

Exploring Future International Migration: A Scenario Approach

Simona Vezzoli

Simona.vezzoli@qeh.ox.ac.uk

International Migration Institute
Oxford Department of International
Development
Oxford Martin School
University of Oxford

- View migration as a long-term process part of our past, present and future
- Imagine the future of international migration *not* as projected numbers but as evolving patterns out of changing social and economic contexts
- Present scenario methodology, its advantages and drawbacks
- Provide an insight view of scenario work

- What do we know about migration today?
 - Multiple drivers of migration
 - Economic and political drivers
 - Demography - aging and youth bulge
 - Education, technology, environment
- Theories and models
 - “Causal factors” can have a counter-intuitive, often non-linear effect on migration
 - Complex interactions between different drivers (e.g., indirect role of demographic & environmental factors)
 - Long-term trends (and migration policies)

International migration in public debate

- Migration as a problem/emergency which needs an immediate solution
 - Problematic approach:
 - Migration is presented as a sudden short-term event rather than part of broader processes
 - Migration can be controlled with the appropriate migration or non-migration policy, ignoring complexity of migration drivers
- Result: Migration policies designed to control migration with potentially unintended and perverse effects

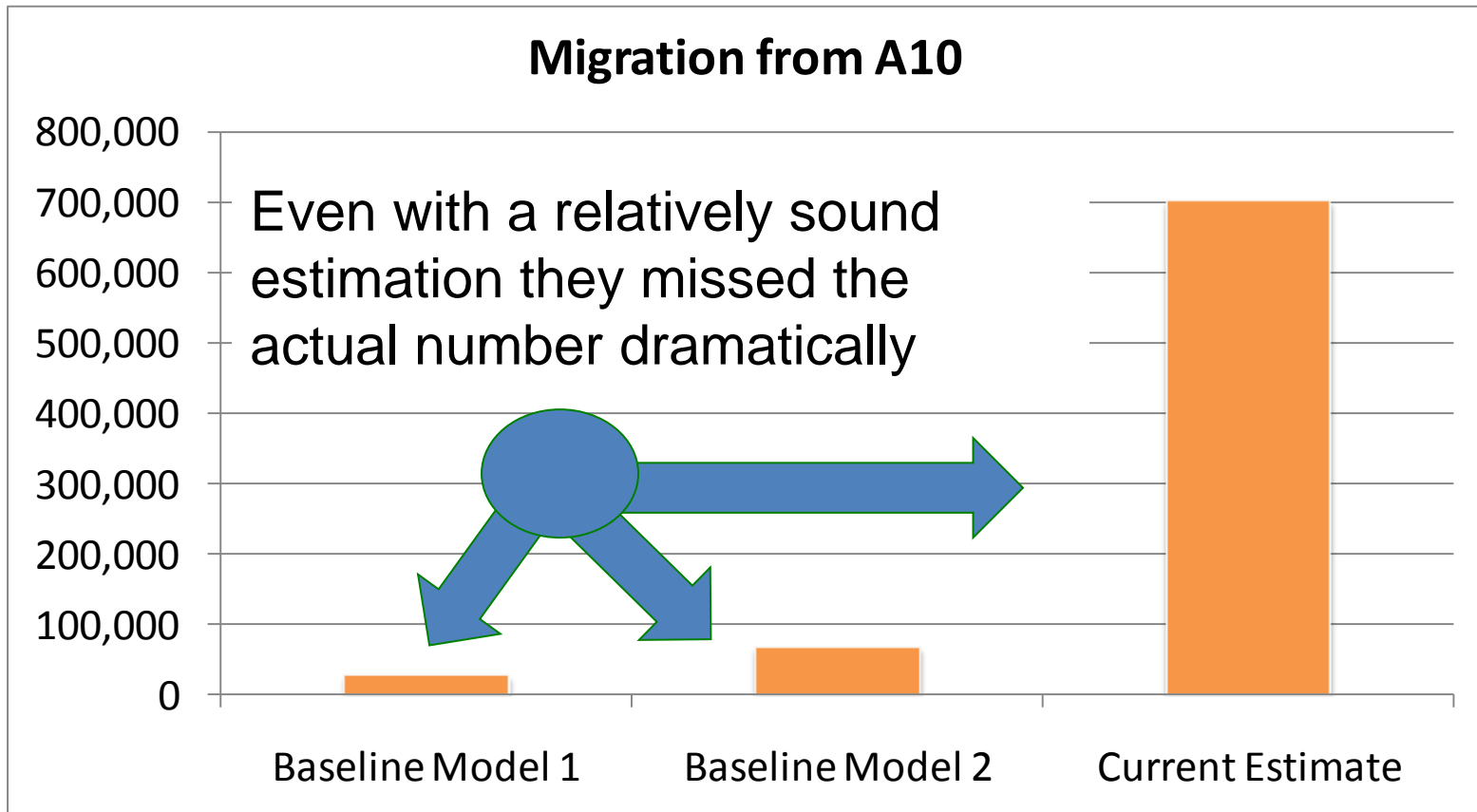
- Studying the future of international migration:
 - Probabilistic projections of current trends into the future (e.g., forecasting)
 - Forecasts are powerful ways to describe the future
 - Quantification of the future
 - Offer a range of likely outcomes
 - Users of forecasts have concrete data to plan

But, how successful are forecasts?

Using forecasting models: an example

- Dustmann et al. (2003), a report commissioned by the Home Office to forecast net immigration from the AC10 to the UK after the enlargement of the EU:
 - Estimations were based on rather high population growth rates in the AC10
 - Net immigration to the UK from the AC10 will be ‘relatively small at between 5,000 and 13,000 immigrants per year up to 2010.’
 - Two baseline projections: baseline model 1 = **4,872**; baseline model 2 = **12,568**
 - The UK opened its labour markets to the AC10 countries on May 1, 2004

Flows estimates to September 2009



Why can a sound model deliver poor estimates?

- Five main reasons:
 - Model applied across countries
 - Model applied across time
 - Explanatory variables must themselves be forecasted
 - Complex levels of impacts and feedback
 - Even when data are not a problem, there are uncertainties, which models are unable to incorporate

$$v_q = -r_s i_q + \frac{\omega_r}{\omega_b} \Psi_d + \frac{p}{\omega_b} \Psi_q,$$

$$v_d = -r_s i_d - \frac{\omega_r}{\omega_b} \Psi_q + \frac{p}{\omega_b} \Psi_d,$$

$$v_o = -r_s i_o + \frac{p}{\omega_b} \Psi_o, \quad p\theta_r = \omega_r,$$

$$0 = r_{aq} i_{aq} + \frac{p}{\omega_b} \Psi_{aq}, \quad p\theta_e = \omega_e,$$

$$v_f = r_f i_f + \frac{p}{\omega_b} \Psi_f, \quad \delta = \theta_r - \theta_e,$$

$$0 = r_{ad} i_{ad} + \frac{p}{\omega_b} \Psi_{ad}, \quad \omega_m = \frac{2}{p} \omega_r,$$

$$T_e = \frac{3}{2} \frac{P}{2} \frac{1}{\omega_b} (\Psi_d i_q - \Psi_q i_d),$$

$$p\omega_r = \frac{P}{2J} (T_a - T_e),$$

Even with certain data, when we look at the future we have uncertainties

Two major uncertainties:

Model uncertainties, which are comprised of the insufficient understanding of the mechanisms that operate in the migration process.

Migration = $f(y_{\text{host}}, y_{\text{home}}, \text{networks}, \text{policy}, \text{natural disasters} \dots)$



Contextual uncertainties, which are found in the constantly changing environment in which migration occurs.

