4. Concession award

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The success of a concession depends not only on getting the provisions of the contract right, but also on designing an appropriate method for awarding the concession. The issues include:

- Whether to use competitive bidding (or some other method) to award the concession.
- Whether to have a prequalification process for interested bidders.
- How to structure and evaluate bids.
- Whether to have sealed or voice bids.
- Whether to have single or multiple bidding rounds.

The design of the bidding and award procedures can have a significant impact on the economic efficiency and transparency of the concession. This chapter describes options for approaching these issues and summarizes recent lessons from international experience.

It is important to note that the options described below do not necessarily conform to procurement guidelines required by some multilateral institutions for projects they finance. Rather, the discussion attempts to address a wide range of options and their merits and limitations without pointing out how these practices might deviate from multilateral procurement guidelines. But, it is important for governments to bear these guidelines in mind when designing a concession award procedure if they are to preserve the possibility of donor financing for that project.

4.1 Choosing the Method of Award

There are a wide variety of concession bidding and award procedures and a range of options for the detailed design and implementation of these processes. Essentially, however, the methods can be broadly grouped into three categories: competitive bidding, direct negotiations, and competitive negotiations. In practice, these methods constitute a continuum, and any award process is likely to incorporate elements of competition and negotiation at various stages. The techniques for selecting a private partner or project may be contrasted more generally with a system of free entry, in which there are no formal selection procedures (see chapter 1).

4.1.1 Competitive Bidding

Under a competitive bidding process, tendering generally involves the following elements:

- Public notification of the government's intent to privatize an existing infrastructure service or award a concession for a new private infrastructure project or service, generally including a request for expressions of interest.
- Distribution of information memoranda, bidding documents, and related draft contracts to potential bidders.
- A formal process for prequalifying potential bidders.
- A formal public process for presenting proposals, evaluating proposals, and selecting the winner.

Within this broad framework there may be important design differences on, for example, whether and how to prequalify

bidders, how bids will be structured and evaluated, and how offers will be presented and awarded. These issues will be described in detail later in the chapter.

Most countries favor competitive bidding. Governments generally cite three reasons for using competitive bidding: it ensures transparency in the contract award, it provides a market mechanism for selecting the best proposal and typically results in lower costs, and it stimulates interest among a broader range of potential investors. Competitive bidding is easiest to design and implement when the product or service required is fairly standard, the technical parameters can be defined with reasonable certainty in the bidding documents, and there is limited scope for innovation and creativity on the part of an operator.

Virtually all governments use competitive bidding for privatizing and concessioning existing infrastructure services for these reasons and because most countries have public procurement rules in place that mandate public bidding for the sale or concession of all government assets. In the case of new infrastructure projects involving some form of monopoly franchise, most governments favor competitive bidding (if a formal process is in place), though some have the flexibility to use other methods (such as competitive negotiations or direct negotiations) if the project circumstances warrant a different approach (see section 4.1.2).

As mentioned above, donors may require particular procurement practices and will typically mandate competitive bidding in the projects they support. The World Bank, for example, has developed procurement guidelines dealing specifically with concession contracts (box 4.1).

Box 4.1 Guidelines for Selecting Concessionaires and Procurement under World Bank Loans

In January 1995 the World Bank adopted new rules dealing specifically with private infrastructure or concession contracts that it finances. The new guidelines link the way the private developer or operator is selected to the way it will have to procure Bank-financed goods, works, and services.

The main principle is that competitive bidding should be used at one of two stages. If the private concessionaire is selected competitively under international competitive bidding or limited international bidding, as defined in the *Bank Guidelines on Procurement,* the concessionaire is free to use its own procedures to procure contracts financed by the World Bank (as long as these come from eligible countries, that is, World Bank-member countries). When it is not selected competitively, the concessionaire will be expected to procure goods, works, and services on an international competitive or limited international bidding basis, in accordance with standard Bank procurement rules.

The World Bank determines whether a specific selection process meets the criteria set forth in its guidelines. It is therefore prudent to involve Bank staff from the beginning of the process if the government or concessionaire wants to hold onto the option of letting a competitively selected concessionaire procure goods and services using its own procedures.

Source: World Bank (1996).

4.1.2 Direct Negotiations and Unsolicited Proposals

Under direct negotiations, the project idea generally originates with a private sector sponsor, rather than with the government. A developer or operator seeks to negotiate directly with a government or government-owned utility on the terms and conditions for an infrastructure project, whether it be a management contract, concession *stricto sensu,* BOT, BOO, or privatization. There may, in fact, be circumstances in which a full-blown competitive bidding process may not yield the best result for consumers. Such instances could include:

- Projects in smaller municipalities, where it may be too costly to arrange a competitive bidding process or where it may be difficult to attract developers and operators.
- Emergencies and natural disasters, in which major projects or repairs must be completed rapidly.
- Projects involving proprietary or innovative technology.

In countries without a track record or a proven legal and regulatory framework for private concessions, governments may choose to enter direct negotiations for some initial projects on a pilot basis in order to gain experience and build a record with investors. This approach provides the necessary time and experience to properly design the framework for infrastructure concessioning before launching a broad competitive bidding process for other infrastructure projects.

