Natural resource taxation and subnational tax handles—an international perspective

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1.1. Natural resources: a "peculiar " tax base

- Federalization and decentralization make subnational governments demands more vocal;

- demands are strengthened by frequent devastation of the environment through unregulated and excessive use.

1.2. Political difficulties from geografic and economic vagaries of the rents

- Huge geographic concentration of production/tax base;
- sparsely populated regions may exercise small weight in national politics;
- “boomtowns” phenomenon, sudden growth of population and sudden disappearance;
- large, but unpredictable, fluctuations of price.

2. Alternatives: taxation versus ownership

- Actual appropriation of the rent depends not only from ownership, but also - and more importantly - from use of other policy instruments, such as taxation;
- constitutions are either silent on ownership - as in Pakistan - or not clear;
- recent constitutions assign ownership "to the people";
- but, even when their provisions are explicit and clearly stated, they can't resolve the issue.

Ownership versus taxation

Ownership defines :

- the entitlement to receive rent;
- the competence to manage, control and monitoring the use of the resources:
- essentially through granting of concessions to exploting/exploiting firms.

Taxation powers allow governments without ownership to extract part of, or all the rent through taxes :

- directly related to the rents;
- not directly related to natural resources, ex. corporate income tax.

Taxation powers versus ownership: the example of Argentina

- The 1994 constitution - article 124- stipulates that *the provinces have the original dominion over the natural resources existing in their territory.*

- According to it Provinces are presently negotiating and signing contracts with firms.

- However, the federal government retains the power to regulate the sector.

- It has also regulates domestic markets and internal prices.

- It has the exclusive power on import and export taxes and has secured access to company profit taxation (although it does not use it specifically for extracting rent from oil and gas).

The example of Argentina

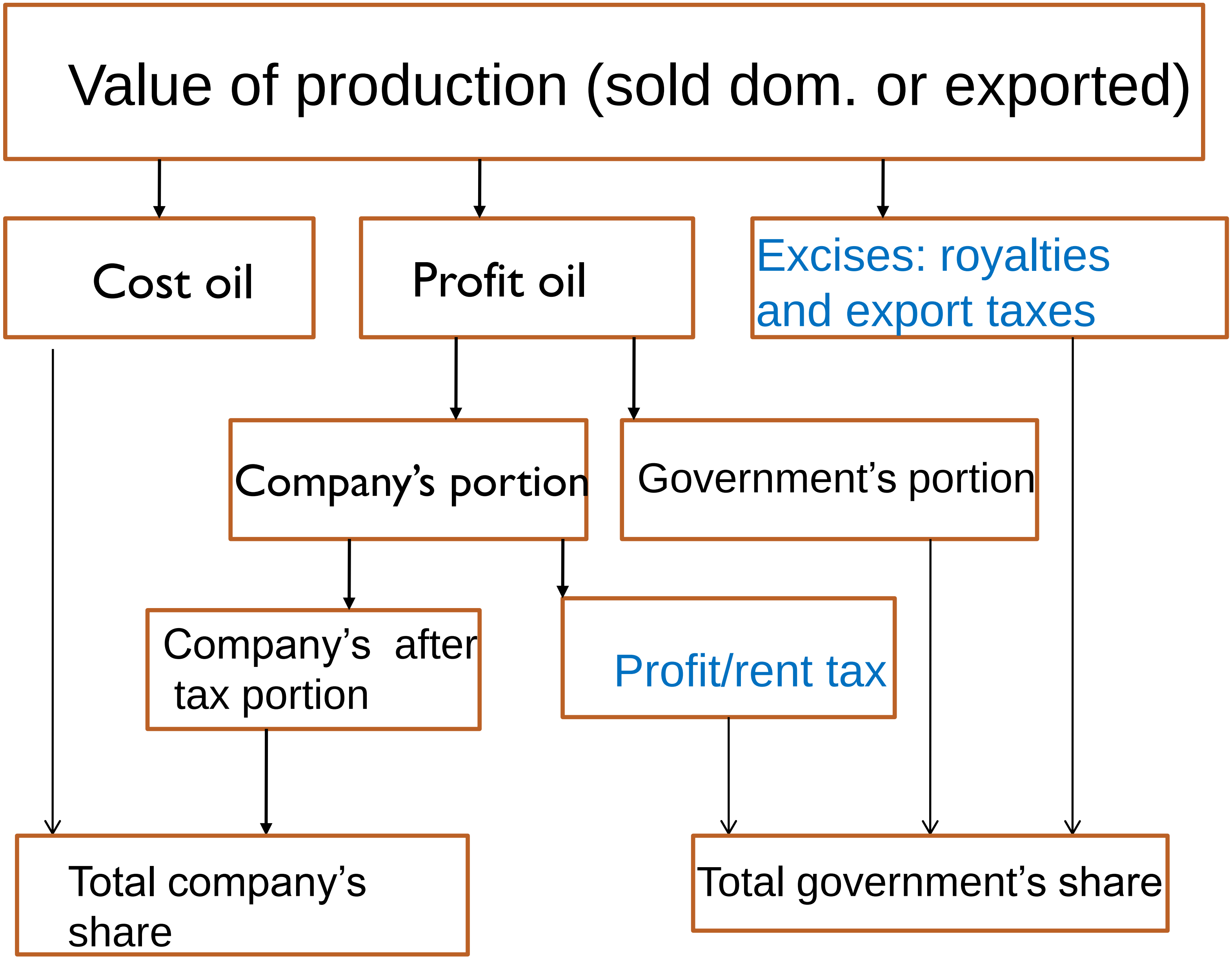
- The provinces levy the royalties (12,5% on well head price, recently raised to 15 % by some of them),
- The federal government levies the company income tax (that goes to the pool of tax collections shared with the Provinces).
- It levies also an export tax with tax rates increasing with the price.
- The export tax has impacted negatively on exports and production, Provinces complain, but
- benefits consumers by inserting a ceiling on the domestic price of oil and gas (equal to the difference between the international price and the export tax).

