



JOURNAL European Court of Auditors

Presentation to all staff of the Court on the priorities of the Maltese Presidency







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Time has come to say farewell



The editor-in-chief will retire as of May 2017 but the ECA Journal will continue under a new leadership. Every end is also a new beginning. My best wishes to the successor.

Rosmanie Carotti

Rosmarie Carotti

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I certainly welcome any recommendations from the ECA

Interview with Commissioner Phil Hogan

By Rosmarie Carotti

Commissioner Phil Hogan (2014 – 2019) is responsible for Agriculture and Rural Development



R. C.: How do you rate the cooperation between the Commission and the ECA? How can the ECA's recommendations be better integrated into the policy field of agriculture and rural development? Where are synergies and where do views diverge?

Commissioner Phil Hogan: The ECA has begun looking increasingly closely at the way in which EU policies perform in terms of bringing value-for-money, and that is a good thing. It's clear that in wanting to make the CAP as effective and efficient as possible, the ECA and the Commission are very much on the same page. The ECA's assessments will be a key contribution to our ongoing discussions on the modernisation and simplification of the CAP.

We share the same objectives – to make the policy as effective as possible – so it's important to give EU taxpayers a balanced and proportionate picture of how their money is being spent.

As far as follow-up of the recommendations from the ECA is concerned, I'm glad that the ECA is keen to improve in this area – as indeed are we in the Commission. But with so many of the recommendations covering issues that are dealt with by the Member states directly, this is not so easy. The Commission has a supervisory role and so cannot go so far as accepting or refusing recommendations from the ECA on Member states' behalf; nor do we have the capacity to follow-up recommendations targeting the national level. We need to find a joint solution that can make this work more effectively.

R. C.: Are there concrete proposals to help farmers to get better prices from food processers?

Commissioner Phil Hogan: We do have measures which aim to give farmers a leg up when it comes to the prices they obtain.

First, we encourage farmers to create and join producer organisations which can provide a counter-weight to the commercial power of their more concentrated business partners both up- and downstream – for example the multinational feed and seed groups or the big retailers.

Second, we enhance market transparency by sharing business-relevant data for certain product sectors. Knowing more about what the market is doing and how it might evolve in the future is vital for farmers to be able to hedge against price volatility, but farmers usually have a hard time obtaining that sort of data and there is a role for the Commission to play to fill the gaps in their knowledge. We have stepped up our activities in this regard and now have market observatories for dairy and meat sectors, with observatories for cereals and sugar to follow later this year.

Third, the Commission uses exceptional measures to stabilise markets when the going gets tough for farmers. We have used them recently with regard to the milk crisis and to good avail. Last but not least, the EU's direct payment scheme provides income support for farmers, a cushion that does not depend on market outcomes or prices.

But while we have quite a few means at our disposal to help support farmers' incomes, there is still more we can do. Last year I asked the Agricultural Markets Task Force – a team of 12 experts with experience of working at every level of the food chain – to examine the potential for further improving the way in which the food chain is governed – for example where regulatory improvements can help defend against market failures. The Task Force published its report in November with concrete recommendations for positive changes, and I'm currently looking at these with a view to bringing forward policy proposals later this year. There are plenty to choose from: tougher rules on unfair trading practices, improvements to market transparency and greater clarity on how producers can cooperate without falling foul of competition rules, to name just a few.

R. C.: What is the future of European exports of agricultural products?

Commissioner Phil Hogan: Thanks to successive CAP reforms, the EU is now a net exporter of agri-food products. Since 2006, both EU agri-food exports and imports from third countries have doubled in value. Last year, the annual value of EU agri-food exports reached a new record level of €130.7 billion, which is €29.4 billion (or 29%) higher than five years ago. EU agri-food imports reached €112 billion in 2016, which means the EU has a trade surplus of €18.8 billion. Although the EU was previously a net importer of agri-food products, in 2012 it became the world's top exporter of agri-food products – as well as the top importer. Today, the agri-food sector represents 7.5 % of total EU exports in goods in 2016 and 6.6% of all imported foods are agri-food.

So the EU is in a pretty good shape when it comes to agri-food trade, but the good news is that in certain sectors we expect it to do even better in the future. One estimate, based solely on trade agreements that have been signed and implemented, suggests that by 2026, the EU should export close to 15% of its milk production and become the world's top exporter of dairy products, just ahead of New Zealand, with a strong increase in exports to China the main driving force. The situation is not quite so positive for meat exports, however, with 2026 figures expected to be around the current level of 5 million tonnes – itself a record export performance – as a number of factors combine to reduced EU meat output as a whole. The EU is also expected to become the world's largest exporter of wheat by 2026, increasing its share on the world market from 16% to 22%.

It's not easy of course to predict how EU agri-food trade will develop, and a lot will depend on whether comprehensive trade agreements are in place. This is clear from a recent study of three such trade deals – with Mexico, South Korea and Switzerland – which have together added more than €1bn in EU agri-food exports since they were signed. This has to be offset by the increasing criticism of globalisation and concern about the wider benefits of trade deals among citizens, which is likely to have an impact on the number of such deals in the future, and thus on future trade potential for the agri-food sector. But although they show clear benefits, FTAs are not the sine qua non for increasing trade in agri-food products, and I will continue to pursue other avenues – such as diplomatic offensives by leading business delegations to countries around the world - that can help Europe's food and farming sector reach out to the rest of the world.