There are several examples of direct negotiations for private infrastructure projects. Direct negotiations were used for the early independent power producers (IPPs) in Indonesia and the Philippines, although both countries have subsequently adopted competitive bidding. Twelve states in the United States with competitive bidding procedures in place for procuring power also allow direct negotiations under certain conditions and subject to specific rules. In addition, a number of states require no bidding, and utilities continue to negotiate directly and sign contracts with independent power producers.

The United Kingdom and the Australian State of Victoria are recent examples of governments that allow some degree of flexibility in public tendering of private infrastructure projects. In 1994 the U.K. government issued guidelines for ministries concerning the tendering of privately financed projects (HM Treasury 1994). The guidelines emerged from a lengthy public consultative process in which the government sought views from developers, financiers, and the public. The guidelines set out the framework for competition, competitive negotiation, and direct negotiation. They recognized that, "Competition must keep its central place in public procurement. Its form, however, will vary according to the value and complexity of individual cases… In the context of the private finance initiative the advantages in terms of stimulating innovation may in exceptional cases justify alternatives to competitive tendering."

The U.K. Guidelines further stipulate that direct negotiation with a single promoter is possible if:

- A private sector promoter identifies an entirely new project.
- A private sector promoter comes forward with a project in response to an invitation from a public sector body,

based on the delivery of outputs that are not specifically defined but that fall within broad functions, policies, or initiatives.

- A private sector promoter proposes to proceed with a project already identified by the public sector in a way that is genuinely innovative.

Similarly, in 1994 the Australian State of Victoria issued guidelines pertaining to the tendering of private infrastructure projects (Department of the Treasury 1994). The guidelines encourage private investment in infrastructure and allow developers to propose new initiatives. The government's policy is to proceed with open competitive bidding for awarding the projects, but the guidelines permit direct negotiation in circumstances "where the private sector proponent has offered the Government a proposal which embodies a unique and proprietary concept as an essential component of the proposal and where the proposal is cost effective when measured against the Government's benchmarks."

In general, in cases where governments do not use competitive bidding, they should introduce some degree of competition into the process, or otherwise replicate competitive forces, in order to ensure both transparency and economically efficient outcomes. Several possible mechanisms could be used. For example, if innovative designs or technology are being proposed, it may be possible to contract the design phase directly and then hold competitive bidding for implementation. If it is not possible to separate design and implementation, and the government proceeds without using competitive bidding, safeguards could be built into ensure transparency and efficiency. These could include:

- Using external advisers and consultants to assist the government in assessing proposals.
- Benchmarking against the cost of similar projects.
- Announcing the proposed project terms and conditions, and allowing other developers an opportunity to better the terms within a specified period—this feature is incorporated in the Philippines BOT Law (box 4.2).
- Establishing an independent advisory panel to review the proposed transaction.

Periodic rebidding of the concession would also help ensure longer-term economic efficiency in cases where the initial concession was directly negotiated.

4.1.3 Competitive Negotiations

It may also be possible to combine elements of competitive bidding with direct negotiation to promote transparency, while preserving the innovative or proprietary aspects of developers' proposals. For example, governments could initially use a competitive process to solicit proposals in response to broad output specifications and then negotiate directly with one or more developers. In this manner competition would be used to narrow the number of potential developers, and negotiations would be used to work out detailed terms and conditions of the contract. The government would have fallback bidders if negotiations with the preferred bidder failed.

Box 4.2 Philippines Build-Operate-Transfer Bidding—The "Swiss Challenge"

Under the Philippines BOT Law, national or local authorities may accept unsolicited proposals for BOT projects on a negotiated basis if:

- The project involves a new concept or technology and is not already listed on the roster of priority projects identified by the government.
- No direct government guarantee, subsidy, or equity is required.
- The project is submitted to a price test or 'Swiss challenge" from competitors.

The price test works as follows: the agency awarding the project must invite comparative proposals to any unsolicited proposal it has received. The invitation to tender must be published in a newspaper of general circulation for at least three weeks. The published invitation must inform potential bidders where to obtain tender documents, however, proprietary information contained in the original proposal is confidential and may not be disclosed in the tender documents. Competitors have 60 days to submit competitive proposals. If a lower-priced proposal is received, the original proponent has 30 days to match it and win the contract. Otherwise, the award goes to the lower bidder.

This challenge has been used, for example, in the case of a New Zealand developer who submitted a proposal to the National Power Corporation to rehabilitate and maintain a 350 mega-watt hydro plant, challenging an unsolicited proposal by an Argentine company.

Source: Republic of the Philippines (1994).

Alternatively, the government could negotiate simultaneously with several developers to further enhance the competitive aspects of negotiated transactions. This is often referred to as competitive negotiations. Under this method governments (or government-owned utilities) specify their objectives and solicit proposals from private operators through a request for proposals (RFP). The government (or utility) then reviews the proposals, selects those that are deemed technically responsive to the RFP, and negotiates the contract terms with the selected bidders. The process may involve simultaneous negotiations with several bidders with the objective of awarding a single contract. Alternatively, it may result in the award of several contracts.

This competitive negotiation approach is well suited to projects in which:

- There is scope for innovation and different approaches by developers, and authorities hope to elicit imaginative proposals for projects.
- It would be difficult to secure financing on the basis of standardized contract documents.

In these circumstances simultaneous negotiations with several prequalified bidders may be the preferred approach for awarding one or several projects.

