

# Main Policy Determinants of Investment in Tertiary Education

IMHE General Conference "Outcomes of Higher Education: Quality relevance and impact".  
Paris, 9 September 2008

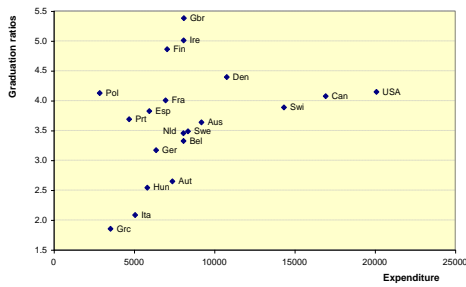
Presentation by

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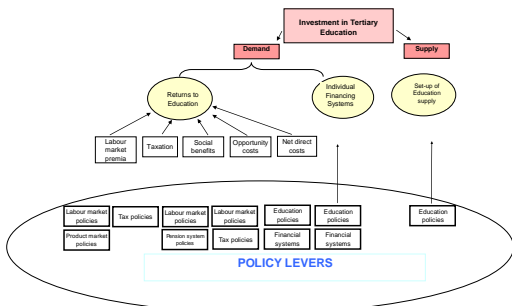


## Spending per student vs. investment outcomes: a mixed picture

Graduation ratios vs. costs per student, 2001



## Framework of the analysis



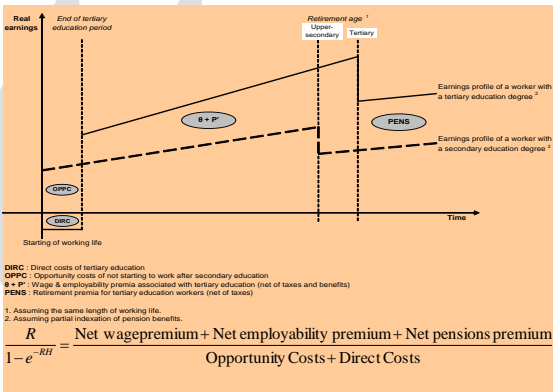
# I. The determinants of investment in Higher Education

**Issues:**

- What are the main determinants of human capital that can be related to policies? Here we focus on private returns, financing systems and supply characteristics

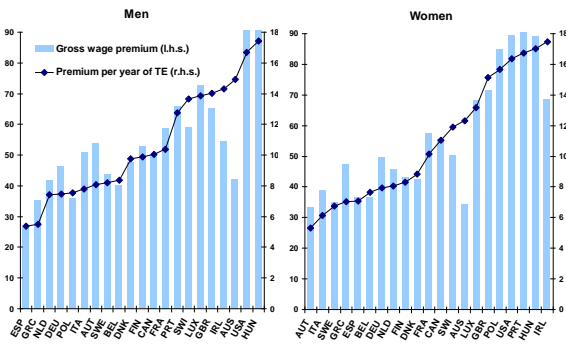


## Internal Rates of Return illustrated



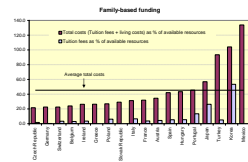
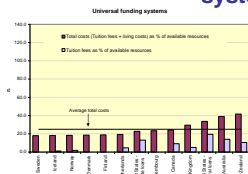
## Wage premia of higher education

2001, % of upper-secondary wage





## Availability of individual Funding: two main systems



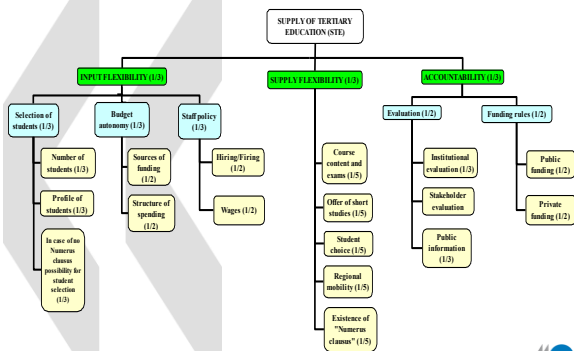
Tuition fees + Living Costs  
Public funds + Part-time earnings + Household resources

### Ex: Australia's System

- Tuition fees
- Universal loans system
- Income-contingent repayments
- Repayments collected through the tax system
- Targeted grants (asymmetric information and risk aversion)



## Supply structure: the STE indicator

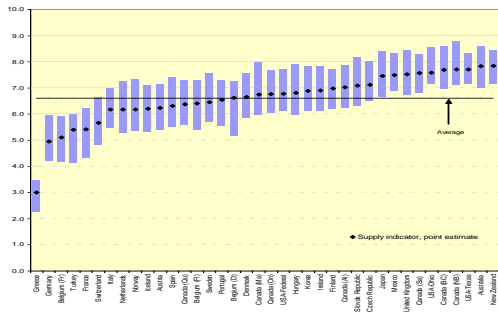


NB: weights are in ( )

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## Composite Supply indicator of TE (centralised systems=0 incentive-based systems=10)



NB: Blue bands correspond to confidence intervals computed through a random weight technique