R. C.: What are the possible consequences of the Brexit on Irish agriculture?

Commissioner Phil Hogan: It's still too early to tell what the likely consequences of Brexit might be for anything, although it's clear that Ireland in general has been very vocal in warning of the likely impact of its largest trading partner leaving the EU. Now that Article 50 has been invoked, the negotiations can begin in earnest but it would still be premature at this stage to speculate on how those negotiations are likely to affect food and farming in general, in the UK or in the EU. However, the Commission is fully aware that there is a risk that the UK's withdrawal from the Union could have a significant impact on current trade patterns for agricultural products between the UK and the EU, in particular Ireland.

R. C.: Is it right to say that cross-compliance and climate actions did not deliver the expected results? What can be improved?

Commissioner Phil Hogan: No, I don't accept that assessment. I remain convinced that cross-compliance has achieved its aim of raising awareness of the need to make sure farmers farm in a sustainable way, and that there are rules in place to help make sure this happens. To provide a practical example: thanks to cross-compliance rules, today, watercourses are protected with buffer strips, which contribute to enhancing water quality.

As far as climate change is concerned, we have already made real progress. The policy has helped to reduce greenhouse gas emissions from agriculture by 23% since 1990, without reducing our production potential. The CAP is increasingly focused on sustainability and climate and the environment have become key priorities within the rural development programmes. We estimate that \in 57.2 billion of CAP funding for 2013-2020 is 'climate-relevant'. An assessment of the impact of the CAP on tackling climate change and greenhouse gas emissions will be carried out this year, with the results available next year. It is clear that agriculture will have to contribute to helping the EU meet its commitments under the Paris Agreement, and the challenge will be to further reduce agricultural greenhouse gas emissions and enhance the carbon sequestration capacity of agricultural soils in a way that is consistent with food security objectives.

As with all other policies, the Commission is consistently looking at where improvements can be made, and in our case we are focusing particular where CAP rules can be made simpler. I have always been open to ideas on how to do this, and I certainly welcome any recommendations from the ECA on how to improve our policy. In fact, my services have already taken on board a number of the ECA's most recent suggestions with regard to cross-compliance, for example by seeking to improve way in which information is shared between other Commission services and with national authorities. They have also launched a study on the possible costs of cross-compliance and started a review of the cross-compliance indicators.

R. C.: What do you expect from the next MMF budget discussions for the 2020 CAP?

Commissioner Phil Hogan: We've just celebrated 60 years of the EU – and the CAP has been around for 55 of those 60 years, in one form or another. President Juncker has made it very clear that agriculture is and will remain an important area for Europe.

Given its importance to the EU, it's no surprise that the CAP is always the subject of vigorous debate during the wider MFF discussions. But at the same time, it is no secret that

every part of the EU budget, including the CAP, will be under severe scrutiny during the negotiations. This is partly due to changing political priorities – issues such as immigration and security are top of the current agenda – and partly due to continued pressure on national budgets.

It is important throughout the negotiations that we do not lose track of what the EU budget is actually for – to adequately fund the policies we all agree are needed at EU level. Getting the policy right is just as, if not more, important than the question of how to finance it. This is one of the reasons why I have launched a consultation on the modernisation and simplification of the CAP that will lead to a communication later in the year and potential new policy proposals after that. It's important to stress that this process of reflection does not prejudge in any way the financial allocation for the CAP in the next MFF; in other words, the discussions we are having now are focused solely on policy and not on budget. How to shape the future CAP so that it delivers genuine value for money is my key concern. We need a modern and a simpler policy, and one that allows us to demonstrate clearly that every euro spent at the EU level was worth spending.

Malta EU Presidency – Priorities

Visit by Malta's Minister for Finance Hon. Prof. Edward Scicluna 29 March 2017

By Rosmarie Carotti





Minister Scicluna had meetings with the President and Members of the Court and gave a presentation to all staff on Malta's EU programme and list of priorities for the first six months of this year.

Professor Scicluna became Minister of Finance in March 2013. In 2009 he was elected as a Member of the European Parliament and Vice-chair of its ECON Committee, the Committee on Economic and Monetary Affairs.

The Maltese Presidency

Malta is holding the presidency of the EU Council from 1 January to 30 June 2017. As ECA President Klaus-Heiner Lehne said, Minister Scicluna's visit reflects the importance the Presidency of the Council gives to role of ECA and its work. The ECA has in fact recently published a number of reports which refer to the Maltese Presidency's priorities.

"If only the decision-makers paid attention to the specific reports of the ECA, which are so relevant and important", Minister Scicluna said. He knows how important it is to be disciplined and transparent having been on many committees of regulatory bodies, banks and private institutions.

Malta is the smallest country in the EU to take over the EU Presidency which is now half-way. The present times are not easy: The US have an agenda which is challenging the accepted European standards as far as trade, globalisation and taxation is concerned. On the other side of the Atlantic, the Brexit was launched. This is not a coincidence.

