he noted in his report that most European SAIs, like in Israel, focus on ex post auditing. He found limited exceptions to this rule in the United Kingdom and Switzerland, where some ex ante auditing was being conducted. Moses noted, however, that the top officials at these institutions expressed the view that this form of audit was of limited value (ISA, 1951). He concluded that their focus, like that of the Israeli State Comptroller, was on after-the-fact audit.

5.3 | Authority to conduct real-time audits

The Basic Law: The State Comptroller and the current State Comptroller Law make no mention of the timing of the audit or the authority of the Comptroller to conduct audits in real time. But in our opinion, the authority that the law grants to the State Comptroller is so broad that the right to conduct RTA can be deduced from it by way of interpretation. The expression 'any other matter he deems necessary', which appears in section 2(b) of the Basic Law, indicates that the authority of the State Comptroller is general and not limited to a list of specified issues. The suggested interpretation is also consistent with the view of the Israeli High Court of Justice (HCJ), which ruled consistently that the State Comptroller enjoys a wide range of discretion, essential for an effective and comprehensive audit (HCJ, 2011, 2003). Even comptrollers who generally accepted that after-the-fact audits should be the rule agreed that the law allowed them to practise RTA. Miriam Ben-Porat, State Comptroller through most of the 1990s, believed that: 'Generally, an audit should be conducted after the fact ... However, there is no prohibition in the law to carry out an audit before the completion of the action' (Ben-Porat, 2005).

5.4 | Real-time audits by the Israeli SAI

Over the years, Israeli state comptrollers have performed real-time audits of various events and at times explicitly referred to their authority to conduct such audits and to the justification for doing so. Two factors contributed jointly to the early implementation of RTA in Israel. The first, discussed above, was the broad definition of the Comptroller's mission and authority. The second was the fact that all Israeli state comptrollers, from the enactment of the statute in 1949 and until 2019, were lawyers, and all but the first two were retired judges or justices of the Supreme Court. Moses, the first State Comptroller, was trained both as an accountant and a lawyer; Yitzhak Nebenzahl, who succeeded him, was a professor of law with a strong background in finances as the chair of a state-owned bank and later as Head of the Advisory Committee to the Bank of Israel. Since his retirement, in 1982, all subsequent comptrollers had exclusively judicial backgrounds, with no noteworthy experience in finance (except the current comptroller, discussed below). This professional positioning marks the shift from a focus on finance in auditing to one of legality and moral integrity. The markedly legal approach to state auditing in Israel is at the core of the ongoing expansion of the State Comptroller's responsibilities and authorities. In our opinion, it is a source of strength of the Israeli SAI, which made possible the early emergence of RTA in Israel.

In the 1970s, when PA became the norm in Israel and worldwide, Israel began promoting RTA. In a lecture delivered at the 1977 INTO-SAI Congress in Peru, Nebenzahl presented examples of audits conducted in Israel that followed the implementation of government projects in real time, such as the building of power plants, where the Comptroller warned of potential risks emanating from shortcomings in the planning phase of the project. He admitted that such an audit brings the SAI into the 'sphere of the unknown', vastly different from regular financial auditing. The SAI is not always in a position to suggest proper means for rectifying shortcomings it reports on. But Nebenzahl concluded that there was merit in 'airing the problem' to 'stimulate administrative progress through public debate' (ISA, 1977).

A clearer and more dramatic case of RTA occurred following the peace accord between Israel and Egypt. The accord, signed in March 1979, required Israel to withdraw from the Sinai Peninsula by 1982, a move that resulted in many government construction and infrastructure programmes. The State Comptroller began mapping and following the planning and implementation of these programmes as early as July 1979 (ISA, 1979). Shortly thereafter, a report was issued criticizing the *preparations* for the implementation of the withdrawal (ISC, 1980).

Explicit recognition of the need for RTA in Israel dates from the 1980s. In 1986, a real-time report was issued reviewing the decision-making and production processes of the 'Lavi', a fighter aircraft Israel was developing at the time. The grandiose project created much internal controversy and caused a dispute between Israel and the United States. At the height of the public debate, amidst calls to cancel the project, the State Comptroller issued a scathing report on the decision-making process surrounding it. The report was published in

June 1987, in anticipation of a final decision on the fate of the project later that year (ISC, 1987). The government decided to drop the project 2 months later.

Subsequent comptrollers also took on real-time audits of sensitive national security matters. Comptroller Ben-Porat conducted a real-time audit of the preparedness of Israel for a chemical attack in 1991, shortly before the outbreak of the Second Gulf War, amidst fears that Iraq would use biological and chemical weapons against Israel. Ben-Porat's dramatic report revealed deficiencies in the production rate of gas masks and the rate of their distribution to the civilian population. Following the report, the security system conducted a special operation to improve the production and distribution of gas masks, and citizens were instructed to check the masks in their possession and replace them if necessary.