Many states and utilities in the United States use this approach for procuring new power generation. A 1991 survey of procurement methods undertaken by the National Independent Energy Producers (an association of independent power

producers) demonstrated strong support for this method, citing three advantages. First, since the terms are not fixed, it permits developers to be more creative and tailor projects to the particular needs of the utility in terms of timing, siting, fuel supply, design, performance, security, and contract-termination provisions, once they reach the negotiation stage. Second, it removes the potential incentives that arise under price-based competitive bidding for some bidders to offer unrealistic projects that will do well when evaluated against price criteria, but may never get built. Third, it offers a more rational way to screen qualified potential suppliers.

Another example of the use of competitive negotiations is the Hong Kong East Harbour Tunnel, involving the construction and operation of a tunnel between Hong Kong and Kowloon. The government advertised in the *Government Gazette* for bids for the construction and operation of the proposed tunnel. Bidders were given a very preliminary engineering design and traffic estimates prepared by the government. Interested bidders were required to submit technical and financial proposals. The technical proposal had to specify project details, including whether the bidder would also build a parallel tunnel for the metro (bidders had the option of including this in their proposal). The financial proposal had to include the proposed toll to be charged to users during the 30-year life of the concession.

Of the nine proposals received, eight passed to the next stage; one was rejected on the grounds that the consortium did not have sufficient financial capacity or technical and operational experience. The government, with the assistance of an external advisor, reviewed the eight proposals for three months and, based on this review, shortlisted three bidders. The government asked them to provide additional information on their proposals. Upon receiving this information, the government entered into parallel negotiations with all three. Following competitive negotiations, bidders were asked to resubmit their toll proposals. A winner was selected, and a letter of understanding signed. The agreement was then ratified by the Legislature.

Regardless of the method of award chosen, the solicitation and evaluation of bids and the negotiation of contracts involve complex legal, financial, and technical issues. It is necessary to stress the importance of qualified, professional advisers to the success of concession design and implementation. The issues involved in such projects typically lie outside the scope of traditional civil service work, and the use of specialized external advisers to the government is advocated, especially given that private investors will generally employ their own teams of experienced advisers on such projects. For more on the hiring of advisers see box 2.3.

4.2 Prequalification and Shortlisting

When awarding concessions for the provision of a monopolistic infrastructure service, governments usually want to ensure that the winning consortium has the technical and financial capacity to operate the concession successfully. They do not want to award it to an operator that offers the best deal on paper but later fails to deliver what was promised.

One way to reduce this problem is to design the concession contract so that it is attractive only to operators who

are confident that they can operate the business successfully. This can be done by writing a contract that imposes stiff penalties for poor future performance and requiring firms to post a bond sufficient to pay the penalties. If poor performance can be objectively observed, and the bidding parties believe that they will indeed forfeit their bond in case they fail to meet the contract's performance standards, this system should deter those who lack the requisite technical and financial capacity from bidding for the concession.

In practice, however, it may be difficult to enforce penalties specified under the contract, and the performance bond may not prevent bidding by overconfident operators. As a result governments will often go through a process of prequalifying prospective bidders to further weed out unsuitable firms. Prequalification may also be used to reduce the number of bidders, thus stimulating qualified firms to prepare good proposals.

In addition, governments typically limit the total number of prequalified bidders to a shortlist of three or four, because the costs associated with more bidders often exceed the benefits of additional competition. For bidders there are high costs associated with preparing bids and negotiating the transaction. A large number of bidders reduces the chances each has of winning the bid and hence discourages investment in the preparation of proposals. More bidders also raise costs to governments since officials and their advisers will usually face more requests for clarification or additional information, and more bids will have to be evaluated.

There are several issues that must be considered in conducting a prequalification of bidders, including:

- The type and minimum degree of experience and capacity required of potential operators.
- The criteria to be used for prequalification and the quantitative or qualitative method for evaluating potential bidders against these criteria.
- The form and extent of involvement by the lead operator in the bidding consortium (for example, minimum equity position, technical assistance contract, and so on).
- The stage in the bidding process at which prequalifcation should take place (for example, before bidding documents are distributed or at the time of bidding).

4.2.1 The Operator's Experience

Generally, governments seek bidders with a proven track record in the service being concessioned or privatized. But the degree of experience and capacity required of bidders will depend in part on the size and attractiveness of the market to be served, the sector and service being concessioned, and the number of established firms currently operating in the world market in this sector. There is a good argument for "right-sizing" prequalification to fit the concession and expected investor interest—that is, smaller concessions may set less rigorous prequalification criteria in order to ensure a sufficient number of bidders and, hence, real competition in the award process.

4.2.2 Prequalification Criteria

In a formal prequalification process governments often use quantitative criteria related to technical and financial capacity (table 4.1). These criteria generally refer to such aspects as:

- Operations by the bidder in one or more comparably sized markets (generally expressed in terms of the customer base in those markets).
- Financial strength of the bidder.
- Minimum operating revenues from a comparable service run by the bidder.
- Minimum required equity of companies in the consortium.
- Quality of service provision in comparable operations.

