

# CFRR>>

Centre for Financial  
Reporting Reform



WORLD BANK GROUP  
Governance

GROUP  
EXERCISE

Fraud Risk  
Assessment

## Internal Audit Training of Trainers



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# Contents

<b>FRAUD RISK ASSESSMENT.....</b>	<b>1</b>
Objective .....	1
Approach and Format .....	1
Expected outcomes .....	1
 <b>PART A: FRAUD RISK ASSESSMENT FRAMEWORK.....</b>	 <b>2</b>
 <b>PART B: SCENARIOS.....</b>	 <b>4</b>
Assignment 1: Payments, Disbursements and Cash .....	4
Assignment 2: Asset Management .....	6
Assignment 3: Procurement and Contracting.....	7
Assignment 4: Human Resources.....	9
Assignment 5: Information Technology .....	11
 <b>PART C: FRAUD RISK ASSESSMENT TEMPLATE.....</b>	 <b>12</b>



# Fraud Risk Assessment

## Objective

The objective of this group exercise is to enhance participants knowledge about performing fraud risk assessments by following a structured framework including elements of fraud risk identification, assessment, and response.

Strong internal controls, including maintaining a robust internal control environment, are the best way public sector organizations can mitigate fraud. Also, establishing appropriate risk assessment processes is an effective way for organizations to identify and evaluate where are their vulnerabilities and exposure to frauds. The internal audit functions have a significant role to play in the anti-fraud deterrence agenda by providing independent and objective advice to management on the present fraud risks and the controls which should be in place to mitigate those risks.

## Approach and Format

This group exercise further builds on the facts presented in the practical case study “Orotavia Capital City Municipality”, that is used throughout the Audit Training of Trainers modules.

Participants are asked to use the Risk Assessment Framework (Part A) to complete a set of scenarios (Part B) relating to different fraud risk areas and related controls and document their work in the Fraud Risk Assessment Template (Part C). Participants work in their table groups (for up to 45 minutes), followed by a presentation of the results of their work (5 minutes presentation time per each table group).

## Expected outcomes

- Develop and enhance participants’ knowledge to identify, assess and respond to fraud risks;
- Illustrate the use of a structured Risk Assessment framework in the public sector internal audit context.



## Part A: Fraud Risk Assessment Framework

A structured framework to Fraud Risk Assessment usually has several sequenced steps, including elements of fraud risk identification, assessment, and response which are applied in a rational, structured approach, including:

- **Step 1: Risk Type Identification.** There are two types of risks to be considered: (i) Risks that are present before management action are described as inherent risks and (ii) The risks that remain after management action are residual risks. Organizations' objectives should be focused on making any residual risks significantly lesser than the inherent risks.
- **Step 2: Inherent Risk Assessment.** After the risks are identified, then each risk should be assessed for relative likelihood and significance of occurrence. A possible scale for ranking could include:

Likelihood	
1	Almost Certain
2	Likely
3	Possible
4	Unlikely
5	Rare

Impact	
1	Catastrophic
2	Major
3	Moderate
4	Minor
5	Insignificant

- **Step 3: Identify Existing Controls.** No system of internal controls can fully eliminate the risk of fraud, but well-designed and effective controls can deter it. The following controls should be considered and identified:
  - Preventive controls: manual or automated processes that stop something bad from happening before it occurs, such as segregation of duties, introducing spending limits, etc.
  - Detective controls: can be manual or automated, but are designed to identify something bad that has already occurred, including budget to actual comparisons, exception reports, etc.
- **Step 4: Evaluating the effectiveness of existing controls.** This step involves assessing how well the controls are operating and if they are mitigating the identified fraud risks. The internal audit does not have a direct role in detecting fraud but considering its expertise in risk management and internal controls can provide independent and objective advice to management on fraud risks and the controls which should be in place to mitigate those risks.
- **Step 5: Evaluating Residual Fraud Risks.** After considering how effective the controls are, the residual fraud risk is determined, which includes assessing the likelihood of the



fraud occurring and the severity of impact if the fraud does occur. This allows fraud risks to be prioritized and aids decision making in terms of putting in place mitigating controls.