People do seemingly irrational things because they are afraid of terrorism, migration and economic recession, feels Minister Scicluna. There is lack of faith in politicians delivering work and prosperity. Capital and people are there but they are idle. It is not easy to talk about the future of Europe with this scenario.

The priorities of the Maltese Presidency

The priorities of the Maltese Presidency in ECOFIN are the legislative files under the Capital Markets Union agenda in view of the need for the EU to be more business friendly. It is not easy to get a company to be quoted, especially if small companies are concerned. Regulations are very demanding and the fees high. At the same time banks are de-risking, which is badly affecting EU investments with the third world.

Returning to the Capital Markets Union there is the securitisation file to be discussed with the European Parliament and various proposals like the one concerning Fintech. FinTech, the abbreviation for financial technology, is mainly used to refer to firms that use technology-based systems either to provide financial services and products directly, or to try to make the financial system more efficient. Digital finance, for example, is one of them and considered to be the future. More initiatives are coming from the Commission on that. There also is the question of VAT on e-commerce and e-books.

Concerning taxation, what was acceptable ten years ago is no longer acceptable today. This applies to tax avoidance. EU citizens do not want big companies to play one country against another in order to avoid paying what should be paid. In tax Minister Scicluna is proud that Malta has managed to clinch a deal, the Anti-Tax Avoidance Directive 2. The EU now wants non-EU countries to have at least the minimum standards which apply in the EU.

The Presidency also wants to address the issue of non-performing loans, but above all tax certainty, which was also brought up in the G-20 meeting in Baden Baden where *Scicluna represented the* EU *Finance Ministers*.

Brexit is quite unfortunate, says Minister Scicluna and a divorce which is coming at the wrong time when the EU should be celebrating 60 years of marriage. Because of its association in the past with the UK, Malta is a careful observer and sensitive to what is happening in the North. But definitely there will be costs. And the Europeans will have to ensure that rules are abided by.

Refugees are forced to flee their country and are a humanitarian issue. They cannot be rejected. Economic migration, on the other hand, has nothing to do with war but with extreme poverty and extreme income differences. The differences between the EU and Africa are widening and providing Africans with a decent living is needed to contain external migration. Boosting private investment in North Africa is one of the priorities of the Maltese Presidency of the Council.

In replying to questions put forward by the audience, Minister Scicluna addresses various issues ranging from an agreement with Libya to a harmonised corporation tax.

Concerning Libya, Malta's efforts to stabilise Libya are now more important than ever. Minister Scicluna stresses that Malta keeps good relations with all the factions in Libya and is serving as a peaceful mediating country.. This trust is important.

Concerning the second question, Minister Scicluna declares that there is nothing wrong with competitive taxation as long as there is the rule of law. But he is against international companies playing regimes against each other and transferring profits to low-tax countries. The Maltese presidency senses that there are many countries who are not in favour of recent re-launch of the common consolidated corporate tax case (CCCTB) - a common tax rule to calculate business tax across the EU. But as President of Ecofin Malta would push to deliver the first of a two phased approach.

To conclude, it was a good and exceptional meeting in presence of the all ECA's Members including the Member from Malta, Leo Brincat.

Bank resolution in Europe – Preparing for the ECA's first performance audit obligation

By Matthias Blaas, auditor

In the aftermath of the 2008 financial crisis the legislator decided to establish a European Banking Union. Currently this consists of the Single Supervisory Mechanism (SSM), under the responsibility of the European Central Bank, and the Single Resolution Mechanism (SRM). The SSM is responsible for directly supervising the most significant banks in participating Member States. The Single Resolution Board (SRB), a European agency, is responsible for implementing the SRM by preparing resolution plans for most significant and cross-border banks and, if necessary, for resolutions of those entities. The Banking Union may be expanded in future to include a Single Deposit Guarantee Scheme or a European Deposit Insurance Scheme (EDIS).

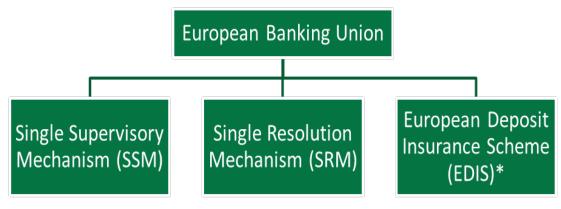


Figure 1: The three pillars of the European Banking Union (*Planned)

To ensure that the rules are applied consistently and that the EU's financial interests are safeguarded during a resolution, the legislator also gave the Court its first ever contingent performance audit obligation. Normally, as the guardian of the EU's finances, the Court chooses its performance audits independently based on an internal risk evaluation and prioritisation process. However, Article 92 of the SRB's founding Regulation (EU) No 806/2014 confers on us a specific obligation. If the Single Resolution Fund (SRF) is used or the Commission makes an assessment of Fund aid, we are required to carry out a comprehensive performance audit within a specified time frame.

