EQUITY IN LEARNING?
Regional analysis of 2009 PISA results

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What is PISA?

• The OECD’s *Programme for International Student Assessment* assesses 15-year-olds abilities (every 3 years) in:
  – Reading
  – Mathematics; and
  – Science literacy

• measuring their preparedness for adult life
Participating countries in PISA 2009

- **13 CEE/CIS Countries**: Albania, Azerbaijan, Bulgaria, Croatia, Kazakhstan, Kyrgyzstan, Montenegro, Romania, the Russian Federation, Serbia, Turkey, Georgia, Moldova

- **EU8 countries**: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia

- Other 53 countries
Concern for learning levels

- About half of 15-year-old students in CEE/CIS countries did not master the baseline level in reading, mathematics and science

- Competency results show: Mastery of formal curricula knowledge but trouble applying knowledge
Within-country disparities in learning
Large achievement gaps

• The gap between the top and lowest achievers is large in all countries

• On average in the CEE/CIS countries, it is the equivalent of more than 7 years of schooling

• But there are fewer differences in some countries than in others
Gender gap

- Girls have substantially higher average scores in reading than boys in all countries.

- Gender gap is usually smaller in digital reading & non-continuous texts.

- In maths and science, gender gaps are much smaller (in some countries in favour of boys, in others in favour of girls, or no difference).
Impact of socio-economic background

• Socio-economic background has, among variables, the strongest impact on performance in all countries, but in some countries less than in others.

• School’s average socio-economic intake tends to have greater impact on a student’s performance than his or her own individual background.
Variance between schools

- Countries in which students are not separated in different schools according to socio-economic background tend to have small between-school differences in performance and high overall performance.

- In many countries more disadvantaged students tend to be in schools with lower share of full-time teachers with advanced university degrees (but with lower student-teacher ratios).

- City schools do better, even after accounting for socio-economic differences.
System-level factors associated with learning achievement
Best performance and equity

- Estonia is one of the 8 education systems with above-average performance and below-average impact of socio-economic background (over all PISA countries)

- Commonalities are: high value placed on education, clear and ambitious standards, quality of teachers and principals, high quality learning consistently provided to every student
Money matters?

- Close association of GDP per capita with student performance among CEE/CIS, but weaker among richer OECD countries.

- Systems prioritising teachers’ pay over smaller classes tend to perform better.

- Socio-economically-advantaged schools tend to have more educational resources (and to perform better): need for more equitable distribution of resources.
School autonomy

Countries with greater school autonomy in curriculum design, course offerings & content, student assessment policies and choice of textbooks, tend to show better performance in reading.
School climate

• Schools with better disciplinary climates, more positive behaviours among teachers and better teacher-student relations tend to have higher scores in reading.

• Most of this effect is connected to socio-economic background: more disciplined classes are generally attended by students from advantaged background.

• Challenge is to weaken association between background and climate, also by changing social mix of students.
Pre-primary education

• Given importance of home background, attempts to mitigate disadvantage need to begin even before a child starts compulsory school.

• Students who have attended pre-primary education for more than a year tend to show higher reading performance than those who haven’t in almost all CEE/CIS countries (even after accounting for socio-economic background).
Improve teacher motivation and commitment

A recent UNICEF report on teachers in the CEE/CIS notes:

• shortage of *qualified* teachers for particular subjects, grades & districts, especially in schools serving minority language communities;

• tendency for teacher shortages to be covered up at the school level by hiring retired, correspondence & substitute teachers;

• statutory teaching load is very low, compelling teachers to take on additional teaching hours, work as private tutors, solicit fees from parents, take up a job outside school.
Public policies in education matter

• Should be based on the collection and examination of rigorous evidence from sources such as international assessments (PISA, PIRLS, TIMSS...etc.)

• Shift attention from schooling inputs to monitoring learning achievement through time
Thank you!