While many of these criteria reflect the size of operations, governments often include performance criteria to ensure that potential bidders demonstrate a minimum level of efficiency in their relevant operations elsewhere. These may refer to such items as labor productivity (volume of output or service per employee) and cost efficiency (operating costs per unit of service). The challenge is to identify the right parameters by which to judge quality. Performance criteria should be used judiciously, namely in sectors and services where cross-country comparisons are meaningful (not subject to wide variations in underlying conditions) and where performance data are reliable and verifiable by a third party (such as the home-country regulator).

Prior to setting the prequalification criteria, governments (with the assistance of their advisers) often undertake a preliminary "road show" to promote the transaction and assess the degree of investor interest. By doing this, they can set the criteria to ensure that there will be a sufficient number of bidders, based on their prior knowledge of investor interest and the technical and financial characteristics of potential bidders. While this procedure is by no means essential, it may avoid the unpleasant surprise of announcing criteria and finding that there are no interested bidders who qualify.

Alternatively, some governments have opted for a less rigid evaluation process without quantitative criteria. Bidders submit information on their experience and qualifications, and these submissions are reviewed by the government to ensure that firms' financial and technical capacity is satisfactory, but without using explicit quantitative criteria. This process gives the government more flexibility, but it is subject to complaints about lack of transparency from bidders who do not pass the screening.

In assessing a firm's prior experience with similar operations in other countries, it may be useful to review the company's performance data, regulators' reports, and customer surveys or opinion polls showing the level of public satisfaction with the service provided.

4.2.3 The Operator's Participation

Once the government has determined that it wishes to have a prequalification process, it may also specify the form that the operator's participation should take in the bidding consortium. Governments often want an experienced operator to have a long-term stake in the success of the concession and will insist that the operator have a majority (or at least a significant) equity stake in the bidding consortium. If the operator is a large multinational company, this would also enhance the bidding consortium's ability to raise financing. On the other hand many operators may find this requirement too onerous, particularly for

Table 4.1 Examples of Prequalification Criteria in Private Infrastructure Transactions

Sector	Country	Transaction	Prequalification procedure	Technical criteria	Financial criteria
Electricity	Peru	Lima electricity distribution privatization	Qualification at time of bidding; bidders must exceed a score of 80 percent against six weighted quantitative technical and financial criteria	Customers and energy sales per worker, total customers, and energy sales	Minimum total value of assets and net worth
	Argentina	Electricity distribution concessions	A guarantee to carry out the bidding process was required of bidders at the time of prequalification	Consortia to include qualified operator with minimum experience and ownership in consortium	Minimum asset value of bidding companies; proven increase of at least 10 percent in asset value in three years prior to bidding
Transport	Mexico	Concessioning of rail freight lines	Registration through written statement of interest; authorization of registered parties by the Ministry of Communications and Transportation based on uniform criteria	Demonstrated legal, technical, and administrative capacity	Demonstrated financial capacity
	Hungary	BOT for toll road	Invitations for pre-qualification based on approved preliminary design plans evaluated by expert assessment commnittee	Capacity of bidders to design, build, maintain, and operate toll road	Capacity of bidders to finance road without state aid
Water	Argentina	Argentina Buenos Aires concession	$30,000 fee for prequalification documents	Minimum population of largest city and aggregate population served by bidder	Minimum requirements for total annual billing and net share capital; consortium shareholding distribution regime

continued…

Table 4.1 Examples of Prequalification Criteria in Private Infrastructure Transactions (continued)

Sector	Country	Transaction	Prequalification procedure	Technical criteria	Financial criteria
	Bolivia	La Paz concession	Qualification process to take place at same time as economic bids debt-presented	Consortia must include water operator with minimum experience and extent of service	Minimum net worth and maximum debt-to-equity ratio of operator
Natural gas	Mexico	Concessioning of distribution	Registration of interested bidders and meetings between regulator and prospective bidders to clarify information prior to technical bids; small registration fee	Documentation of technical and administrative capacity	Documentation of financial capacity

Source: World Bank staff.

smaller concessions. Rather than requiring an equity stake in the consortium, an alternative is to require that the bidding consortium have an operating or technical-assistance contract with a qualified operator, that is, the operator would manage the company (or at least provide specified technical-assistance) but not hold any equity.

4.2.4 The Timing of Prequalification

The timing of prequalification is also important. Some governments have opted to hold prequalification early in the bidding process, that is, prior to the distribution of any draft bidding documents. Early prequalification formalizes discussions with potential bidders, since only prequalified bidders receive the draft bidding documents for comment, undertake due diligence, and participate in the bidding. This formnalization enhances the transparency of the process. One drawback of early prequalification is that it forces potential investors to form consortia early in the process and reduces their flexibility to change consortium partners during the preparatory phase. This problem can be mitigated to some extent by allowing the reorganization or merging of consortia prior to the actual bidding. However, governments may want to limit the merging of competing consortia in order to avoid collusion between bidders and to maintain a sufficient number of bidders.

Another option is to defer qualification until the actual bidding. With this approach bidders must prove that they meet qualification criteria established by the government at the time of bid submission. If they do not meet these criteria, they will be disqualified from the bidding. While deferring prequalifcation provides bidders with extra time and flexibility to form consortia, it also creates greater uncertainty among bidders concerning how many groups are likely to submit bids. The expectation of a large number of bidders may deter some investors from incurring the costs involved in preparing a bid.