This obligation necessitates expertise in a very specialised area. We have taken several steps to ensure that we are fully prepared to discharge our duties in this regard:

- The first thing was to strengthen our team of internal experts on financial and economic governance. A part of the team was responsible for producing a first audit report on the SSM, which was published in November 2016.
- We have also established an audit team, consisting of eleven auditors from all chambers, to deal with the contingency of a bank resolution. The individuals selected have banking backgrounds and have received training on bank resolution and related topics. They will ensure the necessary human resources are available in the event the Court's audit obligation is triggered.

- In addition to this internal capacity, through a public tender the Court has set up a roster of external experts in bank resolution, risk management and valuation, as well as legal experts, who can provide valuable assistance in the event of a resolution or through consulting and training activities. Experts on the roster have already provided staff training.
- In cooperation with the European University Institute, we organised a training session in April 2017 on recovery and resolution proceedings under the relevant EU legislation. We plan to further intensify our cooperation with the EUI.
- In March 2017 we issued a call for a multiple framework contract for the provision of external expertise in the field of banking resolution. We are interested in working with firms with the necessary resources and expertise to assist us with our bank resolution mandate. Detailed information can be found in the tender documents.
- As a final component of preparations for our audit obligation, we have held several meetings with other stakeholders, such as the Commission, the SRB and the Council, and auditors have attended external conferences and seminars to gather academic and market perspectives.

Based on all this preparatory work, we decided to conduct a performance audit on the Single Resolution Board. The task was made a priority in the Court's work programme for 2017. The audit is now underway and a report should be published in winter 2017/2018.



Special Report N°02/2017



Published on 5 April 2017

The Commission's negotiation of 2014-2020 Partnership Agreements and programmes in Cohesion: spending more targeted on Europe 2020 priorities, but increasingly complex arrangements to measure performance

Partnership Agreements are strategic investment plans for EU Member States which indicate their national spending priorities for the European Structural and Investment funds for the programme period 2014-2020. In this report, we examined whether the Partnership Agreements signed between the European Commission and the Member States help target the funds with a total funding volume of 350 billion EUR more effectively.

We found that, despite initial difficulties, the Commission and the Member States have better focused the funds on growth and jobs, identified investment needs and successfully translated them into objectives and results sought. They have set actions addressing the needs and identified outputs for programmes covered by the Agreements. However, an unnecessarily high number of performance indicators have been developed and performance measurement is not harmonised between the funds. We make a number of recommendations to the Commission and the Member States to improve the operation of the Agreements.

Click here for our full Special Report

Special Report N°04/2017



Published on 27 April 2017

Protecting the EU budget from irregular spending: The Commission made increasing use of preventive measures and financial corrections in Cohesion during the 2007-2013 period

We assessed whether the Commission's preventive measures and financial corrections were effective in protecting the EU budget from irregular expenditure in the area of Cohesion. Cohesion policy accounts for 37 % of spending from the EU budget and is to be some 350 billion euro for each of the periods 2007-2013 and 2014-2020. Responsibility for Cohesion spending is shared between the Commission and the Member States. Overall, we find the Commission has made effective use of the measures at its disposal. The Commission needs to remain vigilant in ensuring payments are free from error, improving its reporting procedures and making use of its new, stronger powers.



Focus

Special Report N°05/2017



Published on 4 April 2017

Youth unemployment – have EU policies made a difference?

An assessment of the Youth Guarantee and the Youth Employment Initiative

This report examines the progress made by the EU Youth Guarantee in ensuring that under 25's receive an offer of employment, education, apprenticeship or training within four months of leaving school or becoming unemployed. It also evaluates the Youth Employment Initiative, which increased financial support for those struggling the most. We found limited progress and results which fall short of expectations with regard to of providing a good quality offer to all NEETs (those not in employment, education or training). We make a number of recommendations both to the Member States and to the European Commission to improve the current and future initiatives in the area of employment.

Click here for our full Special Report

Special Report N°06/2017



Published on 25 April 2017

EU response to the refugee crisis: the 'hotspot' approach

In May 2015 the Commission introduced a new 'hotspot' approach in order to assist Greece and Italy in coping with the sudden dramatic increase in irregular migrants arriving at their external borders. In this report we conclude that, in both countries, the hotspot approach has ensured that most of the arriving migrants in 2016 were properly identified, registered and fingerprinted and their data checked against relevant security databases. However, despite considerable support from the EU, at the end of 2016 the reception facilities in both countries were still not adequate. There was also a shortage of adequate facilities to accommodate and process unaccompanied minors in line with international standards. The hotspot approach further requires that migrants be channelled into appropriate follow-up procedures, i.e. national asylum application, relocation to another Member State or return to the country of origin. Implementation of these follow-up procedures is often slow and subject to various bottlenecks, which can have repercussions on the functioning of the hotspots.

Click here for our full Special Report

15 Contrôles et évaluation de la gestion publique : quels enjeux ?

Par Danièle Lamarque, Membre de la Cour



Danièle Lamarque, Membre de la Cour

Le 28 mars, j'ai présenté à la Cour ma dernière publication Contrôle et évaluation de la gestion publique : Enjeux contemporains et comparaisons internationales, paru chez l'éditeur belge Bruylant.

