Payment Mechanism

Full Description

The payment mechanism defines how the private party to the PPP is remunerated. Adjustments to payments to reflect performance or risk factors are also important means for creating incentive and allocating risk in the PPP contract, as described in the **EPEC Guide to Guidance** (EPEC 2011b, 24).

Iossa et al (Iossa et al. 2007, 41–49) provides a helpful overview of payment mechanisms for PPPs. The basic elements of PPP payment mechanisms can include:

- **User charges**—payment collected by the private party directly from users of the service
- **Government payment**—payment by the government to the private party for services or assets provided. These payments could be:
    - Usage-based—for example, shadow tolls or output-based subsidies
    - Based on availability—that is, conditional on the availability of an asset or service to the specified quality
    - Upfront subsidies based on achieving certain milestones
- **Bonuses and penalties, or fines**—deductions on payments to the private party, or penalties or fines payable by the private party, due if certain specified outputs or standards are not reached; or conversely, bonus payments due to the private party if specified outputs are reached

A PPP payment mechanism could include some or all of these elements, which should be fully defined in the contract—including specifying the timing and mechanism for making the payments in practice. Key considerations in each case are described briefly further in this section.

Defining user charges

When a concession is paid by charging users, the approach to tariff setting and adjustment becomes an important risk allocation mechanism. In some PPPs, the private party may be free to set tariffs and the tariff structure. However, in many cases, user-pays PPPs are in sectors with monopoly characteristics, and tariffs are typically regulated by government (along with service standards), to protect users. A **PPIAF note on tolling principles** (Bull and Mauchan 2014) discussed toll policy trade-offs and risks. The key question for risk allocation is how tariffs will be allowed to change—for example, with changes in inflation or other economic variables, or changes in different types of cost and who can trigger a tariff revision.

Tariffs can be controlled by establishing tariff formulae in the PPP contract, or by regulation, or a combination of the two. For example, a tariff formula may be set that establishes initial tariff levels, and a formula by which the tariff is allowed to regularly, automatically adjust in line with inflation. The contract may provide for regular tariff formula reviews, at which point other factors could be considered—as described further in Adjustment Mechanisms.

Kerf et al Guide to Concessions (Kerf et al. 1998, Sections 3.3 and 3.4) provides a helpful overview on price setting, and price adjustment for user-pays concessions contracts. The **World Bank's toolkit on water sector PPPs** (PPIAF 2006, 108–118) also discusses tariff indexation and resets as a risk allocation mechanism for user-pays PPPs.

For further information on tariff-setting and adjustment, there is a wide literature available on different approaches to tariff-setting for infrastructure regulation. The **World Bank's Body of Knowledge on Infrastructure Regulation**, available online (PURC 2012), includes a module on price setting (that is, setting the overall price level), and a module on tariff design (that is, how tariffs may vary for different

customers or circumstances). Both modules describe key issues and provide extensive links to further resources.

Defining government payments

Key considerations when defining government payments include the following:

- **Risk allocation implications** of different government payment mechanisms. For example, under a usage-based mechanism, demand risk is either borne by the private sector or shared; whereas an availability payment mechanism creates an alternative reward mechanism not related to the level of demand. Providing an upfront capital subsidy means the private party bears less risk than if the same subsidy is provided on an availability basis over the contract lifetime. **Irwin's paper on fiscal support decisions** (Irwin 2003) describes some of the trade-offs between different types of subsidies to infrastructure projects (alongside user payments), and how governments can decide which is appropriate.
- **Linkage to clear output specifications and performance standards**—linking payments to well-specified performance requirements is key to achieve risk allocation in practice. See Performance Requirements for more resources on specifying output and performance targets in the contract. The section on defining bonuses and penalties provides more on how adjustments to payments should be specified.
- **Indexation of payment formulae**—as for tariff specification, payments may be fully or partially indexed to certain risk factors, so the government bears or shares the risk.

The **EPEC Guide to Guidance** (EPEC 2011b, 24) provides a helpful overview of how to define the payment mechanism for government-pays PPPs. **Yescombe** (Yescombe 2007) provides more detailed description of the different options and their implications for risk allocation and bankability. A **note developed by the Scottish Government** (SCT 2007) describes experience with defining and implementing payment mechanisms in PPPs.

Defining bonuses and penalties

Under both government- and user-pays PPPs, bonuses and penalties can be tied to particular outcomes. Under government-pays contracts, bonuses and penalties are typically adjustments to regular payments. Governments may also provide bonuses or charge penalties under user-pays contracts.

Iossa et al (Iossa et al. 2007, 46–47) provide an overview of performance-based payments. The **Scottish Government note on designing payment mechanisms for PPPs** (SCT 2007, 9–13) emphasizes the need to calibrate the payment mechanism—that is, to check the financial impact of penalties under different possible combinations of under-performance. The model contracts in Examples of Standardized PPP Contracts and Contract Clauses provide further examples of the use of bonuses or penalties. For example, the **United Kingdom's standardized PPP contracts** include a chapter on payment mechanisms (UK 2007, Chapter 7), which also describes calibration of penalties and bonuses based on financial analysis.

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