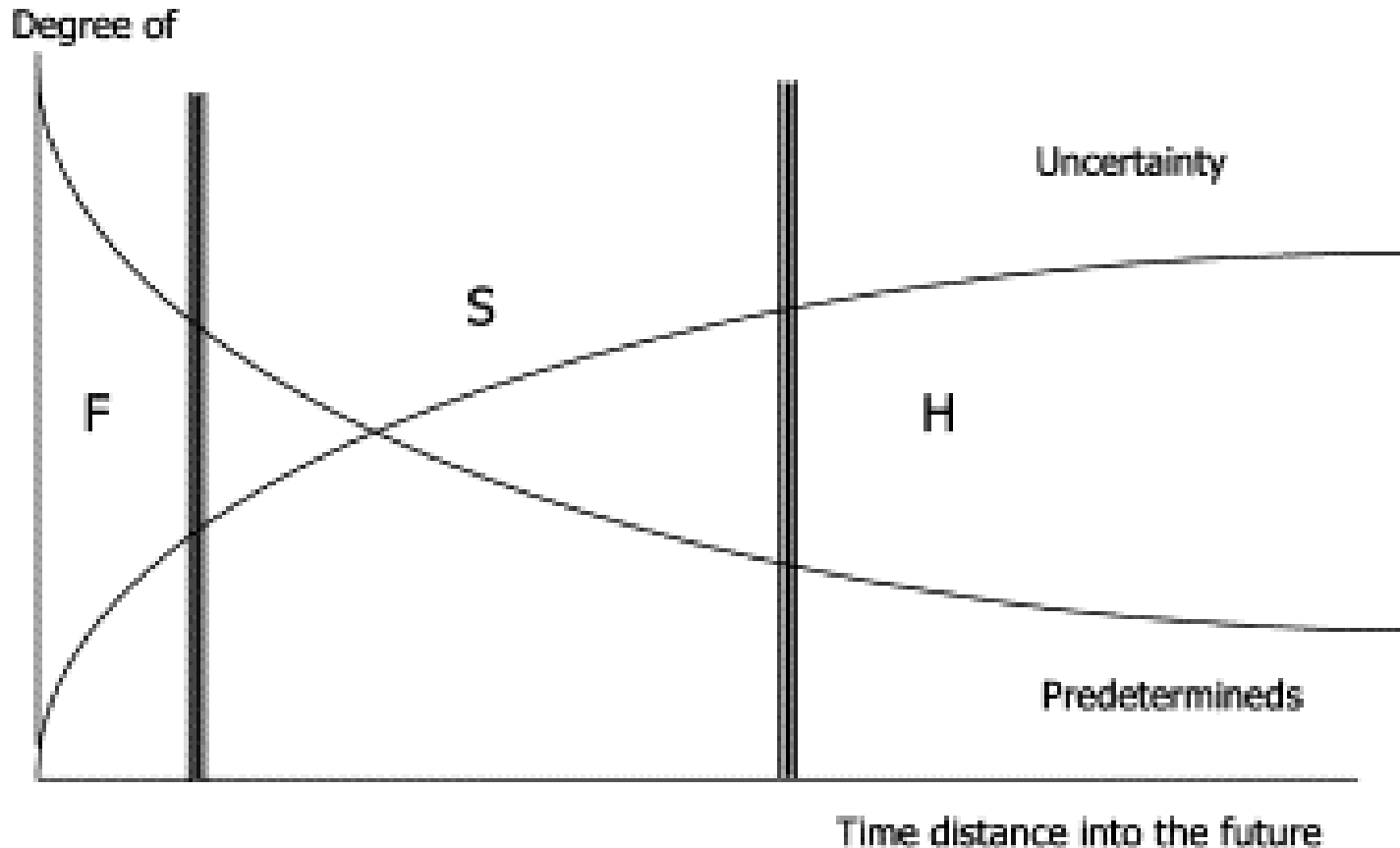
- Assumptions that:
 - There is *no change* in context
 - World the same in 2030 as it is today
 - Migration will be shaped by the *same drivers* tomorrow as today
 - Ex. Importance of technology as migration driver in 1950 and today
 - Migration drivers we recognize today will continue to operate *unchanged* in the future
 - Ex. Technology today affect transport, communication, information, production systems...tomorrow?

Assumptions that tomorrow will be the same as today

- Why do we assume *no change* in the future?
 - Anchoring in the present and recent past
 - Undervaluation of what is difficult to imagine and difficulty in recalling less recent history (*availability bias*)
 - Belief that we understand the context, the trends and the mechanisms that rule migration (*overconfidence bias*)
- Biases lead to:
 - Overall lack of long-term vision and imagination on how the future of migration might look like
 - Outcome: research and policy are ill-prepared

- Deconstructing our knowledge of migration
 - What do we know from the past?
 - What do we know about migration today that can help us understand future developments (relative certainties)?
 - What is it that we don't know (collective ignorance – uncertainties)?
 - What is it that we don't know we don't know (assumptions)?
- Reconstructing a more subtle view of the world, notice 'weak signs' and **possible** changes in migration patterns

The Balance between Predictability and Uncertainty



F = Forecasting, S = Scenarios and simulations, H = Hope connected to commitments and strong visions

Source: van der Heijden, 2005

Scenarios: What are they?

- Scenarios are a way to
 - *Systematically* approach possible (not just probable) developments in the future
 - Understand how the context in which *migration* occurs might shift
 - Uncover the *assumptions*, promote ‘out-of-the-box’ thinking, identify *certainties* and *uncertainties*
 - Prepare us for *the possibility* of something happening

Scenario methodology *accepts* that *uncertainties* exist and they are key factors that may shape the future

A short scenario story

In 2035, a combination of **high economic growth** and **high levels of political conflict and instability** characterise North Africa.

The discovery of significant oil resources in Morocco and other Maghreb countries in the 2010s and 2020s boosted economic growth and public investment. Despite such growth, social and economic inequalities are deepening within North African societies. There is increasing competition among ethnic and class groups about the control of natural resources, which has stalled processes of democratization and led to the emergence of a new, autocratic ruling class, whose power is necessarily contested through regular popular uprisings. State politics in North Africa have been characterised by power struggles, in which political actors seek political office to gain control over state-run natural resources.

What would this mean for migration in North Africa? Sub-Saharan Africa?
Europe?

- Stories created using multiple perspectives on:
 - What has happened in the past
 - What we know today
 - What could possibly develop in the future
- The stories must be:
 - Plausible
 - Coherent
 - Challenging our expectations
- Scenarios neither represent a perfect world, nor an apocalyptic world – they are a mix of positive and negative events and outcomes that *do not simply reproduce the status quo*

Scenarios are visualisations of possible futures that we do not necessarily expect to come true

1 Rooted

Movement within, to, and from the Horn of Africa and Yemen has dramatically decreased, and in some places has come to a halt. Not only are people constrained from moving, owing to a lack of capabilities, but people both within the region and in neighbouring regions have appeared to lose most aspirations to move.



2 Free Range

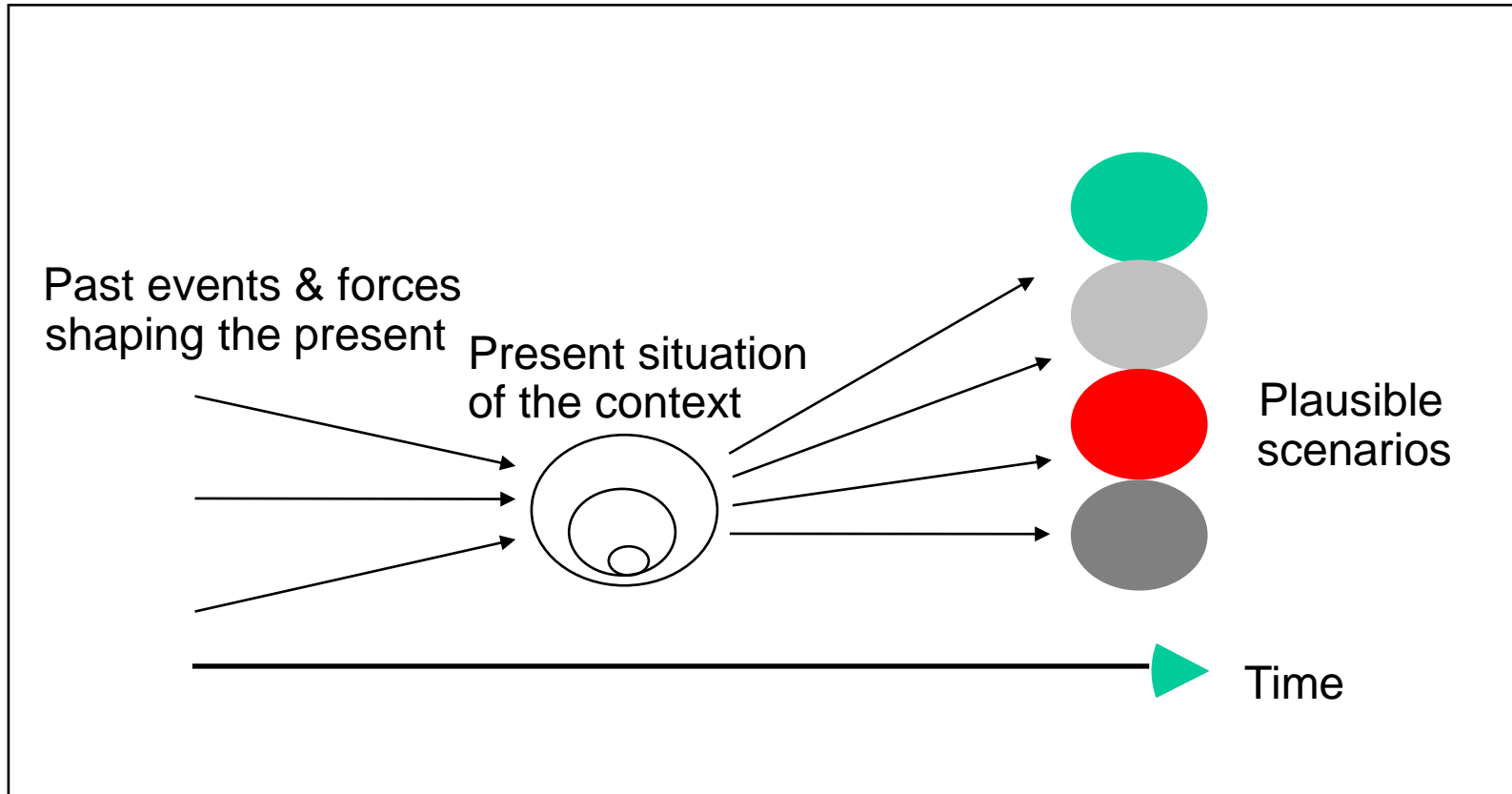
The Horn of Africa and Yemen region is an area characterised by open borders. Government policies have shifted to emphasise mobility over migration, allowing people to move freely in the region to live, attend school, and work without any red tape. To this end, governments are supporting programmes that allow individuals to be hypermobile in the region by investing in English and Swahili language programmes, infrastructure, cheap portable technologies, and introducing foreign budget airlines. Moreover, governments have made efforts to improve asylum procedures for individuals fleeing persecution or generalised violence.