Taxation in a comprehensive framework

Production sharing agreements are the most frequently used instrument to govern relationships between producing companies and government.

They are referred to here to show the main loci of taxation.

Production sharing agreements: structure



Tax instruments (upstream)

1. Excises: taxes on production (royalties) or on the exported part of production.

2. Taxes on rent/profits;

   2.1. corporate income taxes /with higher than normal, or progressive tax rates;

   2.2. resource rent taxes—capture a larger share of the most profitable projects.

Royalties

- Ensure relatively constant revenue stream; and regular minimum payment;
- assessed on volume, or value, of oil and gas;
- often considered a disincentive to investment and source of distortions;
- relatively simple to administer, hence suited to subnational governments.

Corporate income tax

Issues peculiar to oil sector

- Sometimes profits from oil are taxed at a higher rate;
- tax incentives: immediate recovery of exploration costs, accelerated depreciation, investment credits, and tax holidays;
- problems can originate from transfer pricing, "earning stripping" and inflated expenditure deductions. Little permanent revenue.
- difficult to administer; hence suited to central government, or large and experienced subnational governments (ex. Alberta, Alaska).
- Have disappointing performances in many countries.

Resource rent tax

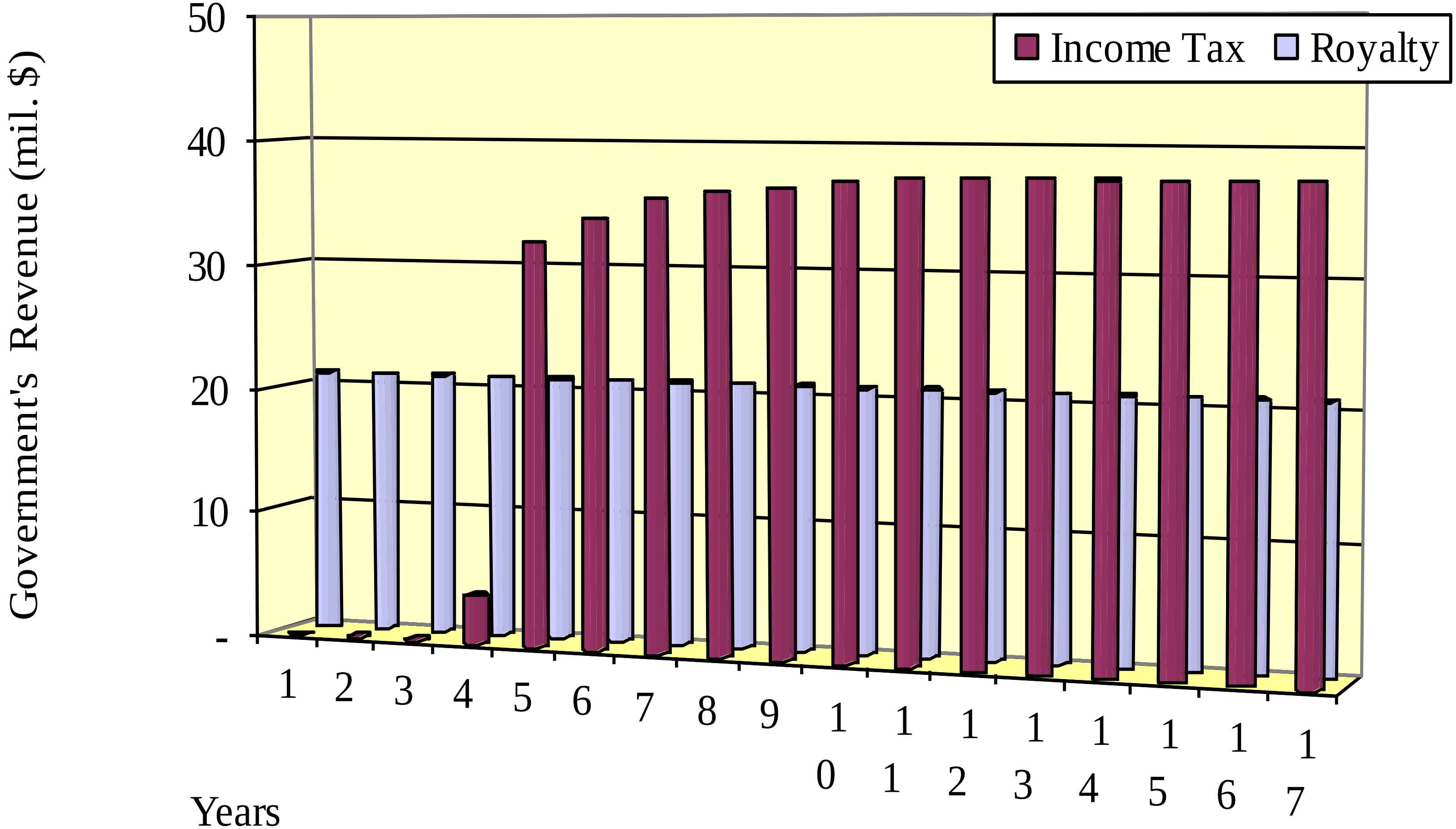
- Rate of return based—the tax is assessed when accumulated real cash flow turns positive;

- Rate of Return (RoR): investor's opportunity cost of capital; country-specific mark-up on risk-free asset;

- Problems: setting RoR and tax rate.

- A very few industrial countries use it: UK, Australia, Norway

Timing of Revenue under Alternative Fiscal Regimes



Interrelations between the various taxes

- Excises and income/rent taxes are in competition: more room for the former brings less room for the latter.

- Excises increase cost and decrease difference between value of production and costs (base of the income and rent taxes).

- Relevant for intergovernmental relations: explicit assignment of rent to one government may be nullified by the assignment of different fiscal instruments to another government.