4.2.5 Transfer of the Concession

While prequalification helps to ensure that bidders have the required technical and financial capacity to undertake a project, it does not ensure satisfactory future performance. As discussed in chapter 3, the concession contract should include incentives for efficient management and sanctions for poor performance. It is also important that regulatory institutions be in place to supervise and enforce contract compliance.

Often governments design concessions to preclude operators from transferring their shares (or operational management responsibility) in the concession company during the life of the concession. This restriction is designed to ensure that there will always be an experienced operator managing the concession. But it may make financing difficult to obtain, because lenders generally seek transferability rights in the event that operators default on their loans. The possibility of a takeover by another operator also gives the government a means of exerting pressure on an inefficient operator. A possible solution is to allow transferability to another operator, with the approval of the government, and provided that the new operator satisfies the original prequalification criteria.

4.3 Bid Structure and Evaluation

Given the complexity of many infrastructure privatizations and new investment projects, it is often difficult for governments to evaluate and compare proposals from different bidders. In designing the bid evaluation process, governments must decide:

- Whether to have a two-stage process involving the sequential evaluation of technical and financial proposals.
- Which specifications to include for the technical and financial proposals.
- How to assess whether a technical proposal is fully responsive to the specified requirements.
- How offers should be evaluated and compared.

4.3.1 Technical Proposals

Many governments have adopted a two-stage process (either in the place of or in addition to a prequalification round) whereby bidders present separate technical proposals containing business and investment plans. These proposals are evaluated before proceeding to the financial offers. Often the evaluation is conducted on a pass/no pass basis—that is, only those bidders that pass the technical evaluation proceed to the financial evaluation. The winning bidder is then selected on the basis of the best financial proposal from among those who passed the technical evaluation.

This approach was used in the Buenos Aires water privatization. Four prequalified bidders submitted technical proposals setting out their business plan, including investments, financing, and so on. These plans were then evaluated by the government to assess their adequacy with respect to the service requirements in the concession contract. The committee concluded that three of the four plans were technically responsive; the fourth was deemed nonresponsive, principally because it included an innovative proposal for a sewage treatment plant that was considered by the committee to be nonviable. After the technical evaluation, the three bidders that passed proceeded to the financial proposal stage. The concession was awarded to the bidder with the best financial proposal (in this case the lowest average tariff to consumers).

An alternative is to weight the technical and financial evaluations. This method was used to select the new private concessionaires for the Argentine freight rail privatization. Bidders submitted detailed business plans with technical and financial information. The proposals were evaluated on the basis of the following weighted criteria: proposed investment plan (30 points), promised additional investments (5), organizational plan (25), maintenance plan (8), concession fee to be paid (12), payment required by the passenger trains for trackage rights (5), and number of personnel to be retained from the public company (15).

A process involving a technical evaluation of proposed business plans has important drawbacks, however. It often involves considerable discretion and judgment on the part of the evaluation committee, which reduces the overall transparency and automaticity of the award process. Experience has also shown that changing market conditions after contract award often require operators to make significant (and justifiable) modifications in their business plans and investment programs.

These changes reduce the meaningfulness of the evaluation process to the extent that it relied heavily on the assessment of the proposed business plans.

Given these drawbacks, many governments have opted for a process whereby all bidders bid on the same technical specifications or service requirements, and the evaluation is based solely on financial proposals. To ensure that the technical specifications and service requirements are viable, governments will generally issue a preliminary version to bidders for comment and discussion prior to finalizing project plans. After consultation and receiving bidders' written comments, the government finalizes the bidding package, and all bidders bid on the same technical specifications and requirements.

Although the technical specifications are standardized for all bidders, there may still be a two-stage procedure. In this case the technical proposal may simply involve providing legal documentation to meet standard bidding requirements. Alternatively, it may be used to qualify bidders (if a prequalification process was not used earlier) or reduce the number of prequalified bidders that advance to the financial evaluation. In this case the technical proposal would contain information on the bidder's technical and financial capacity and experience in order to assess these against certain specified thresholds. This procedure is, however, quite different from a two-stage bidding process whereby bidders submit proposed business and investment plans for evaluation.

4.3.2 Financial Proposals

There are many different options for structuring financial proposals (table 4.2). Some of the more common options include bidding on:

- The highest price, in cash or debt retirement, to be paid for the assets or shares of the enterprise being privatized or highest concession fee (one-time or annual) paid to the government.
- The lowest cost to the government for constructing or operating facilities or services.
- The largest amount of new investment to be undertaken by the operator.
- The lowest tariff to be charged to consumers.
- The lowest net present value of the future revenue stream to the developer from the service or project.
- The lowest subsidy that the government must provide to the winning bidder to operate a loss-making service.

In addition, there are other criteria on which projects may be bid, such as the maximum extent of new service coverage promised or the minimum length of the concession period. While not strictly "financial" criteria, these bear directly on the level of investment to be undertaken or on the consumer tariffs required by the developer.