Dans ce livre nourri de mon expérience professionnelle et internationale, j'analyse les différentes manières de rendre compte de la gestion publique, selon leurs objets et leurs finalités : la certification des comptes, le contrôle juridictionnel, l'audit de la performance, l'évaluation des programmes et des politiques publiques. Si les modalités du contrôle des fonds publics tendent à converger au sein de la communauté internationale, sous l'effet de l'harmonisation des normes d'audit et des normes comptables et de l'action d'INTOSAI, chacune de ces approches conserve néanmoins sa spécificité.

Le contrôle de la régularité, le plus confortable pour les auditeurs car il s'appuie sur des normes objectives, a dans quelques pays des prolongements juridictionnels : l'Italie et le Portugal en offrent les modèles les plus achevés. L'audit de la performance, revendiqué par les ISC comme l'approche la plus complète de la gestion publique, et l'outil le plus efficace de son amélioration, doit évidemment être conforté et développé. Dans tous les cas, le contrôle externe est complémentaire d'un contrôle interne qui tend, lui aussi, à se structurer et dont il faut soutenir le développement.

Quant à l'évaluation des programmes et des politiques publiques, développée par un groupe de travail d'INTOSAI, je m'attache depuis toujours à en promouvoir les pratiques : l'évaluation met en effet en œuvre des méthodes et des disciplines variées, de l'économie aux sciences sociales, pour rendre compte des résultats de l'action publique et de son impact sur la société, en recherchant les liens de causalité entre cette action et les résultats obtenus. Au croisement de la recherche et de la décision, l'évaluation met à jour la logique d'action à l'œuvre dans un programme ou une politique, afin d'identifier ses facteurs de succès ou d'échec.

Parmi les nombreux acteurs qui concourent au contrôle de la gestion publique, les Institutions supérieures de contrôle tiennent évidemment une place essentielle. Leur appui au Parlement, chargé du contrôle de l'exécutif, est variable selon les modèles institutionnels et politiques nationaux, mais cette relation tend à se renforcer partout dans le monde. Les ISC sont dès lors conduites à affirmer leur indépendance et à renforcer leur professionnalisme, gages de leur objectivité : leur légitimité ne résulte pas seulement de leur statut, mais aussi de leur capacité à démontrer leur utilité, à travers par exemple la pertinence et la publicité de leurs travaux, et la mise en œuvre de leurs recommandations.

Dans un monde incertain et ouvert, le contrôle et l'évaluation d'une action publique de plus en plus complexe et éclatée entre de nombreux acteurs, sont plus que jamais nécessaires. Les citoyens en attendent une garantie de transparence, de régularité et d'efficacité, qui ne peut toutefois pleinement s'exercer sans un exercice rigoureux de la responsabilité à tous les niveaux, administratif, managérial et politique.

We had a real impact on the political decisions on Maritime Transport in Italy

By Enrico Grassi, principal auditor Chamber 2



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The European Court of Auditors has had a real and visible impact on the political decisions and strategic planning on Maritime Transport in Italy. It has influenced changes in the Government's programming process, in its governance and administrative setup and in the projects it planned to implement in the near future.

Indeed, the current programming process at the Ministry of Transport now includes important value-for-money considerations drawn directly from our Special Report No. 23/2016 on Maritime Transport, such as considerations about overcapacity and the volatility of transhipment activities. In addition, recent actions undertaken by the ministry have been aimed at better coordination of strategies and infrastructure investments in order to avoid useless duplication of infrastructure in a country affected by overcapacity, at achieving greater efficiency through one-stop-shops for controls and customs checks and at concentrating investments in the 'last mile' connections of ports with the transport network. Finally, the Italian Government has decided to reduce the scope of planned big infrastructure projects that would otherwise generate overcapacity at some of the ports visited during the audit. All these activities are very much in line with the ECA's recommendations on maritime transport and therefore have the potential to address many of the observations raised in our Special Report.

The Italian Minister for Infrastructure and Transport also wanted to recognise the relevance of our audit by inviting me to the National Forum on Ports and Logistics in Leghorn (Livorno), as I had participated as mission leader for Italy and had visited the main authorities and stakeholders at central and ports levels. The invitation listed all the actions that the ministry had put in place after the audit work, and the text made clear reference to the impact our audit has had in Italy: "We would be very happy if you could be our speaker, considering that our encounter with you has inspired



Graziano Delrio (Minister of Infrastructure and Transport)

We had a real impact on the political decisions on Maritime Transport in Italy *continued*

a considerable part of this work... that the recent Special Report by the European Court of Auditors is a milestone for our political decisions, and considering how well you know the positive and negative aspects of the Italian ports system.".

The Forum in Leghorn (Livorno)

The Forum in Leghorn was hosted on 5 May by the Italian Ministry of Infrastructure and Transport through its in-house company 'RAM Spa' and proved to be very prestigious. Institutional keynote speakers included among others, Enrico Rossi, - the President of the Tuscany Region -, whereas thematic speakers included representatives of national institutions, of the OECD, the Commission and myself¹. Our speeches complemented each other and were well received by the approximately 450 participants, which included representatives of authorities and stakeholders, and the presidents of the Italian Port System Authorities.

