Tax and Innovation Theory

Do We Really Want to Be Average?

Hans Henrik Ramm
Ramm Kommunikasjon
NPF Petroleum Tax conference
11 November 2003

Feudal Theory:

1. How much money do you have?
2. Where is it?
3. When can we take it?

Socialist Theory:

1. How much money do we need?
2. Who’s got more money than others?
3. How can we get it?

Neoclassic Theory:

- Taxation should be neutral
- Tax wedges should be minimized
- Non-mobile tax objects safer
- High tax rates for clean profits
- Externalities and market failures may be corrected

Capital Value Theory:

- Firms are profit-maximizing
- Capital moves to the highest profit levels
- Profits are competed down to "normal" at same risk
- Lasting profits above "normal" are clean profits

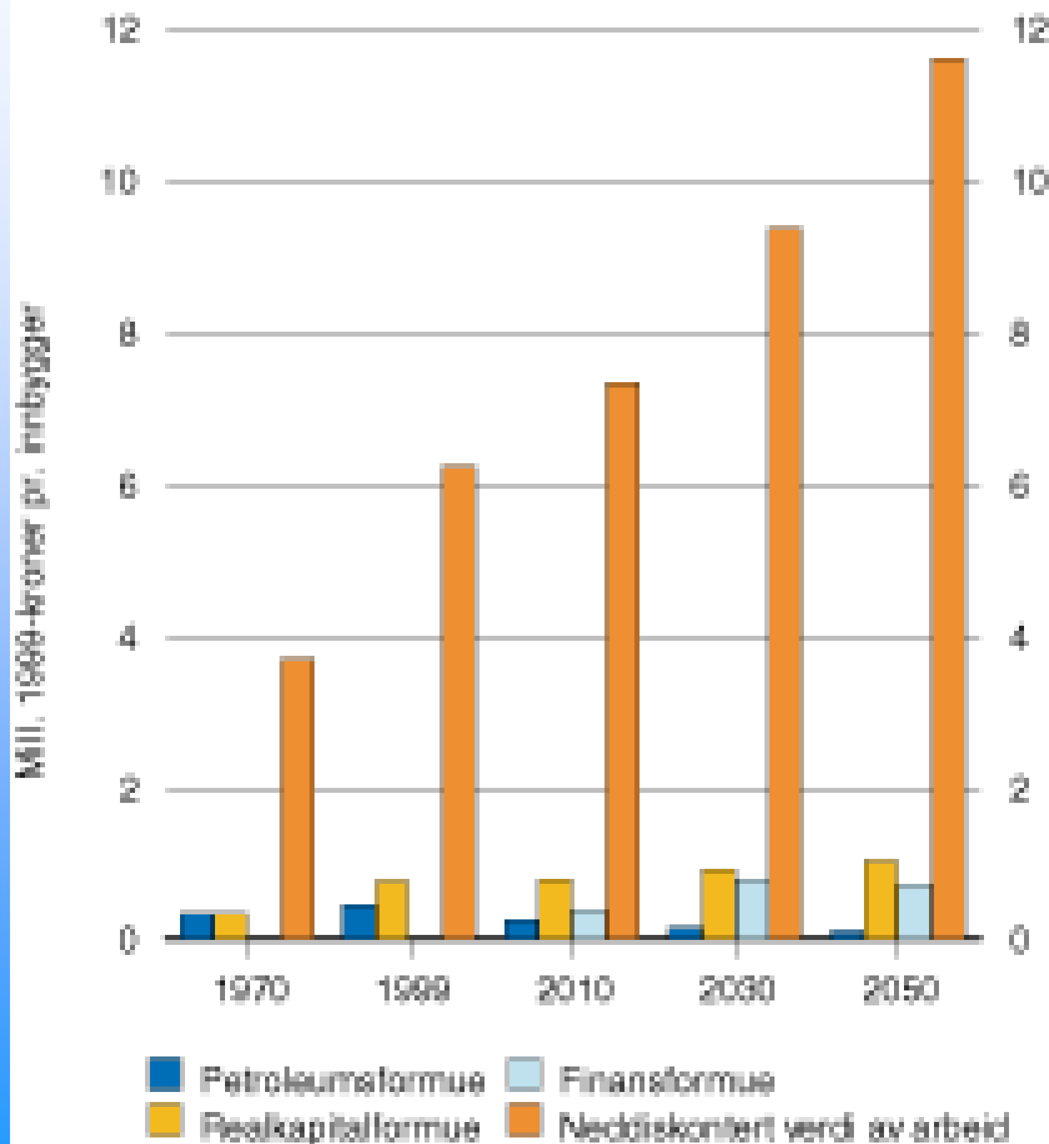
Asssumptions:

- All costs and incomes can be identified
- Factors uniform and exchangeable
- Knowledge and innovation are exogenous
- Human capital is recognized
- Labour takes all human capital rent

Innovation theory:

- Knowledge/innovation also endogenous
- Firm’s endogenous knowledge of increasing importance
- Cluster theory
- Firms, clusters, nations can maintain higher profits
- Knowledge capital a production factor
- Knowledge spillover to society

Norway's national capital (long term program 2001-2005):



Caveat from source:

"Discounted value of labour" is actually the residual (Solow) when asset capital, finance capital and resource capital have been deducted.

"The method implies that the capital value of labour also may contain other elements."

"Other elements" must be other kinds of knowledge capital, including endogenous innovation capability in companies

All industries share in asset, finance, human and knowledge capital.

The complete balance sheet:

Assets	Liabilities
Tangible and resource assets	Equity financial capital
Cash and financial holdings	Debts
Human capital	NPV of future wages
Structure capital	Equity knowledge capital
Relation capital	

…but terribly hard to quantify!

Does it matter?

(1) Some acquisition costs are current expenses

- ➔ should have been capitalized and depreciated, but at what rate?

(2) Actual knowledge capital created is much higher than costs

- ➔ difference should have been treated like equity capital
- ➔ equity finance capital rent is recognized as opportunity cost

(1) is a tax-wise advantage (otherwise a liability)

(2) is a liability in case of progressive taxation

(2) - (1) depends i. a. on capital/cost multiplicator

⇨ **Can be very high!**

There are very real consequences:

- Assume an ICT company uses lots of brain power but only owns computers.
- Very high income, but asset capital base very small
- Is all above 6-7% of capital base really clean profits?
- Can Norway become a leading knowledge economy if we tax knowledge rent at progressive rates?

Baruch Lev's definition of knowledge rent:

All profits above «normal»
(assuming there is no resource rent, monopoly etc)

Capital value theory definition of clean profit:

All profits above «normal»
(assuming there is no knowledge rent)

Actually there are three main sources of rent:

(1) Asset/finance capital

(2) Knowledge capital

- These belong to the company - returns requiered
- Should be taxed at flat rate for investment neutrality

(3) Resource/monopoly capital

- Belongs to society that can take a high tax share

Knowledge capital is any non-material value creating capability.

Includes i. a. capacities and capabilities that because they are sufficiently unique cannot easily be extended without being diluted.

All very efficient companies possess endogenous value creation capability and therefore knowledge capital.

Knowledge capital and asset/finance capital are separate sources of rent

RETURNS

INTELLECTUAL CAPITAL

RETURNS

ASSET CAPITAL

Knowledge capital isn’t shown in the balance sheet, so all rent appears to come from asset/finance capital.

This is why leading companies get and require higher ROCE than «normal».