Another widely publicized real-time audit concerned preparations of the Israeli authorities for the 'millennium bug', which was thought to endanger crucial infrastructure. The main findings of the audit by the Comptroller were brought to the attention of the audited bodies already in 1998, and the final report was published in 1999 (ISC, 2000). The Comptroller at the time, Eliezer Goldberg, later expressed his view that, despite the difficulties caused by RTA, it was not possible to postpone the audit to a later date because of the danger of irreversible damage or disaster (IDI, 2009).

A marked increase in the use of RTA came with the appointment of Judge Micha Lindenstrauss as the State Comptroller (2005–2012). In the introduction to one of his early reports, published in January 2006, he announced that '[a]uditing special issues in real time, during their occurrence, is preferable in many cases to an after-the-fact audit that is done a long time after the actions have been completed. This is the new policy of the State Comptroller's Office' (ISC, 2006).

In April 2008, 3 years into Lindenstrauss's term, and after he had already published several reports based on RTA, the State Comptroller's Office issued for the first time comprehensive guidelines for RTA (ISC, 2008). The guidelines noted the need to increase the use of RTA for the following reasons:

- Developments in audit theory, which emphasized the correction of deficiencies, have led to the understanding that the state comptroller must try and prevent the deficiency and the damage from materializing or stop its continuation even before the processes are implemented.
- The Knesset, the public and the media expect quick response to events.
- Frequent personnel changes take place in the executive branch, including governments, ministers and directors general of ministries.

Lindenstrauss stated:

The purpose of the real-time audit is to influence the decision-making processes substantially at their early stages, allowing the executive authority to correct deficiencies early and set the process on a proper path.

Rectifying defects as early as possible to eliminate or fix them as soon as possible improves the effectiveness of the audit. This is in addition to the advantage of publication close to the events being audited, when those events have not yet dropped off the public agenda (Maayan & Haber, 2011).

This approach received some support from the Supreme Court of Israel. In 2012, the Court noted that RTA increases the effect of the Comptroller's reports despite the absence of an enforcement mechanism (HCJ, 2012). As expected, however, frequent RTA reports on matters of heated public debate also placed the Comptroller on a collision course with the political system and generated criticism in Israel as well as among American commentators looking at Israel (Abrams, 2012).

Lindenstrauss's successor, Yosef Haim Shapira, published several reports on audits conducted in real time, including some on sensitive national security matters such as preparedness for drone attacks (ISC, 2017). Shapira voiced the following opinion regarding RTA:

In many matters concerning the public sphere, there is not always a directly injured party that brings a complaint before the court... In the absence of an injured party that goes to court, real-time intervention by the State Comptroller, based on information he received about serious deficiencies that require immediate intervention, is the most effective way to protect the public interest and prevent corruption or grave irreversible damage (Nahir, 2018).

In 2018, the Israeli State Comptroller issued what is to the best of our knowledge the most comprehensive official set of RTA guidelines. The new 'Guidelines to Auditors' contained a section that laid out various considerations and principles to be followed by auditors when considering whether to conduct a real-time audit and in the course of such an audit. The RTA guidelines correspond to the arguments against and in favour of RTA that we presented above. Addressing the issue of separation of powers, the guidelines clarify that auditors must avoid taking part in the decision-making process of the audited body. To alleviate fears of harm to the audited bodies, the guidelines instruct auditors to make sure that they do not delay the activities of the audited body or bring programmes to a halt. To protect the quality of the audit, the guidelines state that RTA follows the usual work methodologies used in the State Comptroller's Office and requires strict adherence to the rights of the auditee. The guidelines state that despite the importance of the time dimension in RTA, it is necessary to ensure that the time constraints do not harm the quality of the audit, its degree of accuracy or its thoroughness.

The guidelines set forth the criteria that must be considered when deciding whether to conduct a real-time audit, including the public importance of the topic under review; the contribution of the audit to the prevention of irreversible damage or serious damage;

the ability to influence the result through the audit; the degree of complexity of the topic; the experience and knowledge available as a basis for a substantive audit; and the damage that may be caused by conducting the RTA. The guidelines make clear that ex post audits remain the rule and RTA the exception, albeit one that is becoming more pervasive.

