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How-to Note

Economic and Financial Analysis

Part I: Introduction to Economic and Financial Analysis

Imprint

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Introduction

The SDC Directorate decided in spring 2020 to implement Economic and Financial Analysis ('EFA') for all project phases with a budget above 6 million CHF, making it mandatory at the ex-ante stage. Project proposal phases below 6 million CHF are encouraged to present a solid argumentation of the value for money invested. This decision applies to all projects funded by the SDC – including project contributions - with the exception of core contributions to multilateral institutions and to Swiss NGOs, which follow the Guidance for Core Contribution Management (CCM).

This guide is comprised of two parts to instruct SDC Staff on the implementation of EFA.

Part I provides a basic understanding of Economic and Financial Analysis ('EFA') for all SDC staff. Part II provides practical guidance for SDC staff who mandate an EFA.

Why an Economic and Financial Analysis? And what is it?

“SDC is legally obliged to use the funds and assets allocated in an orderly, effective, cost-efficient, and economical manner compliant with the respective project objectives” (Financial Budget Act). Hence, the SDC needs to clearly show project results, including benefits of primary stakeholders; cost awareness and value-for-money considerations are important elements to assess whether the investment for an intervention will be, is or was justified (i.e. how many people can be reached and the benefits from every monetary unit spent).

EFA triggers discussions to improve a project, either by identifying options to lower critical costs or increase key benefits and helps to orient decisions.

EFA is part of SDC’s overall results-based management system. It is applied to (a) assessing a project’s efficiency regarding its net contribution to the national economic and social welfare in a country - *known as **economic analysis***; and (b) examining the financial return for different project stakeholders (e.g., target population, project entity, public and private institutions, and governments) to identify financial incentives or impeding factors for participants - *known as **financial analysis***.

Do you want to compare benefits with the money that was spent for a designated purpose? Do you want to know whether there are more efficient ways to achieve the same—or even more—impact?

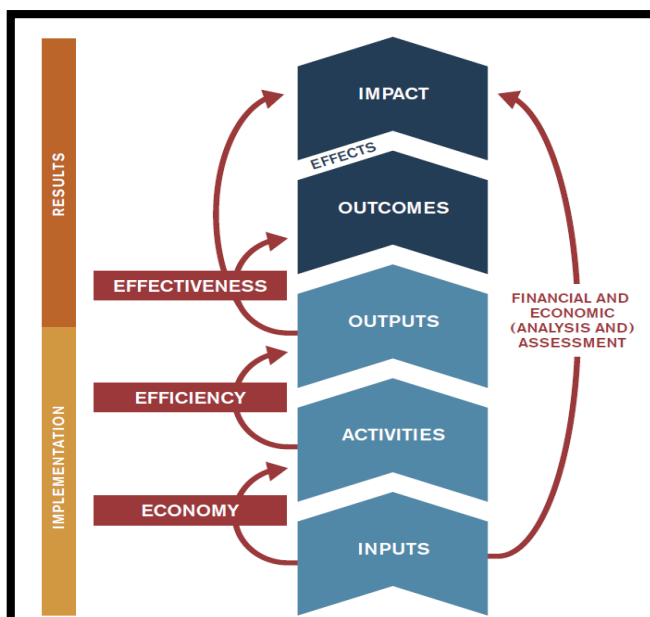
EFA is a powerful tool to help measure what we do, and the effects generated from activities. Using EFAs can make your project more effective and EFAs support using funds in the most efficient way.

EFA can be useful to project managers at the SDC and to implementers to monitor projects and guide decisions. These analyses are also important for accountability purposes.

EFA of projects provides the grounds for making decisions on the improvement of project sustainability based on the project’s financial and economic viability. It also promotes understanding of strengths and weaknesses during implementation and prepare for subsequent project phases.

EFA intends to answer the questions “is it worth it to invest?” (cost awareness and value for money), “are things being done right?” (project economy and efficiency) and “are the right things being done?” (project relevance and effectiveness). It is therefore a relevant and useful instrument for Project Cycle Management.

EFA helps define and assess the most important outcomes of interventions. Such assessments should be carried out throughout the whole project cycle along the results chain for monitoring purposes. The underlying questions stated above can be analysed based on the results chain shown in the figure on the right.