- Scenarios offer techniques to develop a better understanding of migration processes
 - Intuitive method that encourages the ‘break down of mental barriers’ and promotes a stimulating and creative process
 - Identification of the ‘germs of change’ or ‘weak signals’
- Key role of multiple stakeholders
 - Awareness that knowledge of migration is available in many segments of society
 - Multiple stakeholders bring various experiences and perspectives from different sectors (i.e. business, government, academia and civil society), disciplines and backgrounds

The process is as important as the outcome

Overview of scenario production framework



Slide's author: Rafael Ramirez

Deconstructing migration knowledge

1. What do we know from the past?
2. What is it that we don't know we don't know (assumptions)?
3. What do we know about migration today that can help us understand future developments (relative certainties)?
4. What is it that we don't know (collective ignorance – uncertainties)?

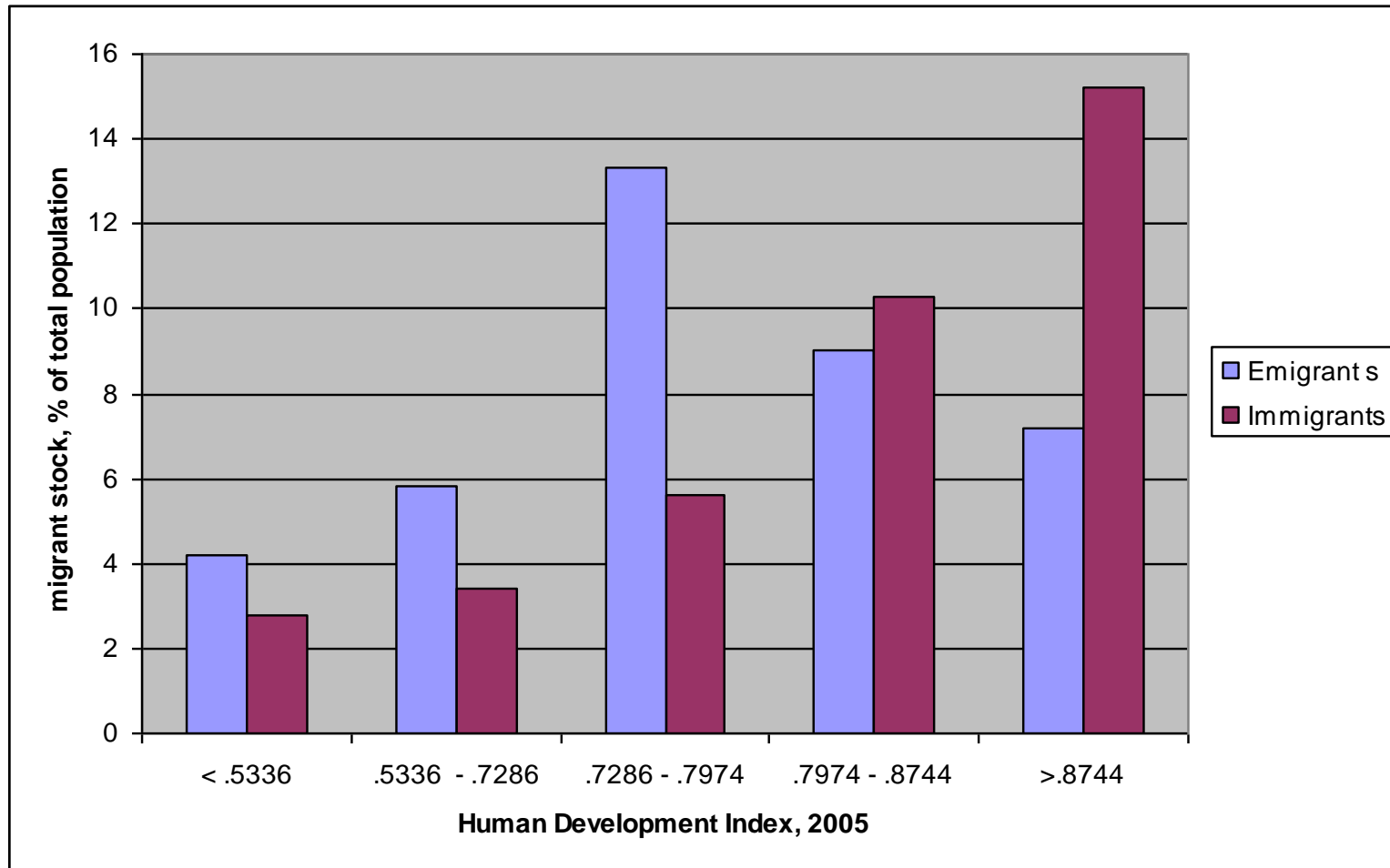
What we know: Learning from the past

- Identification of *continuities* and *discontinuities*
- Migration shifts in modern history of European migration
 - Post WWII economic growth and the guestworker programmes (Southern to Northern Europe and North Africa to Northern Europe)
 - The 1973 oil crisis, Libya and the Gulf
 - 1980s, Southern Europe increasingly attractive
 - Collapse of Soviet bloc and East-West migration
 - Restrictive immigration policies, transit and settlement in North Africa
 - What changed in last 60 years?
 - Gradual shifts or shocks to the structure?
 - What changes can we expect in the next 60 years?

The Need to Question Assumptions

- ***Ex.1: Development reduces migration***
 - *If* South-North migration is mainly driven by poverty and underdevelopment, development in origin countries will reduce migration (*policy solution*)
 - “Marshall plan for Africa”
 - **Evidence** shows that social and economic development tends to increase people’s *capabilities* and *aspiration* to migrate

Human development and migration



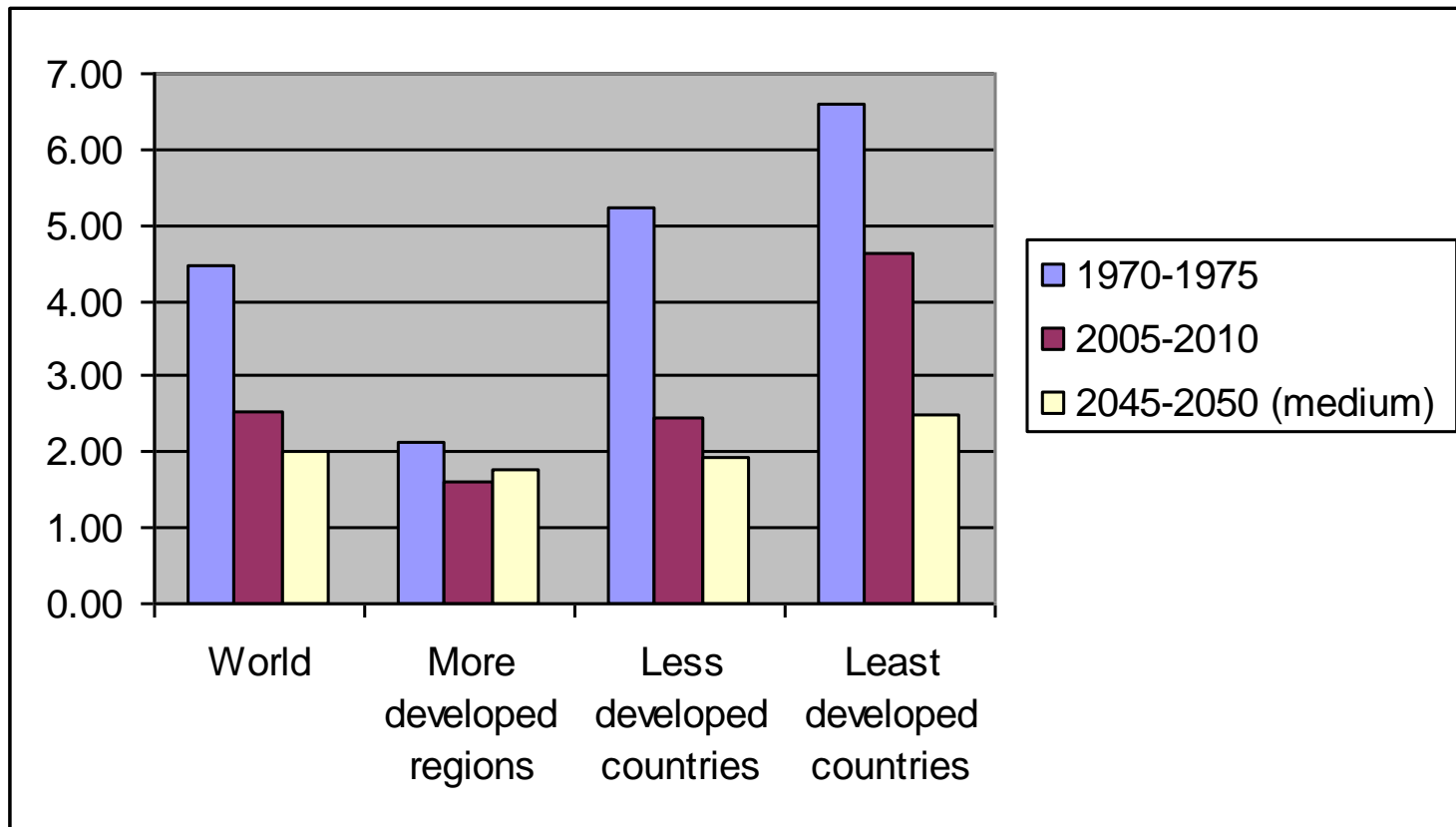
Source: de Haas, H. 2010. *Migration transitions: a theoretical and empirical inquiry into the developmental drivers of international migration*. IMI Working Paper, University of Oxford

The Need to Question Assumptions

- ***Ex.2: Where will future migrants come from?***
 - *If* high fertility, population growth and poverty continue in developing countries, we have a quasi unlimited global supply of lower skilled workers.
 - To achieve a reduction of flows, migration must be controlled at the destination (*policy solution*)
 - **Evidence** shows that lower fertility and higher education levels will affect future migration, but we don't know how because effects are mediated by other factors