5.5 | Political backlash and its likely failure

The bill to prevent the State Comptroller from carrying out RTA expressed the frustration of government coalition members with what they viewed as interference on the part of the State Comptroller in the implementation of government policies. Another expression of frustration with 'activism' on the part of the State Comptroller was considered by many to be the appointment, in 2019, of the current Comptroller, Matanyahu Engelman, who was believed to be a favourite of Prime Minister Netanyahu, following a Netanyahu's sour relationship with the previous Comptroller, Shapira (Lis & Landau, 2019a). In his first weeks in office, Engelman indeed appeared to take a different course from that of his predecessors. In an interview with the press, Engelman proclaimed that '[i]t's important to distinguish clearly between the role of the Comptroller and decision-making processes. Decision making must be done by the decision makers'. He added that the Comptroller's intervention 'could undermine the status of the criticism as objective and independent' (Lis & Landau, 2019b). In another interview, he stated that audits should 'show respect for the monitored bodies, leaving them free to make decisions... One need not intervene in every aspect and seek to change the state or the government' (Weitz, 2019).

Unlike his predecessors, Engelman did not make a point of using RTA. When asked by the authors of this paper, he expressed his view that the timing of the audit should be only one of several considerations and that the audit should not delay the audited entities or prevent them from exercising their authority and responsibility. Engelman stressed the importance of maintaining the principle of separation of powers and avoiding the blurring of the boundaries between the executive branch and the State Comptroller.

But what appeared like a clear success of the political majority in the Knesset in steering the State Comptroller in a new direction later proved to be a more nuanced change of course. Like his predecessors, Engelman soon overlooked the practice of RTA.

Although 2020 may have seen Israel moving in a direction opposite to that of most of the world, retreating from its relatively aggressive RTA approach, COVID-19 has brought back RTA by the State Comptroller, as it did in many developed countries. The most robust report on the handling of the pandemic by the government was issued in August 2021 (ISC, 2021a). Engelman called the report 'highly relevant' and warned that 'we are at the onset of a fourth wave, and it is imperative that deficiencies be corrected immediately'. This report followed an interim report submitted to the Knesset in October 2020. Engelman justified the RTA by 'the importance of the interim findings in that audit and the added value of rectifying the deficiencies as

quickly as possible'. Additional reports were issued in June 2021, reviewing the response of local authorities to the pandemic (ISC, 2021b), the handling of data about the unemployed as a result of the pandemic (ISC, 2020a) and consular services provided to Israelis abroad during the pandemic (ISC, 2020b). Thus, the new Israeli State Comptroller fully engaged in RTA from the early stages of COVID-19 and issued reports with the stated intent of influencing government decision-making as the pandemic progressed.

6 | CONCLUSION

RTA is here to stay, and it is likely to be practised more frequently. It is intended to protect the procedural integrity of public institutions and to forestall eroding trust in them. Its popularity is increasing. Public demand for the review of executive operations and the expectation of timely reporting and accountability are on the rise. The fact that the current Israeli State Comptroller, who was initially not a proponent of RTA, has come to embrace it, albeit with some reservations, shows its strength.

Several conclusions emerge from our discussion of RTA. The first is that RTA is necessary at times and likely to become more commonly practised by SAIs and expected of them in the future. The second is that this development should be welcomed because of the advantages of RTA over traditional ex post auditing. The third is that where legally possible, SAIs should be seen as having wide discretion to conduct RTA, as is the case in Israel. The fourth is that because RTA raises some serious concerns, it should be conducted only under certain circumstances.

The case of Israel, with its energetic RTA, shows that such conduct may embroil the auditing institution in political turmoil. Often, such auditing is carried out when there are serious political issues at stake for public agencies and the politicians in charge of them. This may generate a political backlash on the part of such politicians and their supporters, with negative consequences for the trust in the professionalism and impartiality of the SAI. RTA also places auditors in an uncomfortable position, not necessarily suited to their professional training. They are called to make recommendations based on the auditing of incomplete actions, often under conditions of uncertainty, where honest professional assessments of expected outcomes differ. This raises the concern that such audits might impair the professionalism of the auditing institution.

Balancing the pros and cons of RTA is a delicate task. We believe that SAIs should develop a clear RTA strategy to guide their decision whether or not to launch an RTA in given cases. The strategy should also consider the unique precautions auditors must take when conducting RTA and how these should be carried out in a way that serves the interest of the public and of the audited bodies. Such a strategy should include the following criteria for justifying launching an RTA: (a) the targeted activity is of high public value because of its financial scope or social impact; (b) failing to conduct the RTA carries the risk of significant public harm; (c) the expected harm cannot be remedied by ex post auditing; and (d) the RTA of the targeted activity does not

present too high a risk of compromising the independence of the SAI, its professional standards or public trust in it. Following this course of action may help SAIs and executive agencies make the most out of RTA while avoiding its pitfalls.

CONFLICT OF INTEREST STATEMENT

Neither author has any potential conflict of interest in relation to this paper.

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