Impact / Probability	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	Medium	Medium	High	Extreme	Extreme
Likely	Low	Medium	High	Extreme	Extreme
Possible	Low	Low	Medium	High	Extreme
Unlikely	Low	Low	Low	Medium	High
Rare	Low	Low	Low	Low	High

- Step 6: Fraud risk response.** After evaluating the residual risk and considering the fraud risk controls in place, then a decision should be made if the residual risk is at an acceptable level, in which case no further action is required. However if: (i) properly designed controls are not in place to mitigate the identified fraud risk, or (ii) if controls identified are not operating effectively to reduce the risk to acceptable levels, then action must be taken which is usually enhancing the existing control or implementation of additional controls to mitigate the risks.



## Part B: Scenarios

Five different scenarios are provided below which relate to different fraud risk areas and related controls building on the integrated case study “Orotavia Capital City Municipality” that is used through the Internal Audit Training of Trainers Workshops. Each table participant group works on a different scenario as assigned by the facilitator. Participants should work in groups and use the information from the assigned scenario and apply the Fraud Risk Assessment Framework provided in Part A. Groups should use the Fraud Risk Assessment Template provided in Part C.

For the purpose of this case study, all key controls have been assessed as effective. Teams should focus on recommending to management fraud risks for mitigation and explain the reasons why these risks have been flagged for future risk response.

### Assignment 1: Payments, Disbursements and Cash

The Finance Department of Orotavia deals with issues relating to finance management, banking (both manual and electronic), accounting (recording additions and disposals of fixed assets, calculation of depreciation, posting salaries, posting other transactions - including petty cash, accounting estimates, changing accounting and reporting policies based on the changes in legislation and regulatory environment), financial and other reporting (obligatory by law and required by other regulations), and cash flow management. The Department also deals with the annual budgeting process and is involved in all issues of asset management in the Capital. The roles and responsibilities of Finance Department staff are clearly defined and they are supported by job descriptions. Due to the relatively big team working in this department, it is possible to achieve appropriate division of duties. During staff absences, such as vacations, system access rights exist to replace another user, but the replication is only temporary and specific software tracks such temporary access based on formal requests of the Head of Finance Department (or his Deputy). This also applies to authorization of transactions and the making of payments. There are limits established within Finance Department for payments of transactions. Clerks are allowed to make payments for transactions not exceeding a value equivalent to euro 50 if the invoice is authorized by the relevant staff of the department initiating the order. Invoices with value between euro 50 – 1,000 must be additionally authorized by the Head of Finance Department or his Deputy. These invoices must also be authorized by relevant staff of the department they relate to. Invoices with a value above euro 1,000 must be additionally authorized by the Mayor or one of his Deputies. Again, these invoices must be approved before payment.

The Finance Department is currently leading the process of modernizing and streamlining the banking services used by the Capital. The capacity of the Finance Department is still developing to deal with more complex finance issues such as municipal bond issues,



management of cash, fiscal discipline of planning expenditures and revenues, etc. Although capacity has improved in the past 3 years, the Finance Department still has a high staff turnover rate. Currently, the Finance Department comprises of 8 people plus the Department Head, who reports directly to the Mayor of Orotavia and his two deputies.

The Finance Department initiates ad hoc meetings with key personnel, including the Mayor, if there are any major issues to be discussed or if deviations from budget and key performance indicators are observed. There are also more formal meetings organized every quarter with key personnel in order to discuss the performance indicators and realization of the budget.

The Finance Department managed the process of issuing subordinated bonds last year. These were the first ever municipal bonds to be issued by Orotavia, and 55% of the offered bonds were purchased. The process has been seen as a good initial step to develop the market for this type of financing in the years to come. The funds generated through the bond issue were used for financing capital and investment needs of the city. The Finance Department lacks skills related to valuation and proper tracking of gains and losses on bonds issued and they are counting on the expertise of the Internal Audit Department to guide them in this more complex area.

During their review of petty cash and business trip costs settlement, the audit team discovered that some costs related to business trips to visit the refugee camp in the neighboring country were settled in cash. The terms of the donor financing stated that no costs related to business trips are eligible to be covered by the grant. The costs in question included per diems.

The Capital has many bank accounts in various banks and there are several open overdraft lines in those banks which are used to meet demand for funds in instances of shortfall. Some banks use electronic banking, some don't. Some bank statements are available online, others are not and are sent by post to the Finance Department of the Capital once a week or they are collected from the bank by authorized individual(s) from the Finance Department. The Finance Department will lead the process of modernizing and streamlining banking services used by the Capital.