Instruments for sharing rent among levels of government

1. Separation of taxes;

2. Concurrence of taxes;

3. Revenue sharing;

4. Intergovernmental transfers.

Separation of taxes

- Distinct tax bases for distinct governments:
- royalties → subnational governments
- income tax → central government, or vice versa.
- Example: on-shore royalties in Brazil (go to States and Municipalities only).

- Is transparent.
- Does not solve, however, competition between levels of government for the rent.

Concurrence of taxes

- More levels of government share same tax base.
- Widely used system:

- Canada : federal and provincial corporate income tax.
- Argentina: Provincial royalties + federal export tax
- Bolivia: Provincial royalties + central royalty (IDH).

- May lead to excessive taxation.
- Does not exploit comparative advantage in tax administration.

Revenue sharing

- The tax bases, the tax rates and the revenue shares are determined nationally and the revenue is allocated to the Federal Gov. and to Provinces, according to the origin principle.

- Corresponds to the previous system (concurrent taxation), but with centralized decision-making and administration.

Intergovernmental transfers

Amount to the previous system, but sharing is done according to indicators not related to the place of production.

Typical of countries, where rents from natural resources are centralized.

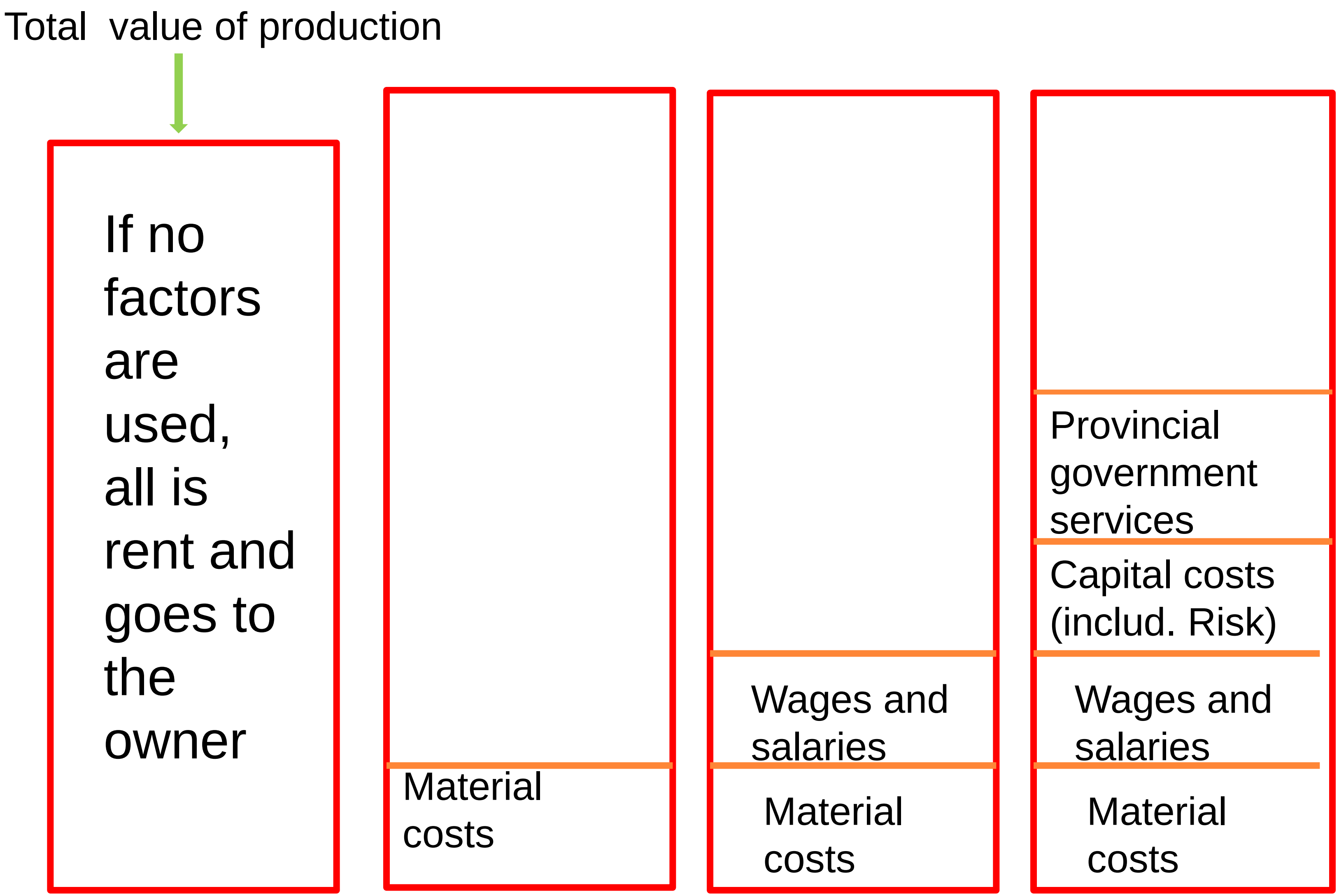
For example, Mexico.