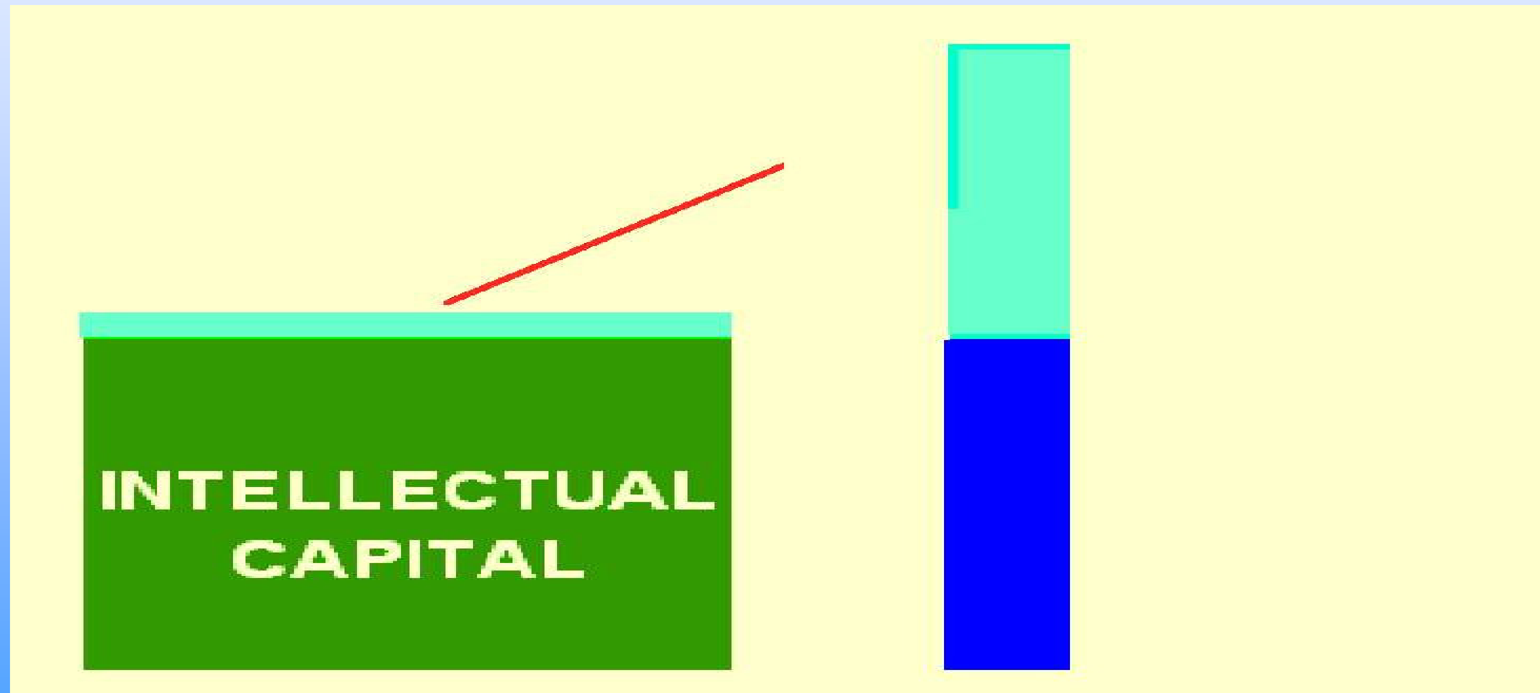
A company with average ROCE isn‘t a leading knowledge company.

In the knowledge economy, companies' efficiency and earnings vary permanently around "average".

Making average ("normal") returns the standard by taxing away most profits above average....