When and how to integrate an EFA in project cycle management and reporting processes

EFA is an important tool to improve the impact of SDC's interventions in relation to resources invested. Such analysis should be increasingly integrated into planning, implementation, monitoring and reporting processes whilst maintaining a pragmatic approach.

EFA is focused on comparing a situation with and without the project intervention. It can be undertaken before a project is implemented (ex-ante), during implementation, and after the project is completed (ex-post).

Ex-ante analyses project the future and are used to support decision-making on the worthiness of a project or activity. When planning a project, a joint reflection with stakeholders should test the theory of change and assumptions made (ex-ante projection) and help identify expected benefits.

During implementation, costs and resulting benefits should be observed and measured. This allows assumptions to be verified (or rejected), and the theory of change adapted as needed (adaptive management).

Ex-post analyses look back at events through the lenses of actual costs and results achieved (evaluation and assessment of a project).

When should you conduct an Economic and Financial Analysis?

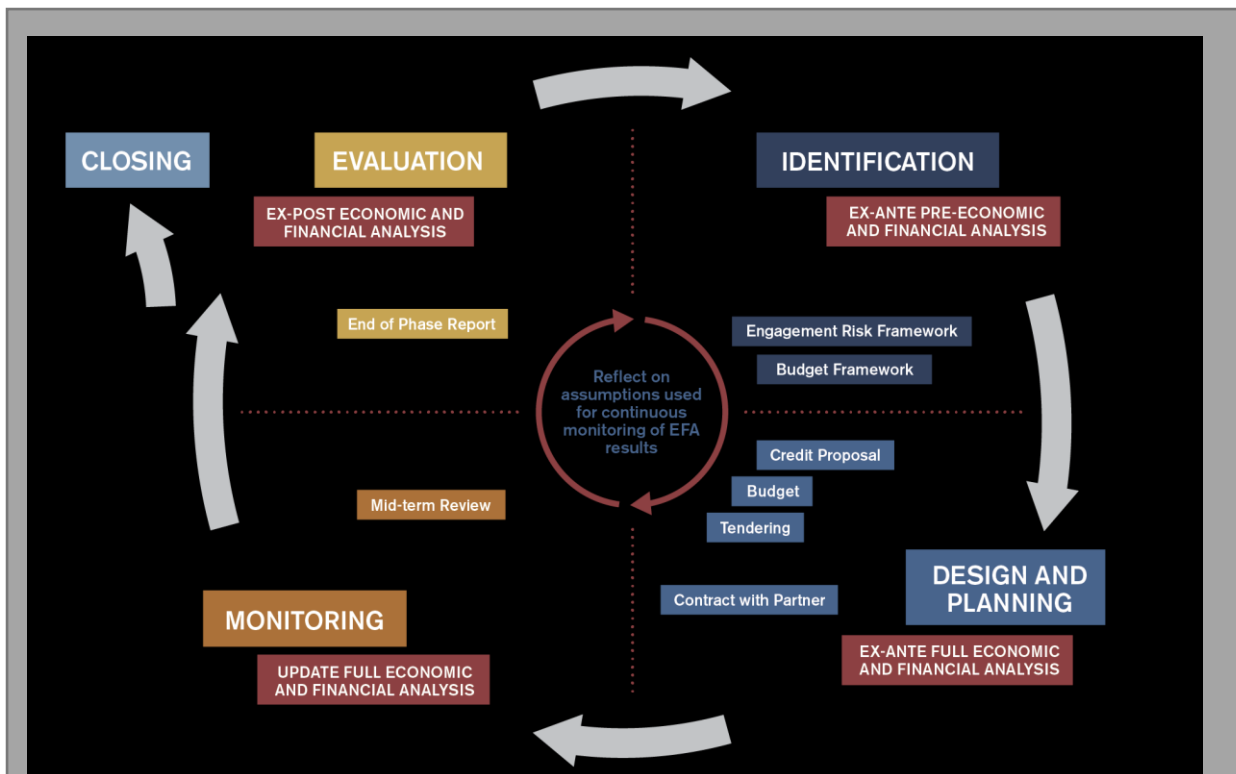
The SDC Directorate decided in spring 2020 to implement EFA for all project phases with a budget above 6 million CHF, making it mandatory at the ex-ante stage. This will provide relevant information on the project's efficiency and prepare key arguments for project design, steering and learning.