Global demographic change and migration

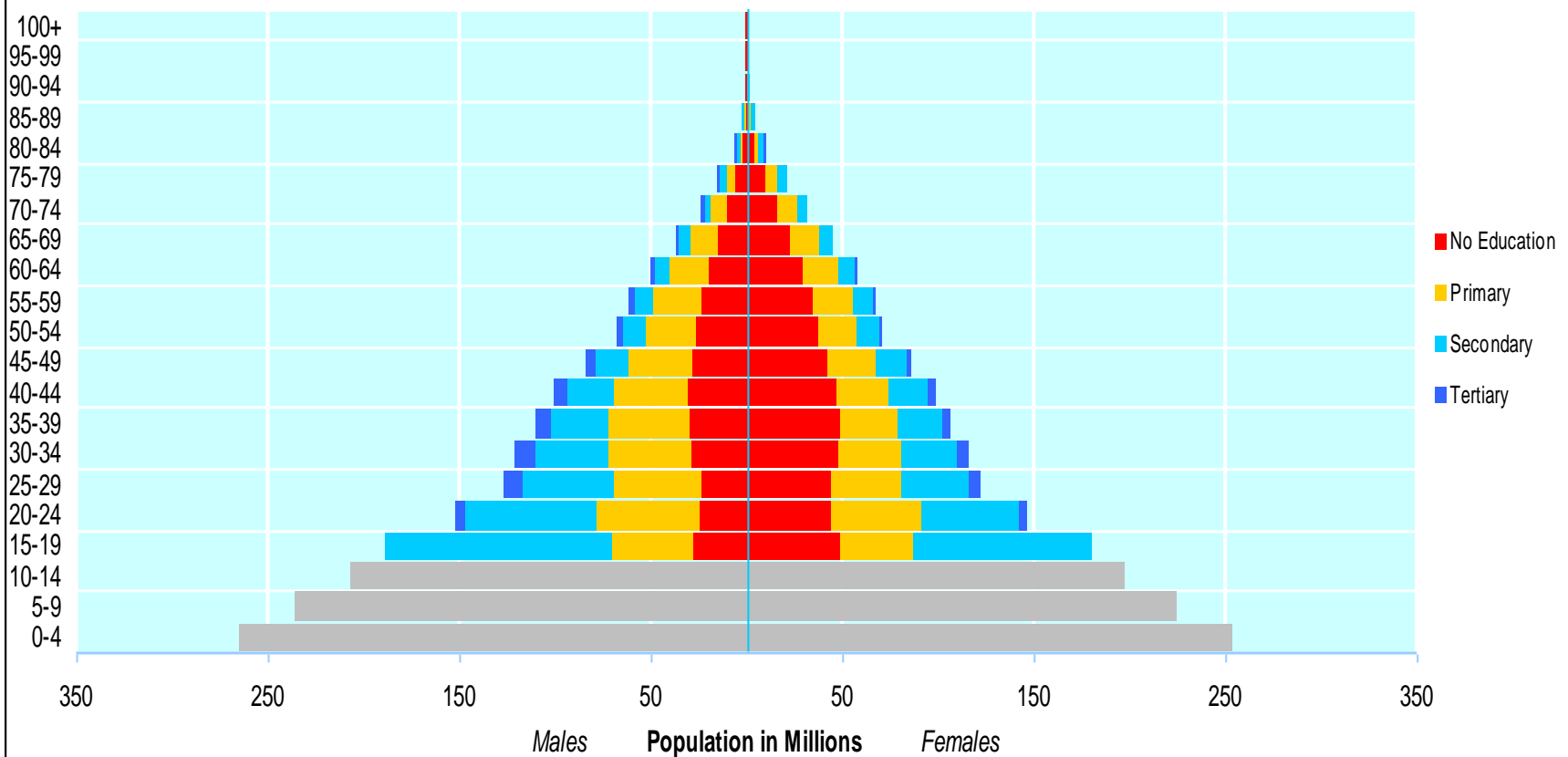
- Is the world running out of children?



Source: UNPD projections

World Population, 1970

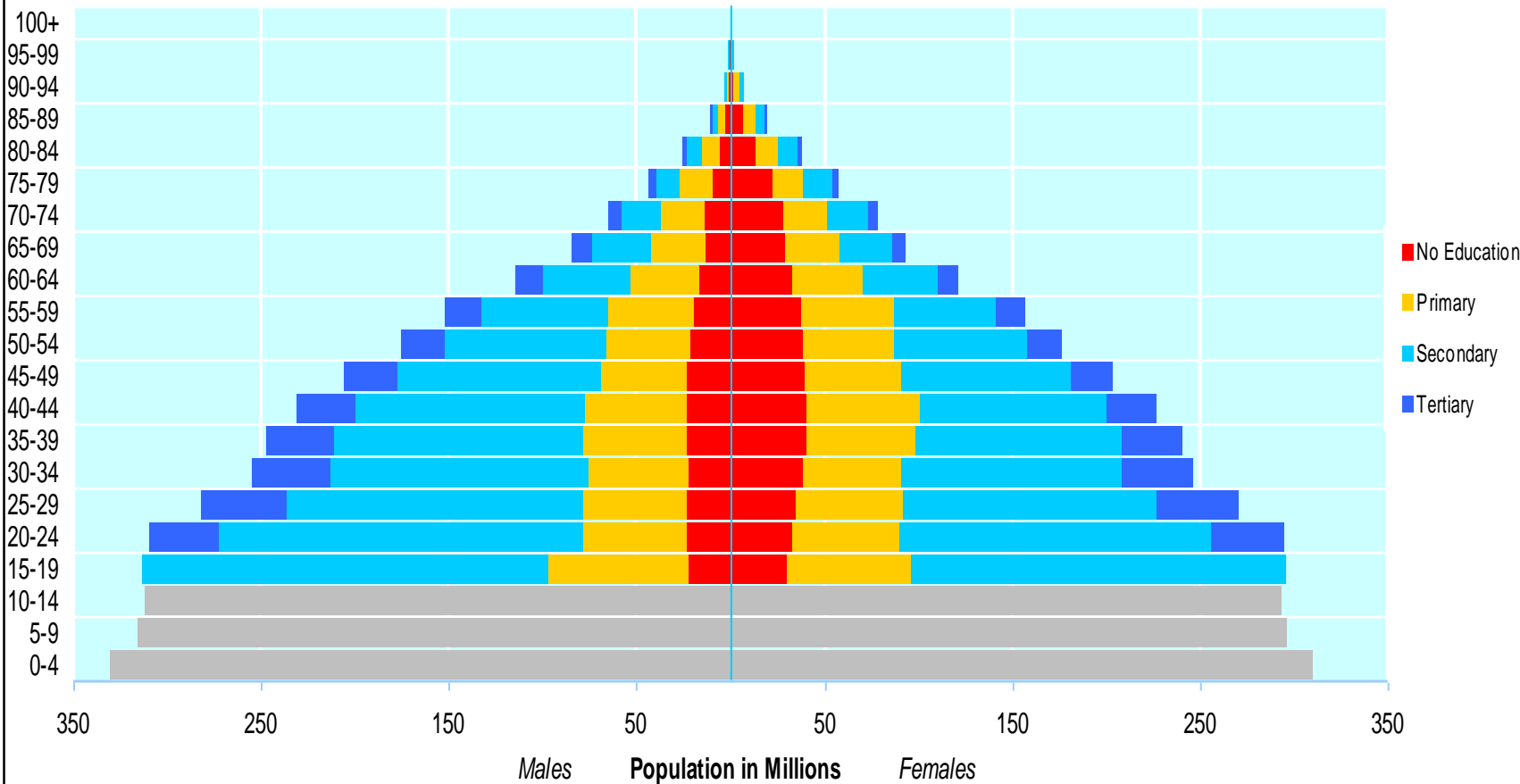
World - Population by Age, Sex and Educational Attainment in 1970



Source: Wolfgang Lutz, Vienna Institute of Demography,
Austrian Academy of Sciences