Key controls of the Finance Department include:

- Appropriate segregation of duties in the Finance Department is achieved
- Temporary replaced access rights are based on formal requests. The same applies to authorization of transactions and making of payments.
- Payment limits are introduced (clerks up to euro 50; clerks and Head of Finance or his Deputy between euro 50 – 1,000; and clerks and Head of Finance or his Deputy and the Mayor for payments above euro 1,000)
- Verification of authorizations of costs by Department Heads – checking invoices for proper authorization.



- Monitoring key performance indicators and realization of the budget.
- Reconciliation and approval of settlements of business trips.

## Assignment 2: Asset Management

The Asset Management Department plays a major role when planning any major projects affecting the assets of the Capital – such as additions, renovation, or disposals. The Department comprises of 5 full time employees – people with technical backgrounds, mostly engineers, led by the Head of the Department. The Department engages ad hoc external consultants with specific specialisms as necessary, remunerated on a daily basis. The Asset Management Department maintains complete documentation of the Capital's existing assets in an asset register. The Asset Management Department periodically reviews the depreciation rates used by the Municipality and makes estimates for depreciation rates of asset additions. Members of the team are responsible for conducting periodical physical verification of assets and are involved in any projects affecting the asset portfolio of the Capital. It is common practice for teams from other departments (e.g. Procurement, Finance, Budget) to cooperate closely with the Asset Management Department on various projects.

There are currently two major projects involving the Asset Management Department: construction of a third bridge in the Capital; and introduction of a system of paid parking. The bridge would be built using a PPP, with the private partner financing the construction of the facility. Introducing the paid parking system would require investment in appropriate equipment as well as employing parking controllers. The project would be financed by the Capital's own resources, but it has not yet been decided if it will be through leasing, capital investment (purchasing of equipment), or by other means.

Project preparation costs incurred (e.g. feasibility study, salaries, and other costs) are recorded in the accounting system to be reflected in the value of the project. However, there is currently no clarity if all these costs could be capitalized. Initial control procedures have already identified costs being posted to incorrect codes in the accounting software.

Key controls of Asset Management include:

- The Asset Management Department keeps records and documentation of the existing assets of the Capital (asset register)
- Conducting periodical physical verification of assets recorded in the asset register. Any variations are identified and recorded promptly in the records.
- Identification of asset condition during physical verifications and proposals for write-off and disposals documented.
- The Asset Management Department reviews periodically the depreciation rates used and assigns new depreciation rates for asset additions



### Assignment 3: Procurement and Contracting

The Procurement process in Orotavia is usually a team effort, including representatives of all relevant departments of the Capital. These teams deal with specific procurement processes if the total value of the investment exceeds the equivalent in local currency of euro 10,000. Procurement processes below this value are concluded within the relevant requisition departments (i.e. the department that will be the recipient of the goods or services). For all procurements, at least three competing offers should be obtained for the bid, which are assessed taking into account elements like: the price, payment conditions, the reputation or experience of the supplier, assessment of prior cooperation with the suppliers, etc. In such cases the selection of the supplier is suggested by the relevant requisition Department and must be authorized by the Department Head and by the Mayor or one of his deputies. For procurements exceeding euro 10,000 a special procurement team is being created. The Capital does not have an IT solution for managing the approval of procurement – approvals are done on paper.

Entering into a contractual obligation involves key officials of the Capital. Contracts are negotiated according to the conditions set forth in the procurement selections and all contracts are reviewed by the Capital's lawyers. Contracts are signed by appropriate officials of Orotavia and similar contract value conditions apply as for procurements: contracts with a value exceeding euro 10,000 are signed by Departmental Heads in charge of the purchase and by the Mayor or Deputy Mayor (paper approval); contracts with a value below euro 10,000 are signed by Department Heads (paper approval). All contract conditions are reviewed and approved internally by Orotavia's Lawyers and by the Finance Department for potential risk of breaching laws or regulations, or for potential hidden legal exposures.

The Internal Audit Team examined the procurement process for the new paid parking system and contracting of a private company to construct the new 3rd bridge through PPP.

In order to select the best supplier for the equipment and to establish fair bidding procedures, a dedicated task force was formed led by Orotavia's Mayor and representatives of the Budget Department, Asset Management and Maintenance Department, and the Investment Planning Department of Orotavia. A delegation from the Capital travelled to a relevant trade fair in Frankfurt, Germany to undertake research and encourage producers of parking machines to take part in the international bidding process. The Mayor and two departmental representatives (Directors and/or Deputy Directors) from the task force participated in the one week-long business trip.