The concluding speech was delivered by the Italian Minister for Infrastructure and Transport himself, Graziano Delrio, who highlighted the opportunities deriving from maritime transport for Italy, as a country surrounded by the sea, and the recent results and achievements, the challenges deriving from recent developments in the maritime transport market, the value-for-money considerations that influenced his decisions and the opportunities and challenges ahead with the new CEF calls for proposals, the Juncker Plan and the possibilities of blending public funds with private money.

Conclusions:

The ECA's impact on Italian political decisions on Maritime Transport was considerable and evident. This was certainly due to the good quality of the Special Report, but also to the favourable timing of our audit work, which coincided with the Government's adoption and implementation of its new National Strategic Plan on Ports and Logistics. This raised the Italian Government's interest in our audit work and in the inputs it could have provided to their programming exercise. Also the audit visits at many different ports helped the audit team to ensure good quality work and increased the ECA's visibility.

The above factors contributed to a frank and open discussion with the Italian authorities and to emphasize the constructive approach of a performance audit. The invitation I received to the Forum in Livorno was conclusive evidence of this, of the quality and impact of our audits and of the professional fulfilment our job can provide.



¹ For the full list of speakers and detailed information about the Forum, please visit <u>http://www.ramspa.it/</u> <u>sites/default/files/ram_2017_programma_eng_superdef.pdf</u>

Can Plato and Aristotle help us audit in the digital world?

Audit today: classical principles + digital tools

By Jesús Nieto, auditor in the Directorate of the Audit Quality Control Committee

This article is based on a presentation that took place in ECA on 6 March 2017.

Auditors have an important part to play in the digital world. We can do a great deal of good if we are dynamic and embrace digital technology. If not, we could wake up and find we are no longer needed.

In this article we talk first about basic principles of audit: why do we audit (for the common good) and how do we audit (by searching for the truth). Second, we briefly review the opportunities, uses and risks of data analysis. Finally, we see that visual techniques are very effective for data analysis and for communication.

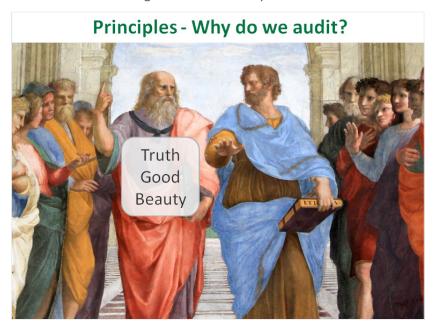


Figure 1 - Platonic qualities

I. Concepts and principles

According to Plato, "Truth, Goodness and Beauty" are the greatest qualities an entity can possess. Does audit have anything to do with truth, goodness and beauty?

Vítor Caldeira, former ECA president, said that "Our task is to help ensure that public money is invested to defend democracy and safeguard the wellbeing of citizens". In other words, we audit for the common good.

When we audit, we are seeking the truth (evidence), investigating **what** is happening, **how** it is happening and **why** it is happening.

The **what**, **how** and **why** can be clearly seen (figure 2) using the knowledge pyramid (Data, Information, Knowledge, and Wisdom). Some aspects of the reality we seek to measure (sheep, money, etc.) are recorded on paper or computers as **data**, bare numbers like "300". If I know about the subject I see **information** in the data: **what** is happening, 300 sheep are in some farm). By filtering and analysing the **information**, we can extract **knowledge** (**how** things work: correlations) and **wisdom** (**why** things are happening, causal relationships).



How does this relate to audit? Auditing is distilling knowledge and wisdom from the evidence hidden in a sea of information. We need to arrive to knowledge and wisdom to add value in the form of conclusions and recommendations. If we confine ourselves to information we are not adding value, we will remain at the "so what?" level.

It is important to remember that we audit "from the bottom up", based on the truth. We begin with a question about the reality and find answers based on evidence (truth). In this aspect audit is similar to good journalism as both are truth-based. Other activities, like advertising and propaganda, work "from the top down", starting with a message that will be used with or without supporting evidence.

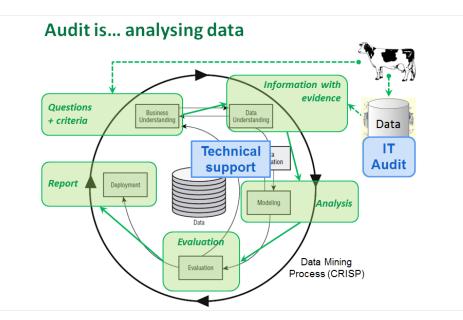


Figure 3 - The Audit and the Data Analysis processes

Audit today is... analysing data. How is an audit carried out? We look for **evidence** about reality in order to analyse it to answer our questions. We do not usually examine the reality itself but some "notes" about it on paper (bills, ledgers) now as data in files and databases.

The evidence is in that data, so the analysis becomes data analysis. In fact, the audit process is very similar to the standard data analysis process (Figure 3).

The difference between the two processes looks small: a new database and the data preparation. Naturally, we would call our data experts to help with this "small" data preparation. We might also ask IT auditors to verify if the systems providing data maintain their integrity.

