Concessions, their fiscal impact

David Duarte Arancibia
Budget Office – Ministry of the Treasury
[dduarte@dipres.gov.cl](mailto:dduarte@dipres.gov.cl)
April, 2009
Outline

• Concession system
• The system’s financial guarantees
• The system’s fixed commitments
• Fiscal planning
• Financial management of the system
• Recommendations
Concession system

Objectives

- Reduce the infrastructure deficit
- Eliminate bottlenecks for economic growth
- Maintain discipline in fiscal expenditure
- Avoid increasing the public debt
- Improve efficiency: investment/maintenance trend
- Financing of users
Concession system

Origin

Solution

• Encourage private participation in provision of infrastructure, Public-Private Partnership (PPP or concessions)

Concession: *Private firm (Designs), Finances, Constructs, Operates, Exploits for a given number of years and delivers an infrastructure work to the government*
Concession system

Actors involved

- Concession Coordination Office, Ministry of Public Works
- Comptroller’s Office
- Social evaluation, Planning Ministry
- Fiscal impacts
- Budget Office, Ministry of the Treasury

Concessions, their fiscal impact
Concession system

Keys

• Flexible legal framework
• Open to competition
• Private initiatives
• Possibility to terminate the concession
• Dispute resolution system
• Financial guarantees
• Compatible financial legislation
Outline

- Concession system
- The system’s financial guarantees
- The system’s fixed commitments
- Fiscal planning
- Financial management of the system
- Recommendations
Financial guarantees granted by the State

• Guaranteed minimum income (revenue sharing)
• Exchange coverage mechanism
• Variable term mechanisms
• Other specific guarantees in some contracts (El Melón tunnel, Chiloé bridge)
Financial guarantees

Guaranteed minimum income

Income [UF]

Ceiling on income

Expected income

Guaranteed minimum income

Concessions, their fiscal impact
Financial guarantees

Guaranteed minimum income

The government pays the concessionaire the difference between actual income and the GMI.

The concessionaire must share income with the government.

Actual performance of income

The government pays the concessionaire the difference between actual income and the GMI.
Financial guarantees

Guaranteed minimum income

• If activated, the concessionaire can pay the financing (objective function in the plan)
• If activated, the project is unprofitable as a private venture
• A premium is charged for access to the mechanism
• Market test of project feasibility
• Lower financing costs
• Disincentive for government to build substitutes
Financial guarantees
Exchange coverage mechanism

• Chile’s financial market was leaner in the 1990s
• Less knowledge about the concessions industry
• Less knowledge about how the industry’s financial rules work
• Some concessionaires could get better financing terms abroad
Financial guarantees
Exchange coverage mechanism

TC = Exchange rate
US$/UF

Disbursements
Financing (short term)
Refinancing (long term)
Time

Debt service
Concessions, their fiscal impact
Financial guarantees
Exchange coverage mechanism

The government pays the concessionaire when the currency depreciates more than 10%.

The concessionaire pays the government when the currency appreciates more than 10%.

The concessionaire may abandon the mechanism if it thinks the appreciation is permanent.

TC = Exchange rate
US$/UF

Time

Debt service
Concessions, their fiscal impact
Financial guarantees
Exchange coverage mechanism

Evolution of exchange rate 1999-2009

Signing of mechanism
Beneficial for concessionaires
Currency appreciates strongly with permanent expectations, Mechanism abandoned

Concessions, their fiscal impact
Financial guarantees
Exchange control mechanism

• At present all concessionaries have abandoned the mechanism

• The domestic financial market, eager for long-term UF bonds, and government financial guarantees, have enabled them to get excellent placement rates

• Currently can generate private coverage
Financial guarantees

Variable term mechanisms

Income expected from concession

Estimated concession duration

Income expected from concession

Time

Concessions, their fiscal impact
Financial guarantees

Variable term mechanisms

Concessions, their fiscal impact
Financial guarantees

Variable term mechanisms

- Income expected from concession
- Estimated concession duration
- Actual duration of concession

Concessions, their fiscal impact
Financial guarantees
Lower Present Value of Income (LPVI)

- Sets total income of concession in tender process
- Mitigates demand risk
- Reduced likelihood of bankruptcy
- Better quality offerings
- Encourages fairer negotiations
- Does not guarantee profitability
Financial guarantees

Income Distribution Mechanism (IDM)

• Mechanism offered to concessionaires in operation in 2001
• Some concessions needed additional works
• Income had been less than expected
• Concessionaires had negative expectations
• The government thought flows would increase regardless of the macroeconomic cycles
Financial guarantees
Income Distribution Mechanism (IDM)

• Changing expectations opens room for negotiation
• Concessionaires chose the income growth rate
• In return they had to pay the government a percentage of the current value of the income
• The contract was changed from fixed-term to variable
• The concessionaires cannot get out of the IDM
Financial Guarantees