For project phases below 6 million CHF, full EFA are not mandatory, but project managers are encouraged to provide researched estimates on costs and benefits to support plausible arguments on 'value for money' (see section 3.4 of Part II of this guide for additional information).

An EFA in preparation for a new project or a new phase of an ongoing project to be tendered (ex-ante EFA) should be undertaken by a company that will not compete for the project implementation.

How is efficiency measured and managed? How is impact measured?

An EFA is not a panacea. But it brings many interesting and additional insights for decision-making and programme improvement. Many times, a pure 'cost-benefit analysis', which is one of the main EFA tools, cannot be applied in a scientific and complete way. An EFA shows trends and raises important questions that we must address. Applied with pragmatism, EFAs are very powerful tools for effective cooperation.



What does this graph tell us?

1. At the identification stage, there is an ex-ante pre-EFA to assess project worthiness and make projections.
2. While setting up and planning the project phase, the ex-ante full EFA provides an indication of the project's viability and creates a baseline.
3. At the implementation/monitoring stage, the EFA helps project steering (e.g., mid-term review). If properly integrated into the implementer's monitoring system, EFA could be applied as a regular exercise, where updated project costs and benefits can be compared. This would contribute to a robust monitoring system.
4. At the evaluation stage, the EFA supports decisions to terminate, continue or scale up. To generate lessons learnt, an ex-post final EFA is useful to build more resilient projects.

Types of EFA for each project context

What kind of EFA should you use?

There are a variety of EFA methods to choose from, and they should be used according to the project's context, content, approach, timing, and available resources.

The most well-known EFA method is the **Cost-Benefit Analysis (CBA)**, which is applied when a clear attribution of costs and monetised benefits can be established (for example, when x number of people improve their incomes by y CHF). For benefits that are not clearly tangible but can be valued in monetary terms, the cost-benefit analysis can be done with valuation¹.

¹ an estimation of the monetary worth of something

Cost-Effectiveness Analysis (CEA) is used to compare alternative project approaches toward a goal or objective that has been decided but is difficult to estimate in monetary terms.

For projects that are mainly active in the areas of humanitarian aid, peace building system development and reform (e.g., governance), it might be virtually impossible to isolate and quantify the attributable benefits. In this case, estimates of benefits should be assessed with a mix of quantitative and qualitative elements and logical connections through narratives. This involves collecting economic and financial data to allow a plausible argumentation and an informed and transparent judgment on the potential consequences of a given project and merits of other methods. To avoid manipulation of results, it is important to highlight assumptions and hypotheses that allow for different scenarios.

The decision tree below supports the selection of best approaches for the intervention and is further detailed in Part II of this guide.