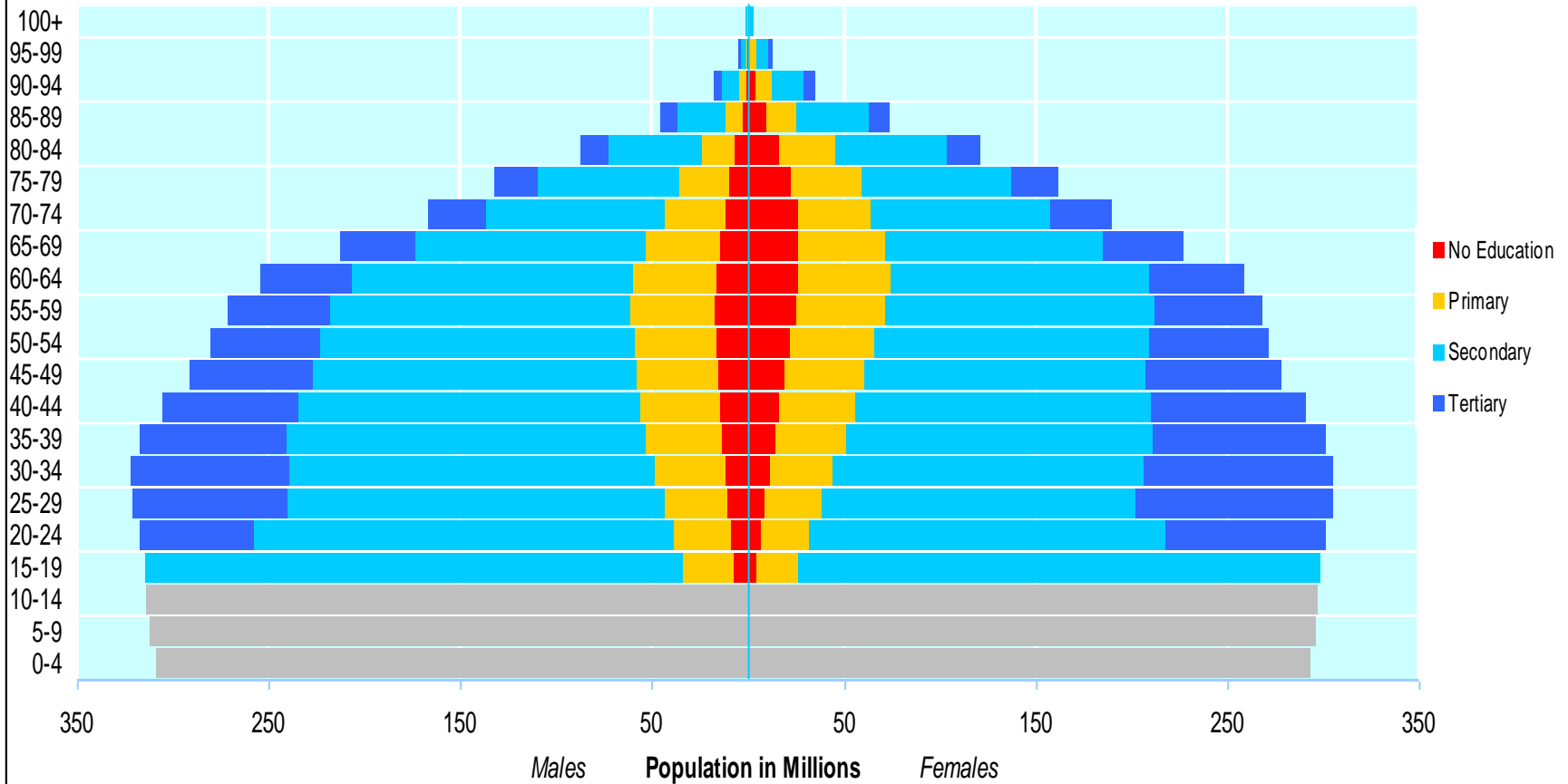
World Population, 2010

World - Population by Age, Sex and Educational Attainment in 2010 - Global Education Trend - Scenario



World Population, 2050

World - Population by Age, Sex and Educational Attainment in 2050 - Global Education Trend - Scenario



The Need to Question Assumptions

- ***Other common assumptions:***
 - *Climate Change and migration*
 - *Border control, immigration and settlement*
 - *Economic downturns and return migration*
 - *Transnationalism and integration*

What we know: relative certainties / megatrends

- Identification of ‘megatrends’
 - Megatrends are long-term driving forces or development trends that influence almost everything at all levels of society*
- Megatrends are the building blocks of all scenarios.
- Which contextual factors are relatively certain when thinking about migration between now and 2035 in Europe?
 - Demographic changes and aging?
 - Rising education levels?
 - Improvement of technology?
 - Ethnic and social transformation (diversity)?
- What impact may these factors have on future migration? (in their interaction with other contextual factors)

Relative certainties / megatrends

Relative certainties in Europe

- Demographic changes and aging
- Improvement of technology
- Climate change in EU
- Further improvement of status of women
- Ethnic and social transformation (diversity)

Relative certainties in North Africa

- Change in climate (*but how is uncertain*)
- Diasporas and networks
- Declining population growth
- Population aging
- Urbanisation
- Technological advancement

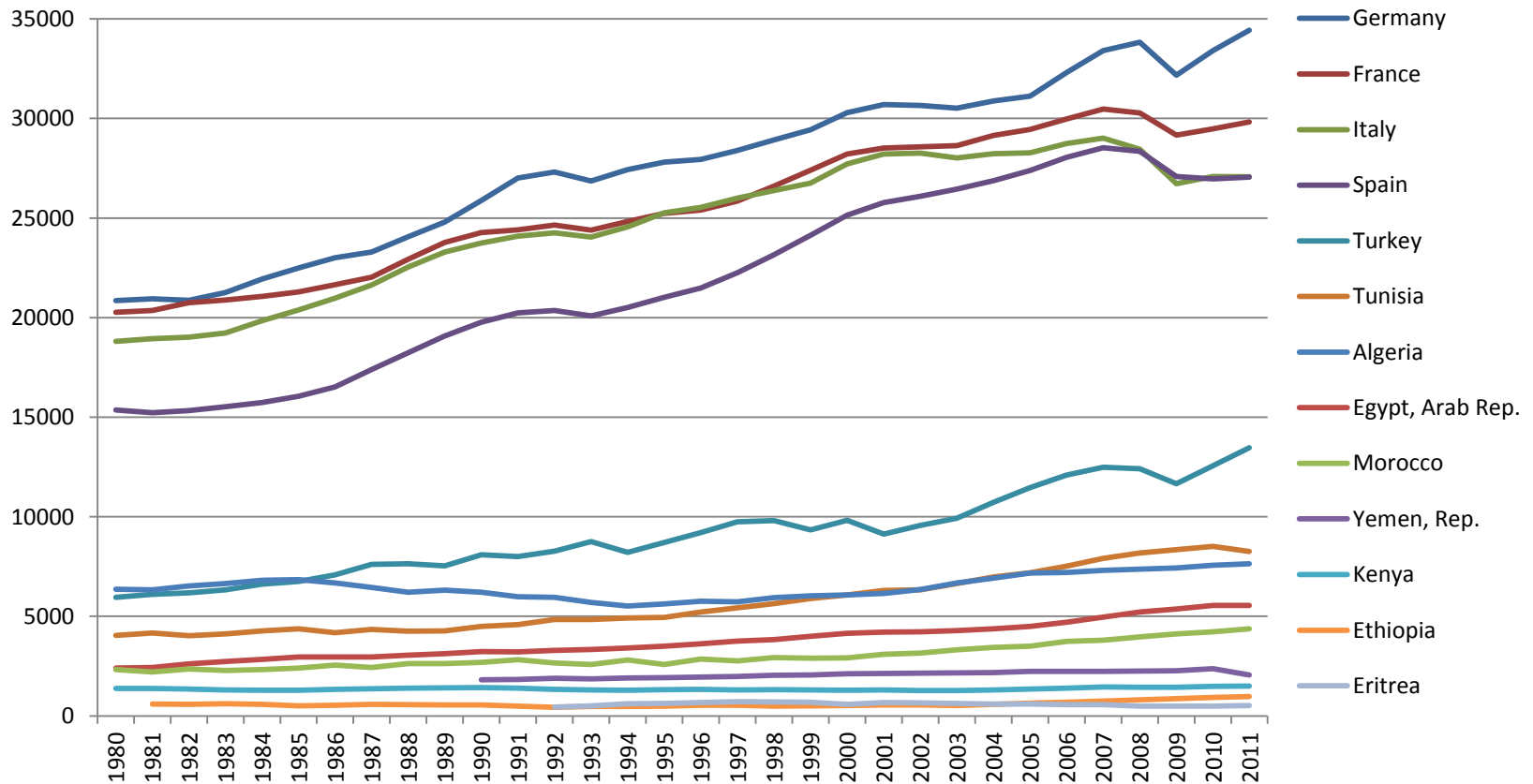
Relative certainties in Horn of Africa

- Decreasing fertility levels
- Large young population by 2030
- Urbanisation
- Rising education levels of females
- Improvement of technology
- Economic gap with High Income countries