During planning

• Each guarantee is for a specific purpose and cannot be used to artificially increase a project’s profitability

• During the bidding there is pressure for increasing the values (all interested parties in bidding for the project)

• There is asymmetry of information, because the plan is made presupposing a financial structure known only to the concessionaire
Financial Guarantees

From the fiscal viewpoint

• The guarantees affect the economic cycle (pro-cyclical) so must be controlled

• Impact on country risk

• Hard to estimate because of their contingent nature

• Not reflected in fiscal budget
Financial Guarantees

As regards control:

- Models developed with World Bank permit estimation of probability of payment

- Permits estimation of current value and reporting it in the Contingent Liabilities Report of the Budget Office

- Also permits calculating and charging that amount for access to them so private parties assess the real need
Outline

• Concession system
• The system’s financial guarantees
• The system’s fixed commitments
• Fiscal planning
• Financial management of the system
• Recommendations
The system’s fixed commitments

Sources

- Subsidies
- Payments for assets and rights
- Supplementary agreements
- Other payments (control, management, studies, etc.)
- Government-concessionaire disputes
The system’s fixed commitments

Subsidies

• Government payments to concessionaire in addition to tariff income

• Occur when tariff income is insufficient to make private investment profitable and attractive (there is a tariff cap)

• Projects with no income: jails
The system’s fixed commitments

Payments for assets and rights

• In some cases, income from tariff makes private investment very profitable

• There is a reasonable minimum tariff

• That tariff allows the concessionaire to make payments to the government

• During bidding, the excess-profitability diminishes with higher payments to the government
The system’s fixed commitments

The Route 5 case

• 1520 Km, Concessions granted for 8 sections
• Trunk route that connects the country
• Decision: Fixed tariff
• In some sections it was necessary to have subsidies and in others, payments to the government
• Plan for crossed subsidies
The system’s fixed commitments
Supplementary agreements

• The contracts do NOT cover all possible future situations of the type

• Long-term contracts

• Uncertain variables: (Flows, demography, economic growth, macroeconomic variables, policies)
The system’s fixed commitments

Supplementary agreements

Grounds for changes:
• Expansion needs
• Aspects not covered by the contract
• Incomplete studies
• Solution of government-concessionaire disputes
• Regulatory changes
• Increased standards
• Social needs
• Political decisions
• Lack of moderation, haste to grant concession
• Opportunities
Logic of the Negotiation:

“Reestablish the financial balance of the contract”

• This can be accomplished by providing for:
  – Payments to the government (1 or more)
  – Raising the tariff
  – Extending the duration
The system’s fixed commitments

Supplementary agreements

Payments to the government

• Requires availability of resources

• Payment in more than a single installment entails additional financial cost

• It is possible to take advantage of favorable financial conditions to use it

• Reduces the opportunity for new projects or investments
Raising the tariffs

- No government resources required
- High political cost
- Complex negotiation of elasticity
- In some cases agreements for investments must be made with concessionaires unwilling to carry them out if compensated by this means
The system’s fixed commitments

Supplementary agreements

Extending duration

• No government resources needed
• Postpones a current problem
• Usually has a high financial cost (more distant flows over time are more uncertain)
• Postpones the rebidding or expansion of the work
The system’s fixed commitments
Supplementary agreements

Characteristics

• Any alteration may have a financial impact on the contract

• They must be authorized by the Ministry of the Treasury

• Lengthy negotiations, so there must be a rapid-reaction mechanism
The system’s fixed commitments
Supplementary agreements

Problems

• The concessionaires capture the government (urgent projects, projects already begun, etc.)

• At times the contract is modified to solve a problem that is a government responsibility, so negotiations are hasty and the results are less than desirable

• Assymetry of information on real costs (works and financing)
The system’s fixed commitments
Supplementary agreements

Problems

• The amount of compensation is the product of bilateral negotiations (no competition)
• Hard to predict—“Fiscal surprises”
• Cost overruns average 30%
• In some cases they are as high as 100%
Fiscal flows in stylized profile-types

The system’s fixed commitments
Supplementary agreements
The system’s fixed commitments
Supplementary agreements

Measures

• High quality of engineering - studies
• Proper specification of contracts
• Efficient risk allocation
• Proper system selection (BOT, DBOT, Service Level)
• Feedback
• Budgetary provisions

Concessions, their fiscal impact
Outline

• Concession system
• The system’s financial guarantees
• The system’s fixed commitments
• Fiscal planning
• Financial management of the system
• Recommendations
Fiscal planning

Budgetary balance

• Starting in 2001 the central government considers structural income in preparation of the annual budget
• It is a balance adjusted by the effect of the economic activity cycle and the price of copper
• Formalized in the 2006 Fiscal Responsibility Law
Fiscal planning
Fiscal balance % of GDP