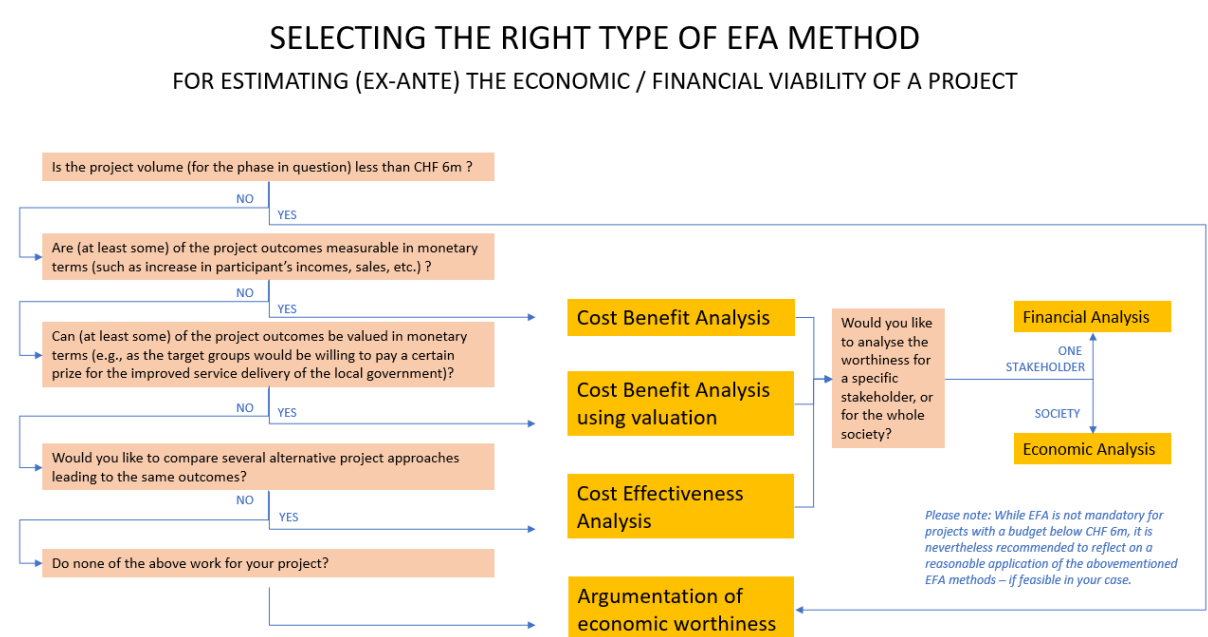


Figure 1- Decision tree to select the right type of EFA method

Application of EFA results

How to read EFA with the example of CBA

Imagine a very simple development project that provides technical assistance for vegetable farming in a small village. The 4-year project has an initial investment cost of 0.5 million CHF (e.g., construction of a storage building). We assume that the yearly costs for inputs and maintenance are 1 million CHF. The production and storage will probably start slowly; in year one, additional vegetables worth 0.75 million may be sold on the market. From the second year onwards, we foresee that the increase in vegetables sold (compared to the situation before the project) is 1.5 million per year. At the end of the project, the storage building may still be worth 0.2 million (residual value of investment).

Based on this information and assumptions, we can draw the following **cash flow table**:

| | Year 0* | Year 1 | Year 2 | Year 3 | Year 4 |
|------------------------------|-----------------|-----------------|----------------|----------------|----------------|
| Investment costs | 500 000 | | | | |
| Total additional costs | | 1 000 000 | 1 000 000 | 1 000 000 | 1 000 000 |
| Total additional benefits | | 750 000 | 1 500 000 | 1 500 000 | 1 500 000 |
| Residual value of investment | | | | | 200 000 |
| Net benefits | -500 000 | -250 000 | 500 000 | 500 000 | 700 000 |

*Year 0 is a 'virtual' year when the funds are made available so that the project can begin in year 1.

As these costs and benefits occur over several years, they cannot be compared directly. We apply a **discount rate**² as an adjustment factor to future values that reflect their present value.

The internal rate of return (IRR) provides the rate of return to the invested funds. If this rate is higher than the discount rate (the commonly agreed rate of return for public investment), we can consider the project as financially acceptable.

| | Project may be rejected / revised | Project may be accepted |
|-------------------------------|-----------------------------------|-------------------------|
| Internal Rate of Return (IRR) | IRR < discount rate | IRR > discount rate |

For this project, we get an IRR of 35%³, which is clearly higher than common discount rates.

Sensitivity analyses

Decision makers at the SDC should challenge EFA assumptions and results critically by asking for **sensitivity analyses** (i.e., how the results change if critical factors are modified).

They need both to ensure that their specific questions are answered and to control (a) if all relevant costs and benefits were identified and accounted for (and if they are really attributable to the intervention); (b) what prices were used to value the listed costs and benefits (and why; are there benchmarks?); and (c) over what time period the analysis was conducted (until project's end or beyond?).

² The discount rate depends on the economic context; it is therefore different in each country. The information on the discount rate may be provided by the central bank of a country, the World Bank local office or any other development bank. There is no formula for deriving the discount rate. The analyst will have to use judgement in choosing an appropriate rate if not available online from official sources.

³ The IRR formula for this project would be: $0 = -500\,000 + -250\,000 / (1+r) + 500\,000 / (1+r)^2 + 500\,000 / (1+r)^3 + 700\,000 / (1+r)^4$

We can obtain the IRR with trial-and-error method – or by using the Excel formula.

Sensitivity analyses describe how a change in key parameters, prices and quantities would affect the EFA indicators. Variations, positive or negative, are likely to occur during project implementation (e.g., variation of benefits, change in costs) and affect the project's financial and/or economic performance and results. The most relevant question to be answered is: "How will changes in assumptions and prices affect project performance and outcomes?"

EFA sensitivity analysis can contribute to better project design and risk assessment and can inform decision-making for the efficient allocation of project resources when designing mitigation measures. Decision makers then need to consider the project through this information, bearing in mind all other non-economic factors.