In conclusion, audit today has a good deal in common with data analysis.

II. Data analysis

The opportunities for data analysis in audit can be summarised as follows:

- First, we can automate anything we want, provided we have digital information. This includes what we currently do manually, but also what we never tried doing because it would have taken years or perhaps we did not even dare thinking about. Now we can dream, and for example tell a data specialist, "if I could only find out who is planning to commit fraud..." This can be done, and it even has a name: social network analysis. In fact, to continue auditing in the same way but digitally is not the most intelligent approach to take. We should wholly rethink our audit plans and approaches to exploit the digital information.

- Second, we can process entire populations. This is amazingly powerful because it uses ALL the information spread across the entire population. This 100% processing can be done:

a) "Item by item": thus we can detect 100% of errors by checking the entire population, or

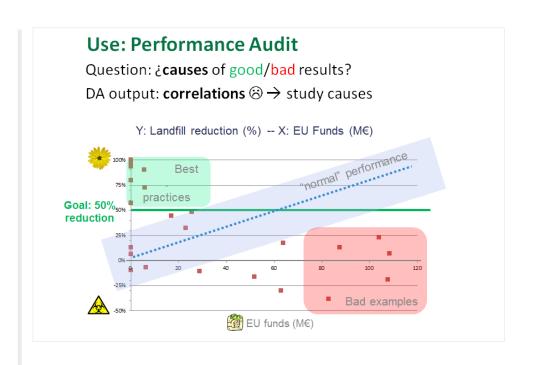
b) Globally: we can look at each piece of data in the context of the entire population. By examining one data item we see very little information, and cannot extract much knowledge. For example, the amount of one payment (€1,500) tells us nothing about its correctness. However, by putting that number in the context of the other amounts paid, it may appear suspicious. This is exactly what Benford analysis does, it just uses the context to detect anomalies!

We have already talked about verification of controls, but there are more uses for data analysis in audit.

We can create **risk-based samples**. This is **predictive data analysis**, as it predicts the risk of individual transactions containing anomalies. This is done with a data-mining tool that will create a risk model using our past experiences. These models do not take account of the causes of anomalies, only which attributes of a transaction correlate to the observed anomalies. We do not care about the causes, only about the accuracy of the model. At the ECA, having carried out a pilot exercise, we were able to predict with 94% accuracy which payments contained errors.

In **performance audit** we need to know the causes of good or bad results in order to recommend which positive actions to take and which negative actions to avoid. Unluckily, data analysis does not identify cause-effect relationships¹ so it does not give us direct answers. The correlations detected are possible causes that we should investigate to find cause-effect relations.

¹ Some analysis methods like Structural equation modelling (SEM) explore and model causal assumptions and relationships between observed variables (collected data) and latent variables (outcomes and impacts). There is some debate about their ability to produce validated causal conclusions. http://ftp.cs.ucla.edu/pub/stat_ser/r370.pdf



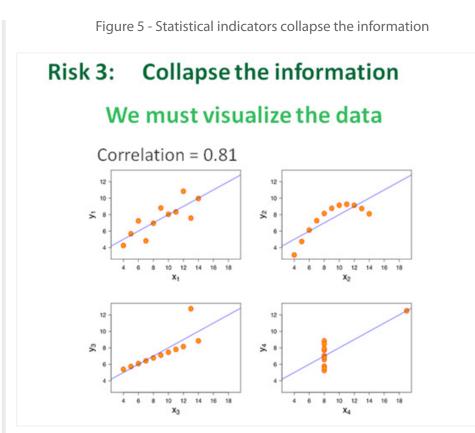


More precisely, in performance audit we look for causal correlations between inputs, processes, influencing factors and outcomes. For example (see figure 4) between "EU funding" as an input and "landfill reduction" as an outcome. We would expect to find that more money correlates with greater landfill reduction. However, we see on the chart that there is no such correlation, i.e. money is not a possible cause of landfill reduction, which happened in several countries. What we can see however, are good and bad results, the causes of which we should investigate in order to recommend what to do and what avoid doing.

Data analysis involves some risks. Three of which are:

1) Data analysis uses IT, which tends to become complex. That small task "data preparation" is not trivial. In fact, in a typical data analysis project, data preparation and model testing are 80% of the work. This risk of "unexpected complication" can cause delays and overruns in costs.

2) Another risk, more important because it can lead to erroneous results, is not having indepth knowledge of both the audited area and the data. The team needs to master both the "business" (i.e. the audited area) AND the details and semantics of the data. Auditors and data experts must work in coordination to integrate both sources of knowledge. If that coordination is imperfect, the results might be erroneous. One recent example in Spain, was where a false error was detected which indicated the payment of thousands of pensions to deceased people. The mistake originated in an imperfect occurred in respect of "data cleaning", which forgot that Spanish ID numbers are unique but "only among living Spaniards", as the ID numbers of deceased citizens are "recycled".



3) The third risk is in "collapsing" the information. Statistical indicators or "summary statistics" (means, standard deviations, correlations, etc.) collapse the information spread across the entire population. Data analysis based only on statistical indicators can be really poor, if not misleading, because it ignores the richness of the information spread all over the entire population. It could be compared to attempting to study the nature and characteristics of chickens with only chicken stock cubes as a data source.