Concessions, their fiscal impact
Fiscal planning

• Proper evaluation of the fiscal position requires consideration of future commitments

• In addition to annual flows, it is necessary to consider the stocks (debts)

• All fiscal obligations must be included, whether fixed or contingent
Outline

• Concession system
• The system’s financial guarantees
• The system’s fixed commitments
• Fiscal planning
• Financial management of the system
• Recommendations
Financial management of the system

Requirements

• Sustainable in the long term
• Compatible with fiscal planning (Structural balance rule)
• Balance between concessions and provider indebtedness
• Monitoring by international organizations
Financial management of the system

Management measures

• Disseminate information
• Rule of maximum fiscal commitment
• Management of contingent liabilities
• Management of project portfolio
• Permanent involvement of the Ministry of the Treasury in the projects and programs
Financial management of the system

Disseminate information

• Publication of fixed commitments
• Calculation and publication of contingent liabilities
• Report on contingent liabilities published by the Budget Office
Financial management
Fiscal flow for guarantees

Percentiles 5 y 95 y Media de la Distribución de Probabilidad
Estimada de los Flujos Anuales 2009-2028,
Millons of $ 2008

Concessions, their fiscal impact
Financial management

Expected present value of guarantees

Evolution of the estimated net contingent liabilities of the concessions system associated with the GMI
Millions of pesos each year and as a % of GDP each year

Concessions, their fiscal impact
Financial management
Control of contingent liabilities

• The total stock of guarantees is 3.72% of GDP
• The current value of expected payments is 0.14% of GDP
• If Chile’s GDP is half of the trend, the current expected value is 0.3%
• The probability that the expected value exceeds 0.5% of GDP is less than 1%
## Financial management

### Control of contingent liabilities

<table>
<thead>
<tr>
<th>Contingent liabilities</th>
<th>Present value 2007</th>
<th>Present value 2008</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension system guarantee</td>
<td>1.75%</td>
<td>1.79%</td>
<td>Estimated</td>
</tr>
<tr>
<td>Concession system guaranteed minimum income</td>
<td>0.21%</td>
<td>0.14%</td>
<td>Estimated</td>
</tr>
<tr>
<td>Guarantee of debt of public corporations</td>
<td>1.21%</td>
<td>1.27%</td>
<td>Maximum exposure</td>
</tr>
<tr>
<td>Higher education loan guarantee</td>
<td>0.08%</td>
<td>0.18%</td>
<td>Maximum exposure</td>
</tr>
<tr>
<td>Lawsuits against the government /2</td>
<td>0.01%</td>
<td>0.01%</td>
<td>Estimated</td>
</tr>
<tr>
<td>Concession system disputes</td>
<td>0.23%</td>
<td>0.08%</td>
<td>Maximum exposure</td>
</tr>
<tr>
<td>Governmental guarantee of deposits</td>
<td>3.48%</td>
<td>1.40%</td>
<td>Maximum exposure</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6.96%</strong></td>
<td><strong>4.86%</strong></td>
<td></td>
</tr>
</tbody>
</table>

/1 Estimated GDP for 2007 and 2008 as applicable

/2 Annual value
Financial management

Fixed commitments

Rule of Maximum Fiscal Commitment

• Current commitments of the concession system
• Resources to be committed for projects
• Allowance for resources for future agreements regarding this projects, including contingencies
• Pending supplementary agreements
• Commitments associated with new projects identified but not yet opened for bid
Rule of Maximum Fiscal Commitment

• Provision of resources for future agreements and expenses associated with those projects
• Determine budgetary availabilities considering the abovementioned total expense framework
• Finally, budgetary availabilities are combined with current and future commitments to establish the profile of resources that could be committed to concession projects
Financial management

Fixed commitments

Commitments of the concession system as a percentage of the budget of the Ministry of Public Works (1) Flows 2009-2030
Outline

• Concession system
• The system’s financial guarantees
• The system’s fixed commitments
• Fiscal planning
• Financial management of the system
• Recommendations
Recommendations

• Monitor macroeconomic risks generated
• Make sound macroeconomic decisions
• Criteria of economic efficiency
• Consider the long and medium term
• Consider estimated flows, not expected flows
• Consider all costs involved
Recommendations

- Projects should be socially profitable
- Disclose all information: contracts, agreements, commitments, etc.
- Compare concession costs versus public financing
- Assess risk transfer
Recommendations

• Good base studies
• Realistic times
• Specialized advisory services
• Check & balance – institutional counterweights
Concessions, their fiscal impact

David Duarte Arancibia
Budget Office – Ministry of the Treasury
dduarte@dipres.gov.cl
April, 2009