The Contextual Environment: Economic Growth

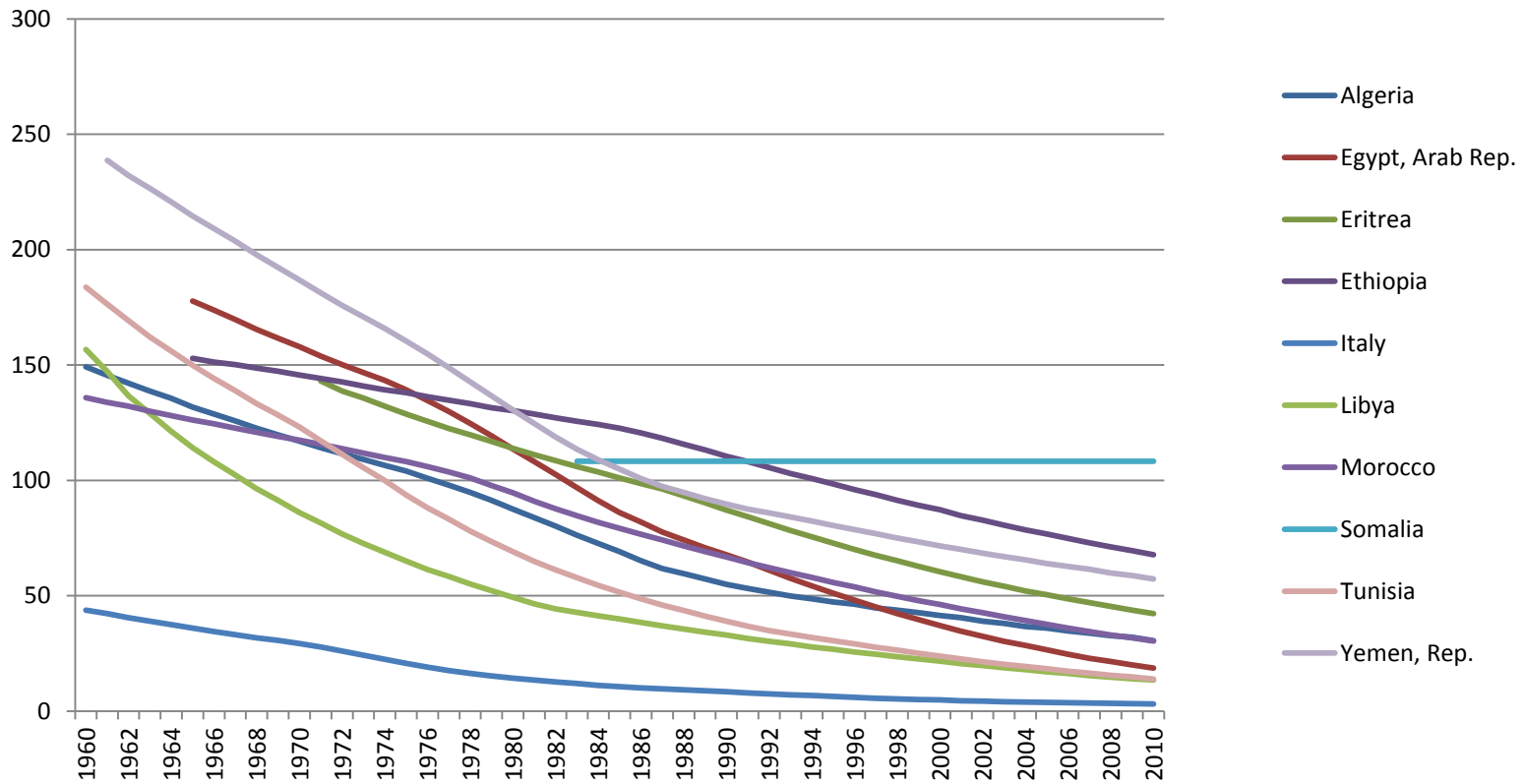
GDP per capita, PPP

(constant 2005 international \$)

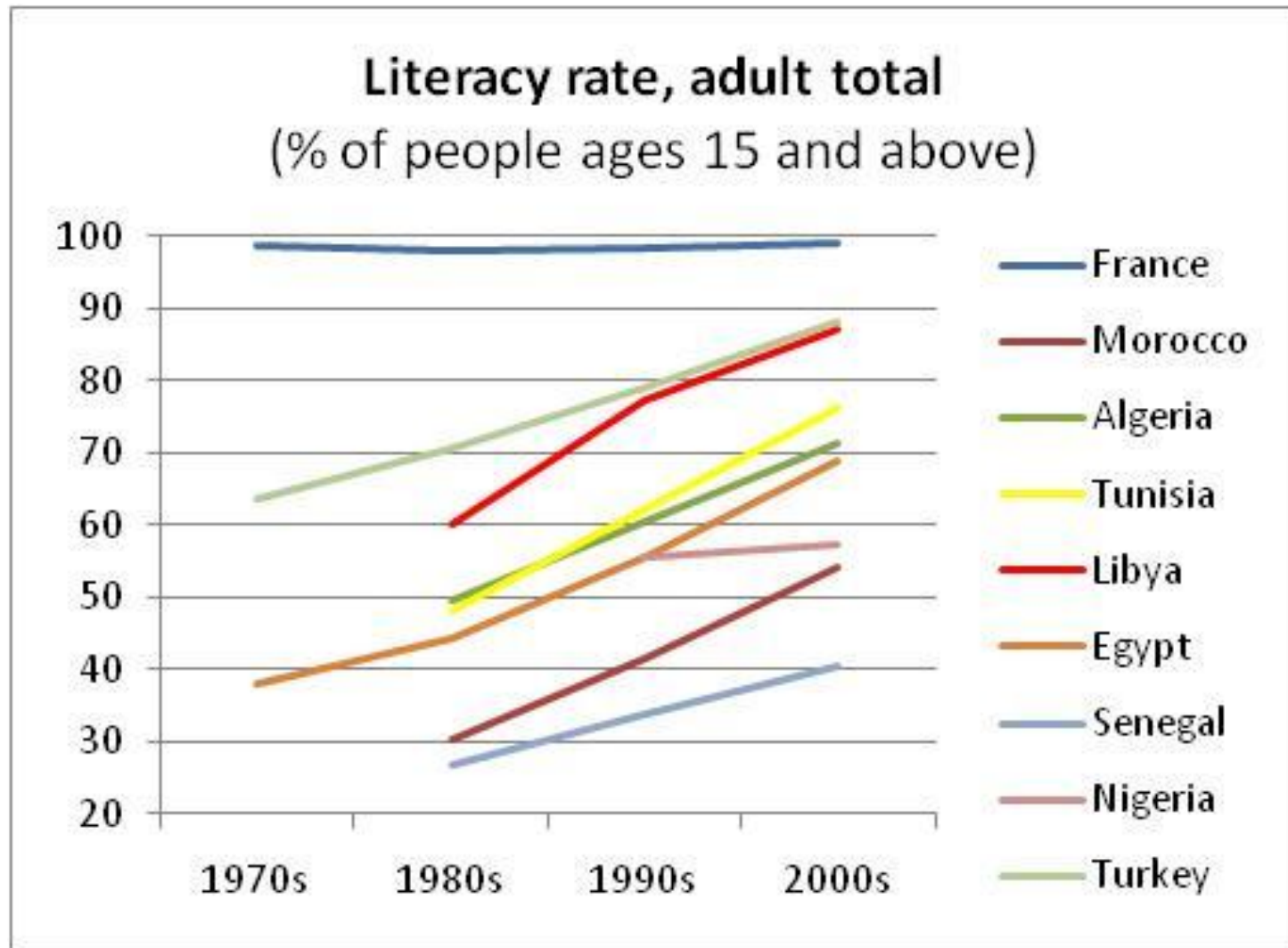


The Contextual Environment: Health

Infant mortality rate (per 1000 live births)