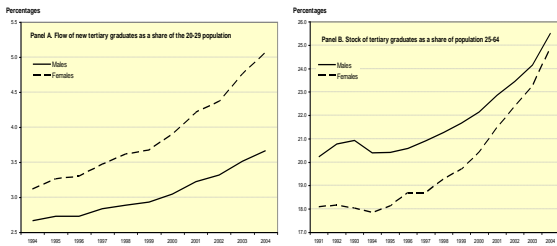
## II. Trends in Investment in Higher Education

**Issues:**

- What measure of Human Capital? (Stocks, enrolment, graduation rates)
- Fields of education



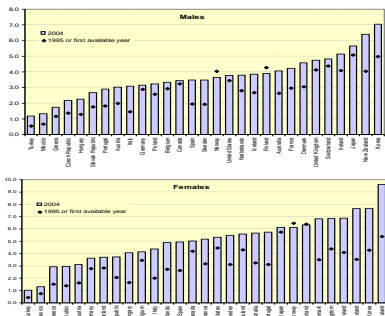
### Trends in tertiary human capital OECD average, 1994-2004



NB: ISCED 5a-b, 6; based on graduates (harmonised by EDU, 2004) and time series of graduation rates.



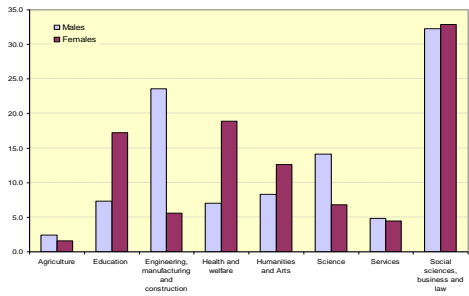
### New tertiary graduates as a share of population aged 20-29, 2004



NB: ISCED 5a-b, 6; based on number of graduates (harmonised by EDU).



## What is the share of different fields? OECD average, in % of new tertiary graduates, 2004



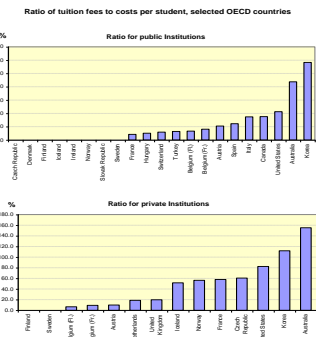
## III. Impact of Policies

### Issues:

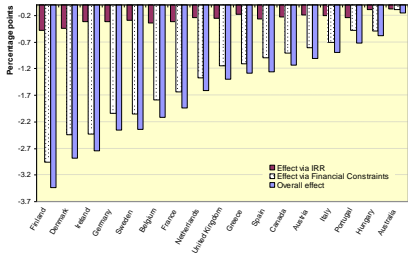
- What is the impact of an increase in tuition fees?
- What is the impact of easing liquidity constraints?
- What is the impact of increasing autonomy and accountability of higher education institutions?



## Tuition fees are well below costs in many countries



### Impact of an increase in tuition fees on graduation ratios



Note: Effect on graduation ratios of increasing tuition fees up to the sample mean plus two standard deviations. (The United States are not included because the level of net tuition fees are already above the sample mean plus two standard deviations).




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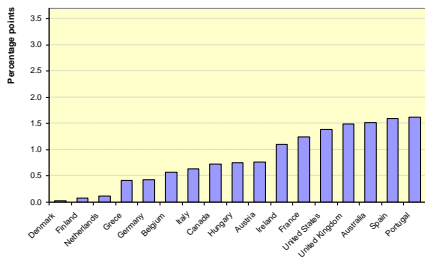
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### Impact of easing liquidity constraints on graduation ratios



Note: Effect of an alignment of the ratio of investment costs to financing resources on the minimum in the sample (this benchmark was preferred as the sample mean minus two standard deviations is below the minimum).




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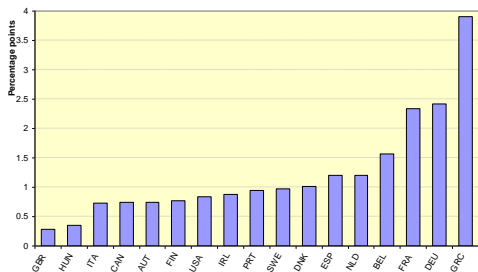
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### Impact of increasing autonomy and accountability of supply on graduation ratios



Note: Effect of aligning the STE indicator on the maximum in the sample (Australia).




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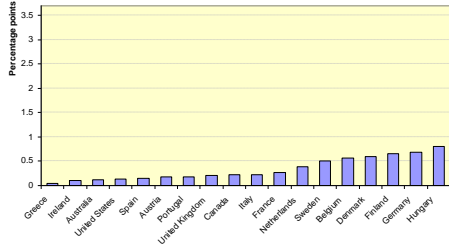
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## Impact of a decrease of marginal tax rates on graduation ratios



Note: Effect on graduation ratios of decreasing marginal tax rates by 5 percentage points.




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## Three main recommendations

- Make individuals aware of both the cost and future returns of their investment, possibly by contributing to financing HE
- Provide universal-based individual financing of HE to ease liquidity constraints
- Provide more autonomy and accountability to universities




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*Thank you!*




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