The choice of which method to use will depend on several factors, such as: whether the transaction involves an existing service or a new project, the amount of risk and ownership to

Table 4.2 Examples of Financial Proposals

Infrastructure transaction	Structure of financial proposal
Peru: Lima electricity distribution privatization	Highest dollar value offered for assets
Argentina: Buenos Aires water concession	Maximum discount to existing tariffs
Philippines: power-generation BOTs	Lowest price (cents per kilowatt-hour) of power to be supplied
Chile: south access to Concepcion toll road	Minimum toll and minimum one-time subsidy
Turkey: electricity distribution concession for Istanbul	Minimum margin on distribution required by the operator
Venezuela: cellular concession	Highest concession fee paid to government

Source: World Bank Staff.

be transferred to the private operator, and the government's objectives for the transaction. If the transaction involves privatizing existing assets or shares, a common practice is to have bidders bid the amount of cash (or debt retirement) they would pay the government for the assets or shares being privatized (assuming that the pricing regime is specified in the concession contract).[1] In this case the winner is simply the highest bidder. This method is used by most governments to divest existing enterprises.

Peru, for example, privatized its electricity distribution assets in Lima and received $389 million in cash payments for 60 percent of the shares. However, basing awards on the highest fee can encourage concession designs that limit competition in the sector in order to attract a higher price for the concession. While conferring exclusivity rights on the concessionaire may indeed raise more revenue for the government, it results in higher prices to consumers for infrastructure services.

In some privatizations governments may decide that short-term revenue needs are less important than private investment in the company being privatized. In such cases they may structure the privatization to include the issuance of new shares, rather than (or in addition to) the sale of existing shares. Where new shares are issued, the proceeds will remain with the privatized company (for future investment), whereas proceeds from the sale of existing shares will go to the government. For example, Peru's telecommunications privatization combined the sale of existing shares (with the proceeds going to the government) and the issuance of new shares (with the

proceeds remaining in the privatized company). Similarly, in Bolivia's capitalization program bidders bid on the value of new shares issued by the capitalized enterprises; proceeds remain with the company to finance future investment, while the winning bidder acquires a 50 percent stake in and management control of the company.

Where privatization of infrastructure involves full concession but no sale of assets, governments frequently base the bidding on the highest proposed concession fee to be paid by the concessionaire. This fee may take the form of a one-time upfront payment or an annual payment for the life of the concession. If the fee is to be spread over the life of the concession, the bidding procedures generally specify the discount rate for translating bids from future to present value.

When a government's objective is to increase investment in the privatized company, it may choose to hold the bidding on the basis of new investment commitments. This method of bidding is commonly used when a government is concerned that the market value of a company being privatized is much lower than the book value (reflecting the government's historical investment) and that it will therefore be accused of giving away public assets. In such cases governments will often base the bidding on proposed investment commitments to demonstrate to the public that the new owners will invest in the privatized company.

Bidding on the basis of investment commitments has three important drawbacks. First, by locking in future investment levels, it prevents the operator from adjusting investments and operations to reflect changing market circumstances. Second, it has often proven difficult to enforce these commitments, thereby undermining the basis for the original bidding and contract award. Third, it may encourage excessive, economically unjustifiable investment.

Another bidding option, which is commonly used for either new infrastructure projects or concessioning of an existing service (where assets are not being sold), involves bidding on the basis of the tariff to be charged to consumers. This was the method used for concessioning the water and sanitation services in Buenos Aires and Manila, where concessions were awarded to the bidder proposing the largest discount from the existing tariff structure. This method has also been used for awarding new toll road concessions and power generation plants.

Some innovative bidding schemes have been developed in the past three years for private infrastructure projects that involve considerable market risk. In the case of new toll roads, for example, experience has shown that it is very difficult to forecast traffic flows, thus generating high risk for the operator (or the government in the event that it has provided traffic or revenue guarantees). To address this problem, Chile is now considering bidding on the basis of the net present value of the future revenue stream from the collection of tolls, with the concession awarded to the operator who bids the lowest net present value. Under this bidding method the concession would not be fixed in length. It would terminate when the revenue stream (in net present value terms) reaches the original bid. Thus the concession length would automatically adjust to fluctuations in demand, thereby reducing market risk for the operator and eliminating

the need for traffic or revenue guarantees from the government. This method is somewhat similar to that used in the private construction and operation of the QEII Bridge (Dartford-Thurrock River Crossing) in the United Kingdom, where the concession period is set at a maximum of 20 years or until the company has accumulated revenue equal to the project debt. For more on variable-length concessions, see also section 3.8.4.4.

In summary, there are many ways to structure the financial bid, and the choice can have important effects on the award and operation of the project and, ultimately, on consumers. In designing the financial bid, governments should seek to follow some basic principles, such as:

- Structuring the financial bid as simply and transparently as possible so that the bid award is automatic (that is, avoid complex formulas requiring subjective judgments or qualitative evaluations on the part of the government).
- Structuring the financial bid to promote economic efficiency, in terms of efficient consumption by users and efficient operation and investment by the concessionaire.
- For example, bidding on investment commitments may not promote efficiency if it leads to overinvestment or the uneconomic allocation of resources.

Similarly, bidding on tariff levels will not promote efficiency if the tariff structure is itself distorted or if it precludes improvements in the structure or level of tariffs during concession implementation.

4.3.3 Negotiations

Once the contract has been awarded, several steps typically remain in finalizing the project. There is often a negotiation stage between the winning bidder and the government to clarify some issues that arise as a result of gaps or lack of clarity in the draft contract documents. Additional issues may arise as the winning bidder seeks to negotiate and sign contracts with other project participants in order to bring the project to financial closure.