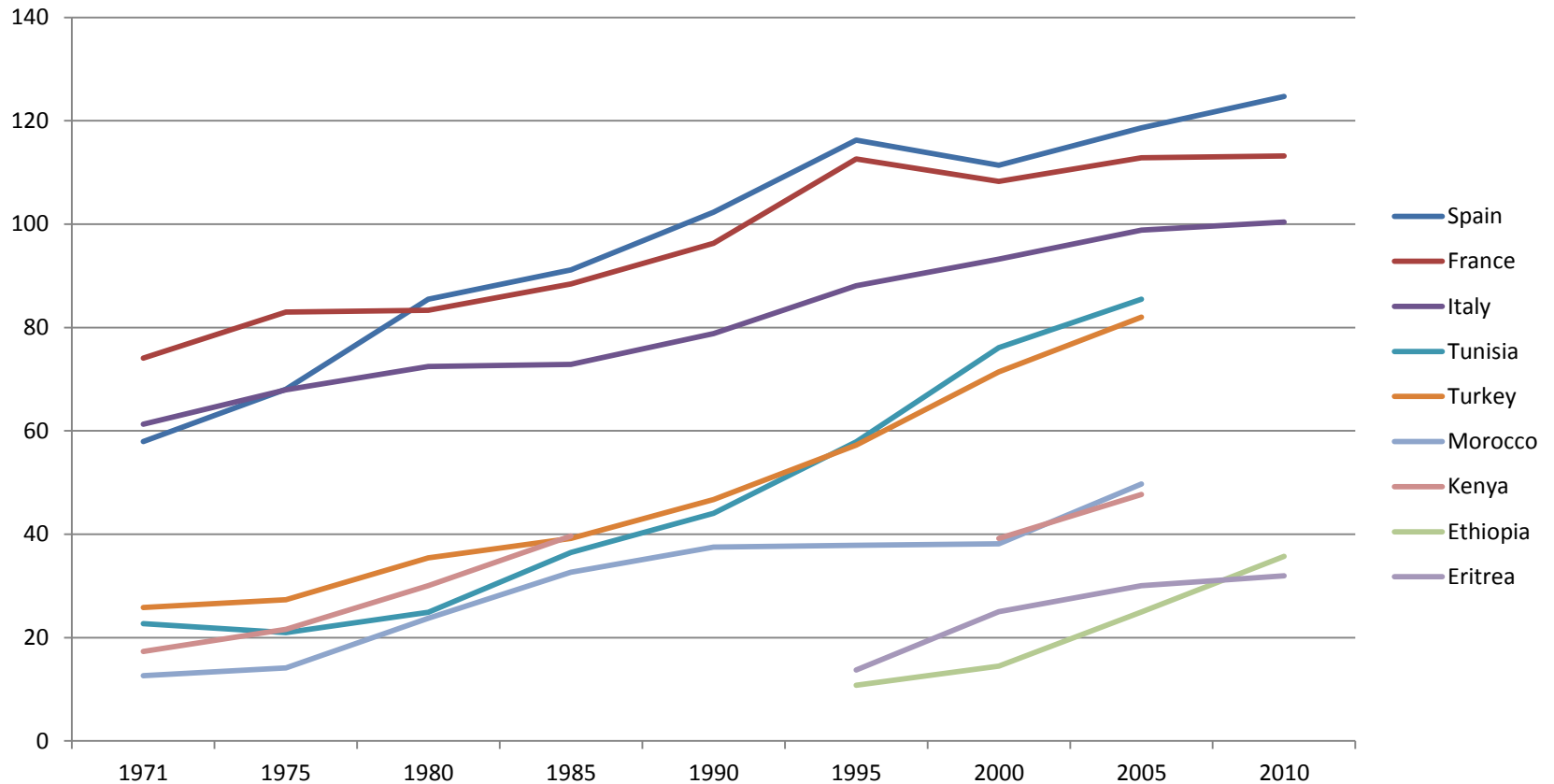
The Contextual Environment: Education



The Contextual Environment: Education

School enrollment, secondary

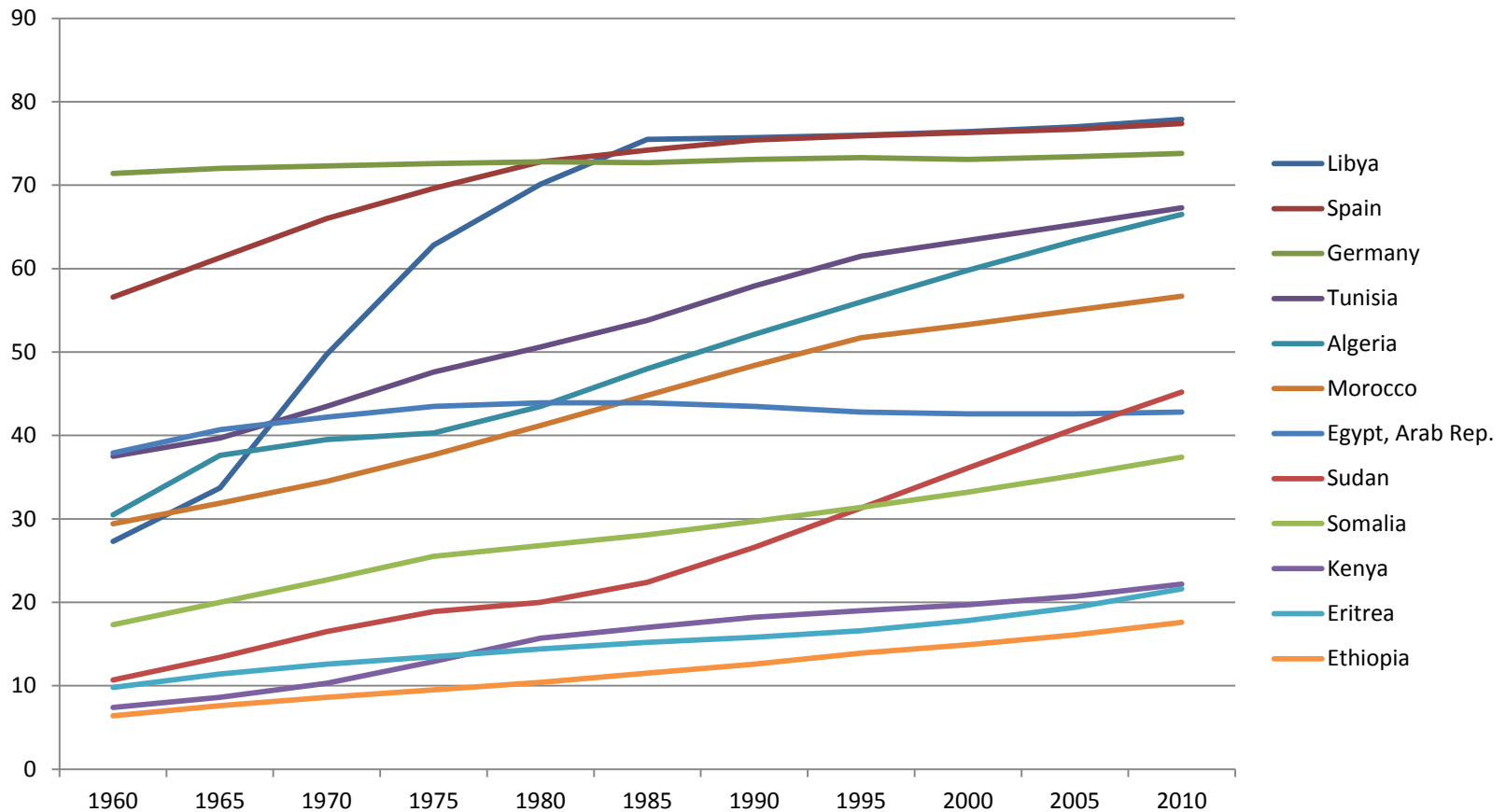
(% gross)



The Contextual Environment: Urbanization

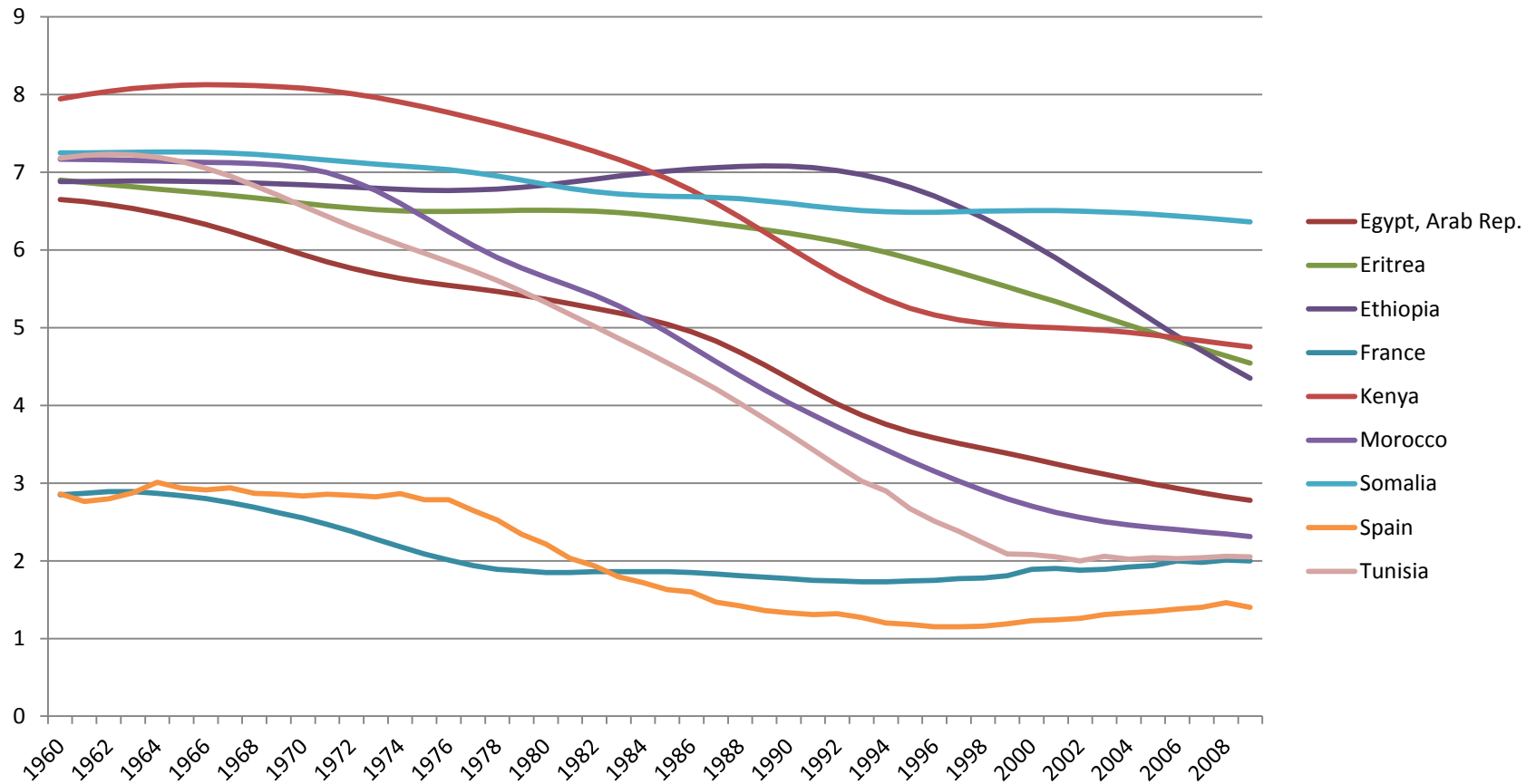
Urban population

(% of total)