Upon return from the trip, the task force prepared the selection criteria for the bidding process, which initially included: the price of the equipment, cost of maintenance of the equipment, the length and conditions of technical support and conditions of post-purchase guarantee of the equipment, and user friendliness of the parking machines.



Following the preliminary presentation and discussion of the selection criteria among the task force, one additional criteria was included, based on personal comments from the Mayor. These criteria included the importance of having a color touch screen on each parking device, rather than only buttons for making payments. The Mayor justified the need for this feature, as it would make the payment process easier for the people, who were not used to toll parking equipment, to read what is on the screen. The Mayor's proposal was accepted by the task force and the selection criteria were updated accordingly by adding the criteria "color touch screen included".

The bidding process was announced with the opening and closing dates. The selection criteria were publicly announced, but the scoring system and percentage impact of each particular selection criteria on the total score was kept secret from the public and the bidders. The timeframe for the bidding process lasted one week and bids were obtained in closed envelopes. The task force analyzed the results and it turned out the winning German company proposed the most technically advanced model, with high resolution color touch screen. The conditions of post guarantee were similar to other bidders, however the purchase price of the equipment and related maintenance costs were 60% higher than the prices of the cheapest solution and 20% higher than the price of the second most expensive equipment.

A contract was signed for the purchase of an initial 40 units, combined with obligatory maintenance performed by the supplier company within the timeframe of the equipment guarantee of 3 years.

The Legal Department has recently been very busy, involved in negotiating a large PPP contract for a private partner to finance construction of the new bridge in the Capital. Following the preparation stage (e.g. defining location and architectural design of the bridge), the Capital invited companies to officially show their interest in investing through a PPP project. The process was not a success, with no companies expressing an interest in participating. The main reason stated was that the city and the country have no experience in this type of project, which is relatively big in scope and in value. It was also stated that the assumptions of the investment and revenue projections are prone to errors as the final outcome is absolutely unclear. The project seemed to be doomed, until representatives of the Ministry of Development started encouraging talks with the investment bank Rich Brothers. Some project conditions had to be modified by Orotavia. The length of the PPP, originally planned for 20 years assuming breakeven after 15 years, had to be extended, for example, with Rich Brothers obtaining the rights to run the program for 30 years before the rights and obligations would return to Orotavia. The agreement specified adherence to architectural and technical specification, but did not impose any obligatory financial burden of adjustments made to equip the bridge with tram infrastructure. Such decisions would need to be made with the mutual consent of both Orotavia and Rich Brothers. Given the Ministry of Development's role in securing the final (and only) company selected, the Deputy Minister of Ministry of Development signed the contract.



The ongoing major reform of the Capital's IT infrastructure is managed by an independent IT consultant, Mr. Placheta, selected through a tender process. Mr. Placheta, founder and manager of his own IT development company – “Professional IT Solutions Ltd”, works closely with the IT task team, is helping assess the current IT outlook, and is involved in directing IT strategy for the future.

Key controls of Procurement and Contracting Process include:

- Predefined process that requires at least three competing offers for all selections.
- Consultations with lawyers and any relevant departments within the Municipality (including obligatory with Finance Department),
- Formal process for authorization in place:
  - Procurements and contracts below euro 10,000 require authorization of Department Head and by Mayor or one of his deputies
  - For procurements and contracts exceeding euro 10,000 the same applies plus a special procurement team is being created.

## Assignment 4: Human Resources

The municipality staff of Orotavia is dominated by supporters or family and friends of the ruling party - League for Citizens Prosperity. The Human Resources function in Orotavia is responsible for hiring, training, and developing the staff of Capital and some of its related ventures, e.g. office issuing ID cards, city parking controllers, and municipal police. The City public transport company, utility companies, and most schools and city hospitals have their own HR functions.

Department heads have the best understanding of the workload and future changes in their units, which require new hiring. Department heads request hiring of new staff as required, informing HR of the role and outline responsibilities of the new hires. The HR department drafts in detail the range of responsibilities, describes expectations from the candidates (including formal education requirements), and describes the conditions of hiring. This set of documents is then sent back to department heads for final review. Department heads update the documents if needed (and send back to HR for changes). If no further changes are required, department heads give their go ahead and the HR Department seeks approval for the new position/replacement from the Mayor (or his Deputy in the Mayor's absence). When the Mayor (or Deputy) is satisfied with the justification obtained from the department head, he/she sends back the signed request to the HR Department (paper approval). Based on this formal approval, HR starts the hiring process: the job announcement is posted on Orotavia's web page with clear requirements of the job, expectations from the candidates, and giving the final deadline for applications. The information regarding expected salary is not disclosed



openly on the web-page. The final job contract with the new hire is signed by HR, and the head of the relevant department.