Back to the issue of sharing

All systems require a national decision about the respective shares of various levels of government.

To provide suggestions, let's go back to the production sharing arrangement and expand its logics using the traditional economic theory of factor remunerations.

Theory of factor prices



Theory of factor prices

Column 1

- Federal govern services
- Provincial governments services
- Capital costs (includ. Risk)
- Wages and salaries
- Material costs

Column 2

- Use of environment
- Federal govern services
- Provincial govern services
- Capital costs (includ. Risk)
- Wages and salaries
- Material costs

Column 3

- RENT
- Use of environment
- Federal Govern services
- Provincial government services
- Capital costs (includ. Risk)
- Wages and salaries
- Material costs

-Central Govern (Stab Fund)
-Provincial Govern.ts
-Future generations Pension Fund
-Consumers

Combinations between the assignment of environmental responsibility and the assignment of the environmental rent

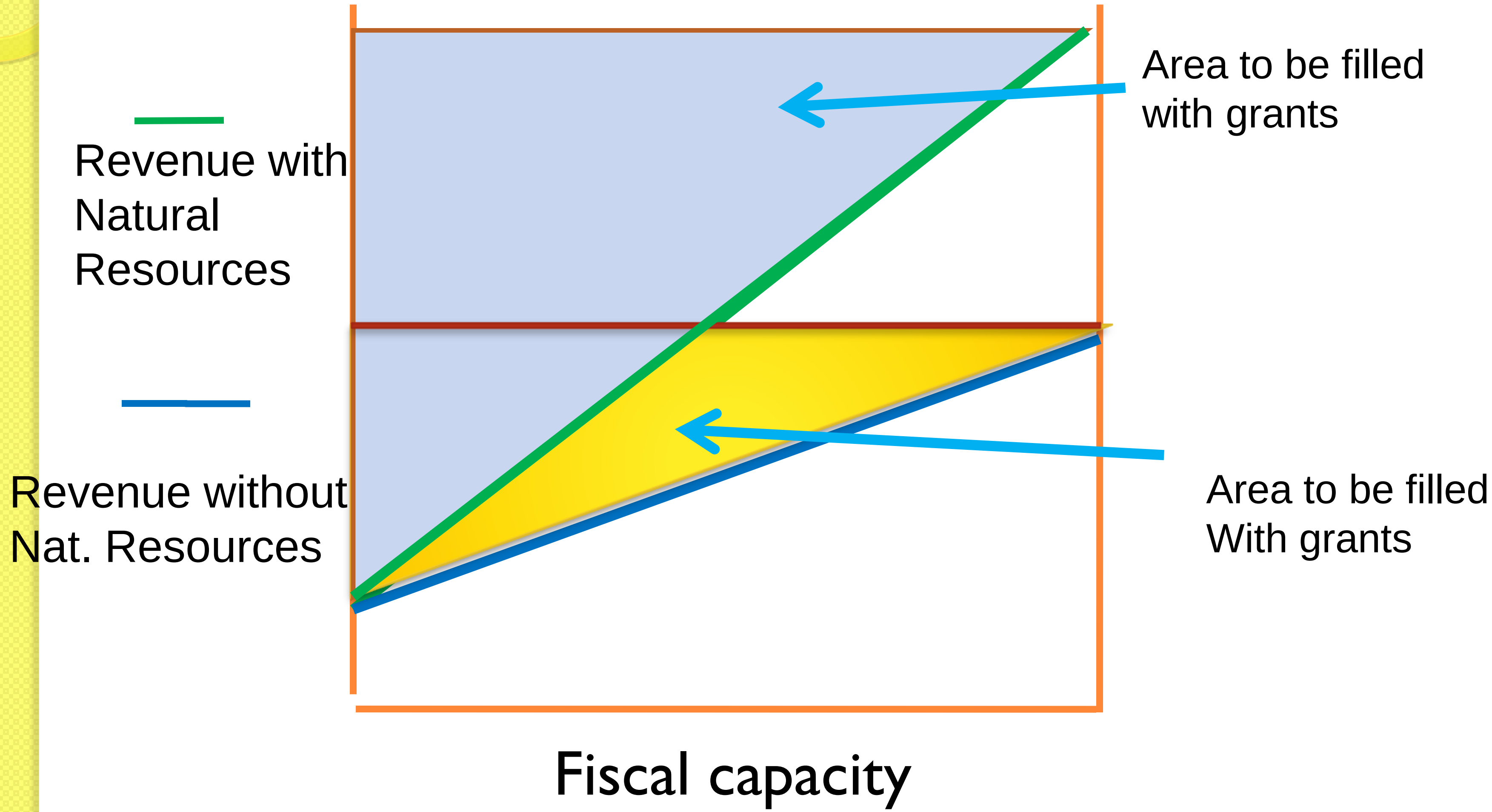
	Responsibility for defining and enforcing the standards	
Assignment of the rent	Central Central	Local Central
	Central Local	Local Local

Local taxation and equalization

Local taxation of natural resources engenders inequalities requiring equalization transfers.

- Distinct equalization system for natural (example Colombia): pool to be allocated derives only from rents.
- General equalization system: pool derives from all central government revenue (Canada).

Equalization systems



Equalization systems

Distinct equalization systems:

- have less equalizing potential
- are closed-ended
- hence, more macro economically sound.

General equalization systems:

- have exactly opposite characteristics