The effect of "information collapse" is normally illustrated using Anscombe's Quartet, which shows four completely different populations with exactly the same statistical indicators (mean, standard deviation and correlation). If we only use the indicators we would think they are ONE, the first shown in Figure 5. However, if we visualise the four populations, we see that they are completely different. This is because visually we can perceive all the information spread over the population. In conclusion, we have to visualise the data.

III. Visualisation

The human mind works according to two different "systems"², which use different parts of the brain:

- **System 1 does perception**, is fast, uses little glucose, and operates unconsciously and in parallel. This system includes vision.

- **System 2 does reflection**, is slow, uses plenty of glucose, and operates consciously and sequentially, requiring attention. This system includes reading.

How do we audit? By reading and thinking, so using System 2.

Could we audit "using the 100% of the brain"? Yes, using visual data analysis!

² Here we offer a very simplified version of them. For a complete description we recommend reading: *Thinking, Fast and Slow by* Daniel Kahneman and *Mastermind: How to Think Like Sherlock Holmes* by Maria Konnikova.

Visual data analysis works by using data visualisations of the data that System 1 will perceive and that System 2 will use to think, using the auditor's experience, and distinguish between normal and abnormal. What System 2 is doing is using a model in the auditor's brain without the need of a data-mining tool. This is cheap, simple ... and it works!

Carlos Soler, team leader at the European Court of Auditors, audits EU customs. In the past the audit team used random samples: a few samples for every million customs declarations, which on examination were found never to contain errors or fraud. A few years ago, Carlos experimented by creating a risk-based sample with visual analysis. The tools he used were (a) visual representations: scatter plots with one dot for each customs declaration, showing weight (X) and declared value (Y), with filters for imported goods, country of origin and destination country; and (b) his brain, with his experience and knowledge of the sector.

In each scatter plot (see Figure 6), Carlos selected shipments (dots) that seemed too cheap compared to the rest of the sub-population (same type of goods, origin and destination).

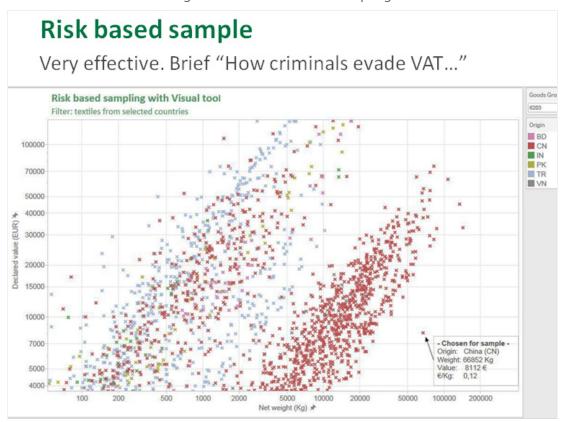


Figure 6 - Visual risk based sampling

One of the declarations in the sample had been detected by "Operation Snake" (a joint OLAF-China fraud detection operation) and was linked to suspected fraud of around € 20 million. Furthermore, Carlos's entire sample comprised of "hits" –that is, all the declarations were erroneous or fraudulent. What an impressive result by just "selecting coloured dots"!

We could stop there, with that near-magical result. Or could we do more with visualisations? Yes, we can also improve our communication. We can create attractive, attention-grabbing reports that are also convincing to readers. We can do this by using beautiful AND effective images to draw attention and convey our messages. To explain and convince, images must be carefully designed. This is far more than graphical design: it requires **conceptual design**, thinking first "what do I want to tell?", and then creating effective images to explain it.

To achieve this we can use various types of images: data visualisations (graphs), diagrams (infographics) and photos. With all them we can explain the information, knowledge and wisdom contained in the text of our reports.

IV. Conclusions

Audit is related to truth, goodness and beauty. We audit to do good and we audit by searching for the truth.

Today, audit means data analysis. We have to use the opportunity of processing entire data populations and thus miss no information.

To analyse data, audit teams need in-depth knowledge of the audited area and the details of the data. Auditors play a vital role in data analysis and must work closely with data experts.

Visual techniques enable us to exploit the skills of the human mind. Visual data analysis is cheap and effective. Furthermore, well-designed, beautiful and effective visualisations make reports attractive and convincing.

Thus, by seeking the **truth** and using **beauty**, we help to do **good** by ensuring that public money is used to safeguard the wellbeing of citizens and to defend democracy.

EDITION HIGHLIGHTS

- 05 Interview with Commissioner Phil Hogan
- 09 Malta's Minister for Finance talks about the priorities of the Malta EU Presidency
- 11 Bank resolution in Europe Preparing for the ECA's first performance audit obligation
- 17 A real impact on the political decisions on Maritime Transport in Italy

Cover:

- Priorities of the Malta EU Presidency: Leo Brincat, ECA Member; ECA President Klaus-Heiner Lehne; Minister for Finance Hon. Prof. Edward Scicluna
- Commissioner Phil Hogan (2014 2019) is responsible for Agriculture and Rural Development