These postbid procedures can be lengthy and may sometimes lead to changes in contract conditions, which can have important implications for the bidding process. Extensive opportunities for postbid negotiations can cast doubt on the transparency of the process, as bidders may submit overly optimistic proposals to win the bidding if they are confident that they can secure changes in their commitments during subsequent contract negotiations. This concern is especially grave in cases where ex post negotiations result in changes in the very criteria on which the bid itself was awarded. For example, if the winner of the competitive bidding for a concession awarded on the basis of the lowest tariff is able to revise the tariff in subsequent negotiations, the validity and transparency of the bidding process itself is put into question.

While negotiations on matters such as the proposed tariff, concession period, and risk allocation are not uncommon in many concession awards, they are clearly contrary to the spirit of transparent competitive bidding and are barred by many internationally recognized procurement rules and guidelines. For example, Article 31 of the UNITRAL Model Law on Procurement states that "no negotiation shall take place

between the procuring entity and a supplier or contractor with respect to a tender submitted by the supplier or contractor." As much as possible, technical discussions and negotiations should be addressed in the technical proposal stage of the bidding. Postbid negotiation of non-substantial terms of the contract should be limited in order to avoid delay in the procurement process.

Measures aimed at reducing these risks include:

- Requiring detailed, firm evidence at the bidding stage that financial closure can be reached within a specified period. Investors' concerns should be taken into account early on to avoid delaying the process after bidding.
- Preparing draft contracts to minimize the scope for change as a result of postbid negotiations (this requires clarity and consistency in drafting). Bidders should be given the opportunity to comment on draft documents at an early stage.
- Keeping the runner-up in the wings as a fall-back option during postbid negotiations. This option, however, should not be used by governments to try to squeeze a more favorable offer out of the winning bidder with the threat of re-opening the bidding.

4.4 Bidding Rules and Procedures

Apart from the structure of the bid, bidding rules and procedures should also be designed to ensure transparency and economically efficient outcomes. There are a number of important design issues, including:

- Whether to use a reserve price and whether to announce it.
- Whether and when to use sealed bids rather than open bids.
- Whether to have a single round or multiple rounds of bidding.
- Whether to have simultaneous or sequential bidding (in cases where several concessions with interdependent values are being awarded).
- Whether to require bid bonds and activity rules.
- Whether bidders should be remunerated for a portion of their bid costs.

4.4.1 Use of a Reserve Price

An important design issue is whether to use (and announce) a reserve price, whereby bids are rejected if they fall below a specified level (or above a specified tariff if bidding is based on lowest average tariff). While a well-designed competitive bidding process will yield the true market value without the need for a reserve price, governments may still feel that a reserve price is necessary as a safeguard against collusion (and hence, below-market bids) and also for public credibility.

The concept of a reserve price is often misunderstood by the public. Frequently, when the actual bid far exceeds the announced base price, there is criticism that the reserve price was set too low. But the reserve price should not be the government's best estimate of the market value (that is, the government should not be trying to guess the winning bid). Rather, it should be set at the minimal justifiable level in order to spur as many bids as possible—and hence a market outcome. Experience demonstrates that the more bidders there are, the

higher the sales price and the more advantageous the outcome is likely to be for the government.

Announcing a reserve price tends to enhance both the transparency of the process and the information available to all bidders. But, in deciding whether to announce the reserve price, governments should also assess whether there is likely be only a single bidder for the project; if so, it may be preferable to keep the reserve price confidential.

4.4.2 Sealed Versus Open Bids

Another important design issue is whether to have sealed or open (voice auction) financial bids. Most governments use a sealed bid procedure, whereby bidders present single sealed bids that are opened in a public forum. Often, there is a significant spread between bids, which has led governments to conclude that sealed bids will produce the best results in terms of highest revenue or lowest tariff.[2]

Many game theorists, on the other hand, argue that open auctions—whereby bids escalate until all but the winner have dropped out—induce more aggressive bidding and yield higher prices under most circumstances (see McMillan 1992: 133-49, 1994: 145-62). While open auctions are fairly rare in infrastructure concessions, they have been used in the award of radio spectrum for mobile telephony in the United States. Proponents of auctions argue that, under sealed bids, bidders have less information on other bidders' estimates of project value. Thus there is greater likelihood under sealed bidding that the "winner's curse" will occur—that the winning bidder is the unfortunate one who, out of ignorance, overestimates the value of what is being auctioned. In order to avoid paying too much, experienced bidders will adjust their actual sealed bids downward to compensate in advance for the winner's curse. As a result of this compensation, sealed bids may actually yield a lower price than a voice auction (assuming bidders are experienced).

Despite these arguments, there may be good reasons to opt for a sealed-bid procedure. First, collusion between bidders is generally considered to be less likely with sealed bids than voice auctions; under a sealed-bid procedure, bidders' defections from collusive agreements (that is, the submission of bids above the colluded price) are harder for others to prevent than under voice auctions. Second, if bidders are inexperienced, they may be less likely to correct for the winner's curse under a sealed-bid with the result that the sealed-only bid procedure may actually yield a higher price under these circumstances.