- may have problems with huge impact of natural resources.
- Example Canada :50% of provincial oil revenues are included in fiscal capacity.

Conclusions on rents

- International experience is extremely diversified, particularly in federations.
- Rents are, and can be, shared between levels.
- The amount to beneficiary governments has to be linked to effectively provided services.
- To avoid duplication and voids, a national agreement is needed (Constitutions are not enough).
- Obviously, non rent sources of subnational taxation are crucial also in oil rich states.

A short look on subnational taxes

- Countries with lower degree of decentralisation , such as unitary states, may rely mostly on property tax and fees. Insufficient use in developing countries.

- When the degree of decentralisation increases still within unitary states (such as in Scandinavia) reliance on broad-based taxes is needed.

- Countries with an intermediate level of Government – particularly the federal countries – need broad-based taxes more acutely.

Taxes for the intermediate level: State, Provinces, Regions

- Local surcharges on the PIT are widely used in classical and developed federations (Canada, Switzerland, USA) and

- have become increasingly popular in regional systems (Italy, Spain, UK(Scotland).

- Local surcharges on CIT are also widely used in classical federations, but can create problems.

- Countries are increasingly looking at VAT, directly, or indirectly.

Conclusion

- Other tax handles are crucial.
- Wide choice of tax instruments.
- Choice of taxes has to be considered within the general framework of a national agreement on the sharing of rent from natural resources.
- When subnational policy assignments are wide, broad-based taxes have to be assigned.