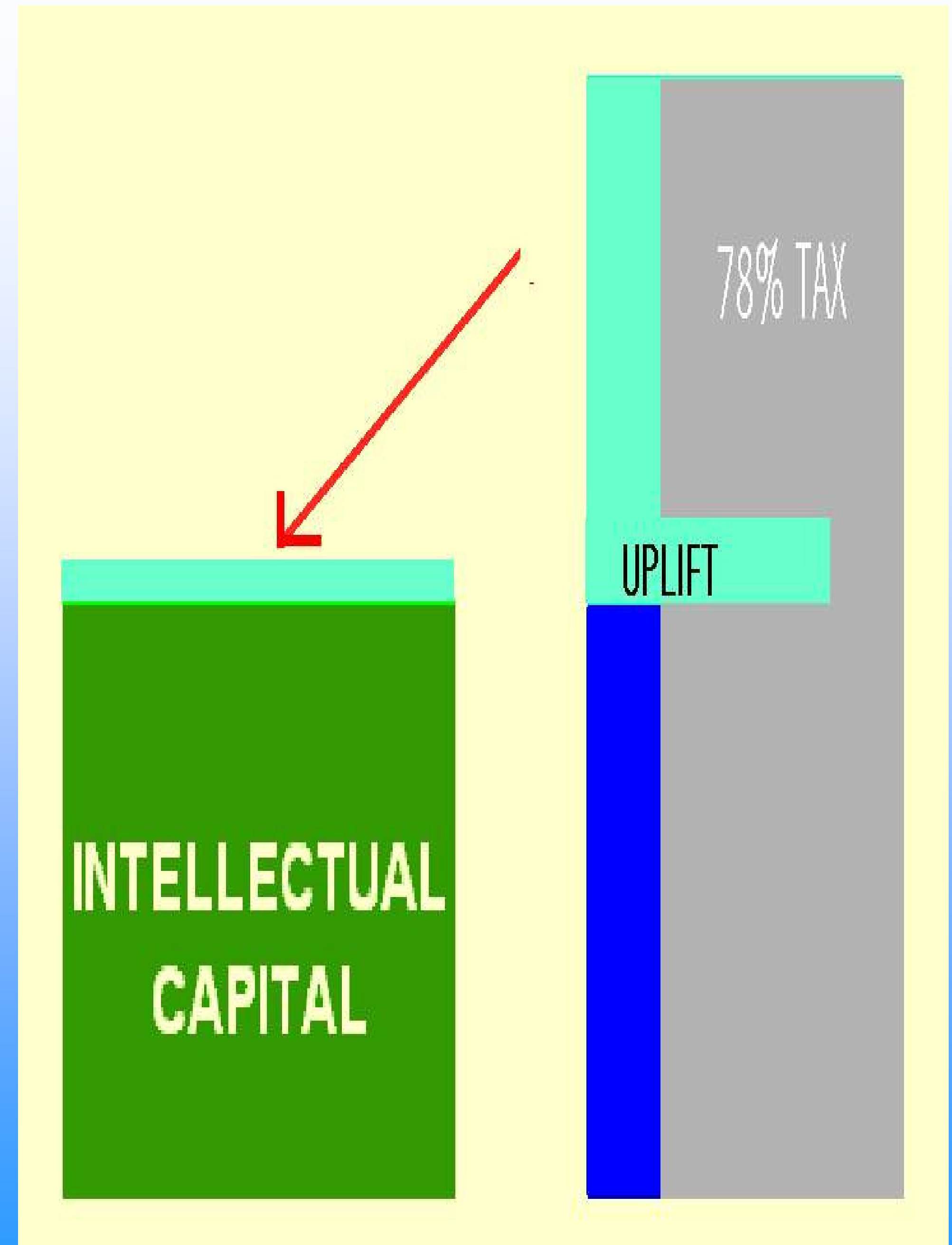
....will make us an average nation on knowledge and technology, in conflict with explicit political ambitions.

On project level, profits must meet requirements for both kinds of capital. If project income depends on asset capital base, a small project will not give sufficient knowledge rent:



This is a main reason why leading companies require *materiality* or *financial volume*.

A project’s materiality is also reduced by high tax rates, even if all identified costs are «shared» at the same rate (and even if equity finance rent is recognized as opportunity cost, like uplift in the PTA):



Discussion valid for

- ➔Petroleum tax
- ➔Power tax
- ➔Fisheries/fish farming?
- ➔Any “KAF” tax
- ➔Skauge Commission?

Final question: If we correct negative externalities (CO_2 tax etc), should we also correct positive externalities, and what will this do to neutrality across industries (ex. shipping tax)?

But given there are such externalities, they provide a better margin for adjustments to make room for knowledge rent etc. when this is in risk of being confused with resource rent – “no regret”.