SPEAKING POINTS 30 minute lecture on

2052 – A GLOBAL FORECAST FOR THE NEXT FORTY YEARS –

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40 years ago we wrote The Limits to Growth

12 scenarios for the world to 2100

6 negative ("crises") and 6 positive (various degrees of "sustainable development") ¹ Unable to tell which was most likely due to missing data

Main message: The planet is small - **EF can't grow for ever on a small planet**Danger of overshoot – current systems of governance (capitalism and democracy) will react too late and allow growth beyond the carrying capacity of the planet

Both hotly contested at the time

Today we know much more

Growth has indeed continued since 1972

And we have overshot

Global governance has indeed allowed overshot

We emit twice as much CO2 as is being absorbed by the world's forests and oceans Despite the fact that it is technically possible to reduce emissions at a low cost

A shift of 1 -2 % of the labour force and capital from dirty to clean sectors would suffice

What will happen over the next forty years?

My answer is described in 2052 book - a report to Club of Rome

My educated guess, based on all the data that have come available since 1972

My motivation was two fold:

Curiosity about how the rest of my life will be

A wish to kick the world into action

All details available at www.2052.info

World forecast calculated as sum of 5 regions

Technological innovation will continue at historical rates

There will be little change in fundamental values and preferences

But new problems will emerge (depletion, pollution, climate change, inequity, social strife) - and will be met with increasing investment (repair costs)

¹ I show graphs solely to demonstrate there is much work behind my simple words

Here is the core of the 2052 Forecast

Population – will peak in 2040 because of falling fertility

World GDP will level off – because of rich world inability to maintain productivity growth in mature economies, and because no take-off in many poor countries Investment share of GDP – will increase as global society tries to solve new problems after they occur

Energy use – equals GDP times declining energy use per unit of GDP; will peak in 2040

CO2 emissions – will peak in 2030 and be back to current level in 2050

Temperature – will pass the danger threshold of +2 °C already in 2050

Huge regional differences

Slow growth in after-tax disposable income in the rich world, and decline (!) in the US Because maturation of economy, big debt, inequitable distribution and slow decision making

Rapid growth in China – because of strong decision making

Mixed results in the rest of the world

Summary of my forecast

We will see a smaller world (fewer people and smaller GDP) than most analysts think Means slow growth over the next forty years

The smaller ecological footprint means there will be enough resources

Still consumption pressure will hurt biocapacity

Continuing rise in climate events and other calamities

The natural world will disappear – at least outside parks

Much more poverty than most expect – both in poor and rich world

A sad future!

Global growth will slow - but not fast enough to avoid a climate crisis in the middle of this century

Resembles scenario 2 from *The Limits to Growth*: "Pollution crisis"

Feels bitter – because it would have been so simple to solve the climate problem

A shift of 1-2 % of the labour force from dirty to clean sector would suffice

All because of inadequate global governance

We need to shift investment flows from what is most profitable to what society needs Capitalism won't do this

it is made to allocate money to what is profitable, not to what society needs
And democratic parliaments won't pass regulations that could change this reality

- because voters are against solutions that require higher taxes,

more expensive gasoline or electricity in the short term

The root cause is short-termism in capitalism and democracy

What needs to be done? – Globally

- 1. Slow growth further: Have fewer children, particularly in the rich world
- 2. Reduce the footprint: Eliminate fossil fuels, first in the rich world
- 3. Help the poor: Build a climate-friendly energy system in the poor world
- 4. Temper short-termism: Establish supra national institutions
- 5. Establish new goals: Increase societal wellbeing in a world without growth.

A final word of inspiration I don't like what I see

But my forecast is a cliff hanger - a small extra effort would to a lot of good Gives motivation for extra effort

I hope the extra action will come forth and make my forecast wrong