Many employees are hired on the basis of short-term contracts, often renewed many times. This approach was adopted to save money on social charges for these types of employees. Labor law is changing in the country, requiring hiring such employees full time after the 4<sup>th</sup> extension of a short-term contract. HR and lawyers are currently investigating the impact and magnitude of the law change on the Capital. There have been three options identified: (i) hire new people every 6 months – this option would make the costs of retraining staff quite high; (ii) do nothing and continue the current practice – this option is favored by the Mayor, but opposed by HR and lawyers; (iii) consider opening permanent staff positions – this option is recommended by HR and lawyers, but opposed by the Mayor.

In the last year, the Capital has hired several new people, including two in the Finance Department, one in the IT Department and one in the Asset Management Department.

Another important role of the HR department is staff development and career planning for staff. Employees of Orotavia have the right to develop their technical skills according to a plan agreed with their management. This development plan is discussed at annual development meetings. During these meetings, staff performance is evaluated and they are encouraged to discuss career development including possible changes to their responsibilities, including changes of department when the opportunity or interest arises.

There is a formal code of conduct with ethical values, developed some time ago and still in effect. The code of conduct describes several ethical dilemmas and addresses issues of corruption, fraud, equal opportunities for staff, fair treatment, and empowering the work environment.

Key controls of Human Resources include:

- HR cannot initiate the need for new employees (except from their own department), Department heads request new staff recruitment.
- HR does not decide conditions of the contract and job responsibilities, but refines the descriptions of responsibilities, expectations (including formal education requirements), and conditions of hiring. Department heads review and update the documents if needed and send back to HR for further changes.
- Independent approval of new hires - approval for new position/replacement from the Mayor or his Deputy (in the absence of the Mayor).
- The Mayor (or Deputy) sends back the signed request to HR Department (paper approval).
- The final job contract with new person is signed by HR, and the head of the relevant department.





## Assignment 5: Information Technology

The IT unit is responsible for generic IT related issues of the Capital (such as IT infrastructure modernization and maintenance, access rights, periodic reviews of these rights, and security and reliability of IT structures) and for some cross-departmental functions within Orotavia (e.g. providing assistance during maintenance of accounting software, banking systems, etc.) The IT team comprises the Head of Unit and 3 IT specialists. The Head of the IT Unit reports to the Head of Finance Department.

The IT unit is responsible for managing systems access rights. Each employee with an employment contract (full-time or part-time) of the Capital has a specific ID with its password allowing access to the network. There is a requirement to change the passwords every 90 days and systems controls prompt users to make this change. Some employees have access to other specific software according to their role and function in the Capital. For example, employees from the Finance Department have access to accounting software, some also to the banking payment systems of various banks; employees of the Asset Management Department have read-only access to the fixed asset register; HR has access to the payroll system and HR database, etc. These are all different IT systems developed by different companies and require different access IDs and passwords. Access to banking systems is also restricted by using specific banking security tokens.

Approvals of transactions and contracts as well as approving HR related matters have not been digitalized and everything is currently approved on paper. The code of conduct is discussed during the orientation training for all new employees and their signature confirms their agreement to comply.

It is expected that the internal auditors would report any weaknesses in the system and would suggest improvements to the existing procedures and processes.

Key controls within General IT Controls include:

- A specific ID and password for each employee connected to the network changing every 90 days
- The IT system, including access rights and passwords, is centrally managed by the IT Department

Access to online banking systems is also restricted by ID and passport and some of them require the use of specific banking security tokens.



## Part C: Fraud Risk Assessment Template

Identified Fraud Risks	Likelihood	Significance	Total Inherent Fraud Risk	Existing Anti-Fraud Controls	Controls Effectiveness Assessment	Residual Risks	Fraud Risk Response

Note: For the purpose of this case study, all key controls have been assessed as effective. Teams should focus on recommending to management fraud risks for mitigation and explain the reasons why these risks have been flagged for future risk response.