In summary, the issue of whether to have sealed or open bidding is an important design consideration that could significantly affect the behavior of bidders and, hence, the bidding outcome. In deciding which method to use, governments should assess such factors as the expected number of bidders, the possibility of collusion among bidders, and bidders' experience with similar projects.

4.4.3 Simultaneous, Sequential, and Multiple-Round Bidding

If a series of similar concessions is being auctioned (for example, rail lines and electricity distribution franchises), governments must decide whether to auction these

simultaneously or sequentially. If the government is placing restrictions on the degree of concentration (such as preventing an operator from winning more than one concession), the bidding rules must specify how the winner will be determined in a simultaneous auction should the same company have the highest bid for more than one concession.

For example, in privatizing electricity distribution in Lima, the Peruvian government split the service area into two separate concessions to facilitate benchmark regulation.[3] The two concessions were roughly equal in size and customer base. They were awarded simultaneously in a single-round sealed bid procedure. Prequalified firms were allowed to submit separate bids for each concession, with the restriction that the same firm could not be awarded both concessions. The bidding rules specified that if the same firm had made the highest bids for both concessions, the government would select the winners on the basis of the bid combination that provided it with the highest revenue.

Mexico, in concessioning its rail lines, considered whether to have simultaneous or sequential bidding for the three main lines. The government stipulated that no firm could be awarded more than one concession in order to ensure competition among rail lines. In this case the government opted for sequential single-round bidding (commencing with the Northeast line), rather than simultaneous bidding of all three concessions. The rationale was that the concessions were not of equal market value and, hence, it would be better to bid the most attractive first in order to reduce bidders' uncertainty.

It is also possible to run simultaneous auctions over multiple rounds. This bidding process was used for the auctioning of radio spectrum licenses by the U.S. Federal Communications Commission (FCC) and has since been replicated by Mexico in its spectrum auctions. In the FCC auctions bidders submitted computerized bids for spectrum licenses being offered in any number of markets. Their bids were then posted for all bidders to see, and rebidding took place over several rounds. Bidding continued until no new bids were received (though the FCC had the discretion to keep the bidding open or to close it after a specified number of rounds).

A simultaneous multiple-round auction allows bidders to continuously reassess their strategy and preferences in light of their competitors' bids. For example, a firm can assess how it is doing with respect to its competitors in several markets at once (for example, Chicago versus New York) and adjust its bidding strategy for the subsequent round. Simultaneous multiple-round auctions may be particularly useful when awarding several similar concessions with interdependent values.

In its spectrum auctions the FCC employed activity rules and penalties to ensure that the auctions closed within a reasonable period of time and that bids were serious. In each round the FCC established minimum bids (or bid increments from the previous round) . To discourage bidders from waiting until the end of the auction to participate, the FCC imposed activity rules specifying the frequency of bids required to maintain eligibility. Bidders were granted five activity waivers that could be used during the course of the auction. They were also required to pay upfront fees related to the size of the markets they wished to bid on. Penalties were imposed for defaulting on payments after the bidding concluded.

The choice of bidding mechanism and the design of bidding rules are crucial. Governments should assess carefully the circumstances—the cost of bidding and expected strategic behavior of bidders—before deciding on the mechanism. It may be, for example, that in smaller transactions the cost to bidders and the government of a multiple-round auction will outweigh the expected benefits.

4.4.4 Bid Bonds

Governments frequently use bid bonds to ensure that bids are serious and remain valid until contract award and signature. Bid bonds can be significant for large privatizations or concessions. For example, the bid bond was $10 million for Lima's electricity distribution concession, a transaction valued at roughly $200 million. [4] In Manila's recent water and sanitation concession, the bid bond was $5 million. Not all governments, however, require bid bonds. The U.K. Private Finance Initiative discourages the use of bid bonds, arguing that "bid bonds are expensive and should not be sought other than in exceptional circumstances."

4.4.5 Cost Sharing

Preparing bids and proposals for infrastructure concessions can be costly for developers and operators. The transaction costs of preparing bids may easily amount to 5 to 10 percent of the project's total costs. Investors may thus be reluctant to prepare and submit proposals if the costs of doing so are high and their chances of winning are slim. This may be particularly true for entrants that are less established. Prequalification and shortlisting of potential bidders may encourage firms to participate by limiting the number of bidders and, hence, increasing the chances of winning. But these will not lower the costs of preparing a bid.

Some governments have adopted cost-sharing mechanisms to defray bidders' costs in preparing and submitting bids. The U.K. Private Finance Initiative may offer such arrangements in projects where high bidding costs might otherwise limit the number of potential bidders. The decision to do this is left to the authorities carrying out the bidding and award process.[5] Reimbursement of all or part of the bidding costs may be considered particularly if a project is withdrawn after an invitation to negotiate has already been issued.

Notes

1. While the assets are sold, the operator is generally granted a concession to provide a specified service for a fixed period of time.
2. For example, the spread between the winning and second bids in Peru's telecom privatization exceeded $1.1 billion ($2.0 billion versus $850 million).
3. Each concession would exclusively serve one-half of Lima. In setting retail prices, the regulator would be able to compare the performance of the two operators.
4. The Lima electricity distribution concession was split into two concessions. The bid bond was $10 million for each concession. The winning bids were $212 million and $176 million.
5. For example, bidding costs were refunded in the competition for the Channel Tunnel Rail Link.