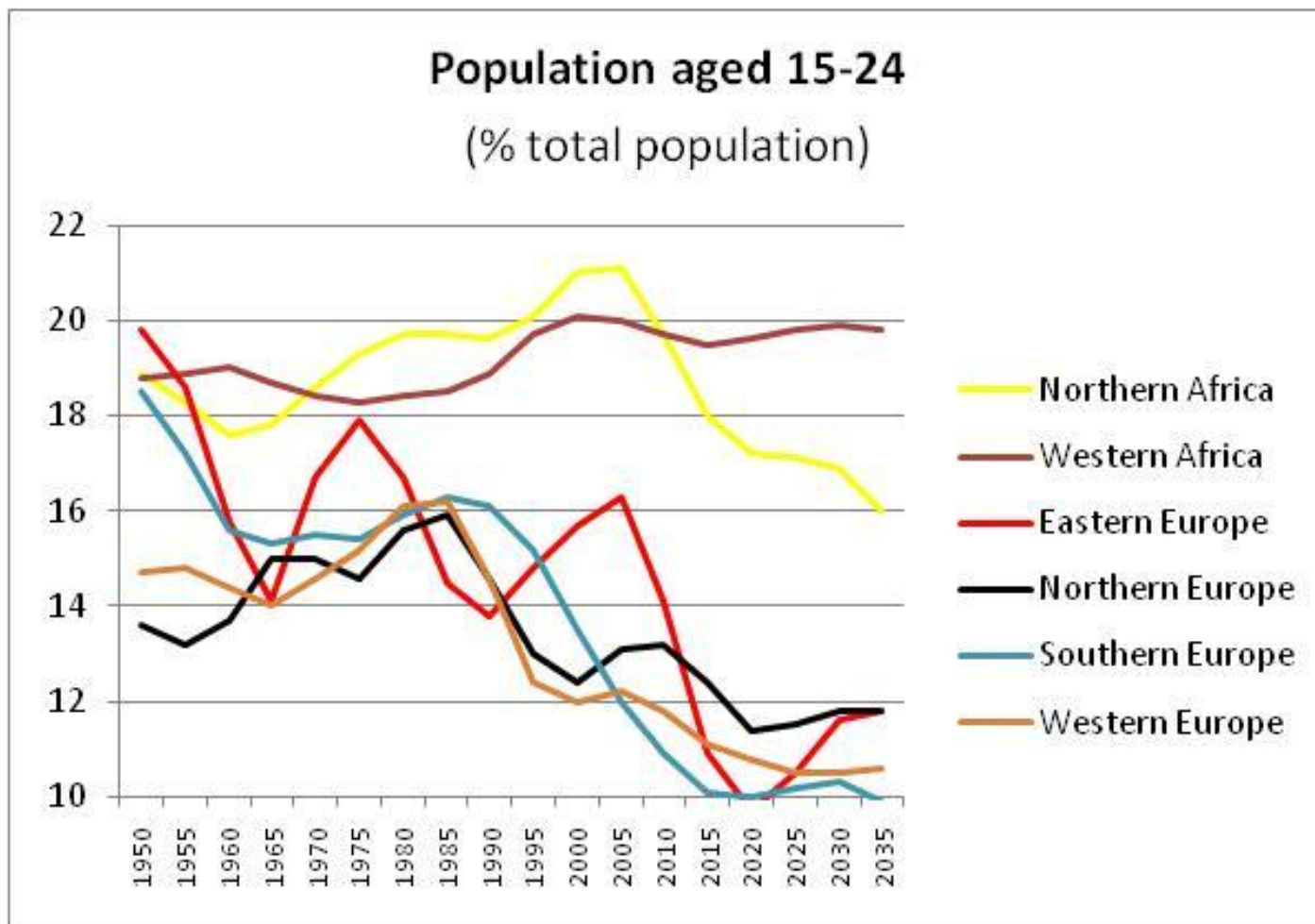


The Contextual Environment: Fertility

Total fertility
(children per woman)



The Contextual Environment: Demographic composition



Assessing what it is that WE KNOW

- Demographic transitions: fertility rates, mortality rates, population structure, youth cohort, dependency ratios
- Increasing literacy and education
- Economic diversification, urbanization and labour structure
- Advances in communication and transportation technology (facilitating access)
 - Effects on migration are uncertain because they are mediated by crucial economic and political *uncertainties*.

- What drives migration ? (*the models, theories*)
 - What will be the causal factors in the future?
 - Will the mechanisms driving migration change in the future?
- But also, how will drivers of migration evolve in the future? (*the context*)
 - What are the *uncertain* factors?
 - Could they be the source of shocks to the system (e.g., Oil Crisis; 9/11; Global Financial Crisis, radical political change)?

What we DO NOT know: Relative uncertainties

Relative uncertainties in Europe

- EU fragmentation and formation of sub-regional blocs
- Economic growth in EU
- Alternative energy, oil dependency, green vs. carbon
- EU monetary policy
- Economic inequalities in EU
- EU expansion
- Population surveillance
- EU labour market regulations
- Democratisation in MENA
- Xenophobia
- Violent conflict in SSA
- Economic growth in MENA
- Water management
- Violent conflict in ex-Soviet bloc

What we DO NOT know: Relative uncertainties

Relative uncertainties in North Africa

- Economic growth in North Africa
- Economic growth in the Gulf
- EU economic and political expansion
- Economic inequality between North Africa and its neighbours
- Violent conflict in North Africa
- Violent conflict in Sub-Saharan Africa
- Changing social norms regarding the role of women
- Social globalisation and cultural change
- Oil scarcity
- Role of China and Russia in Africa
- Tourism and retirement settlement
- Agricultural innovation
- Education and literacy development (reforms)
- Alternative energy
- Food security
- Civil rights and democratic institutions

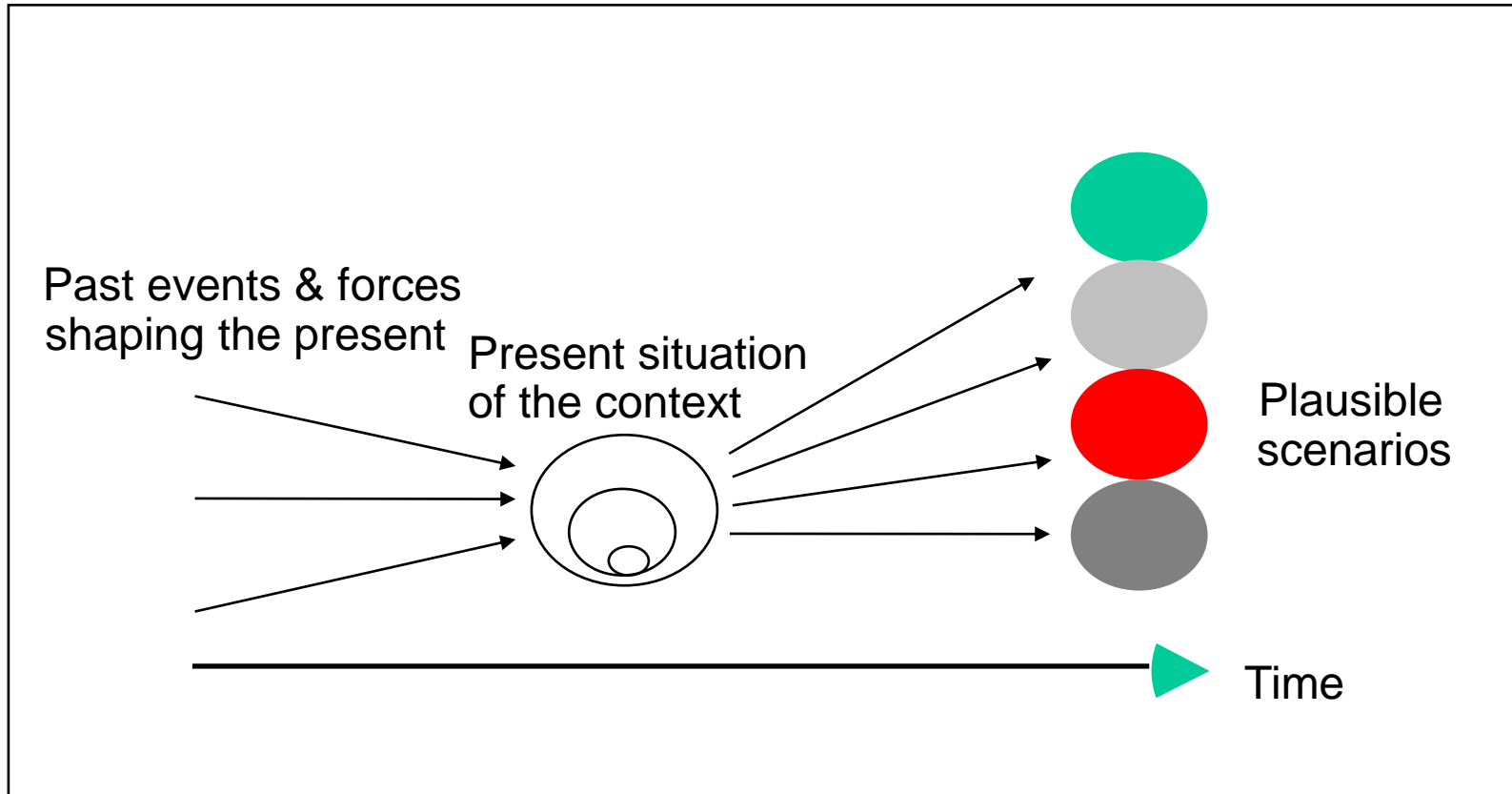
What we DO NOT know: Relative uncertainties

Relative uncertainties in the Horn of Africa and Yemen

- Ethiopia/Eritrea relations
- Regional political integration
- Democratic vs dictatorial governments
- Outcome of Arab Spring
- Shift in powerful global economies
- Global commodity prices
- Global labour demand
- Economic outlook of Gulf countries
- Pastoralism, changes to environment and markets
- Social and gender inequality
- Access to healthcare, family planning
- Growth of tertiary education
- Strength of civil society
- Presence of international organisations
- Agriculture, land fertility and water management technologies
- Natural resources (oil, gas, water)

- **Breaking down the uncertainties**
 - What is known about them (secondary research)?
 - Ex. Agricultural innovation and water access in North Africa
 - New technologies to reduce water consumption introduced
 - Subsistence agriculture diminishing in importance
 - Agricultural industry for distribution of Europe growing – stress on water for local population
 - How are they expected to change (experts in these fields)?
 - What are possible outcomes?
 - In what circumstances are these outcomes expected?
 - Using logic and intuition to assess:
 - What are the possible interactions with other factors and the possible outcomes?

Overview of scenario production framework



Slide's author: Rafael Ramirez

Evaluating the relative importance and impact

*Our ignorance
on how issue
plays out
(greatest lack of knowledge
/level of unfamiliarity)*

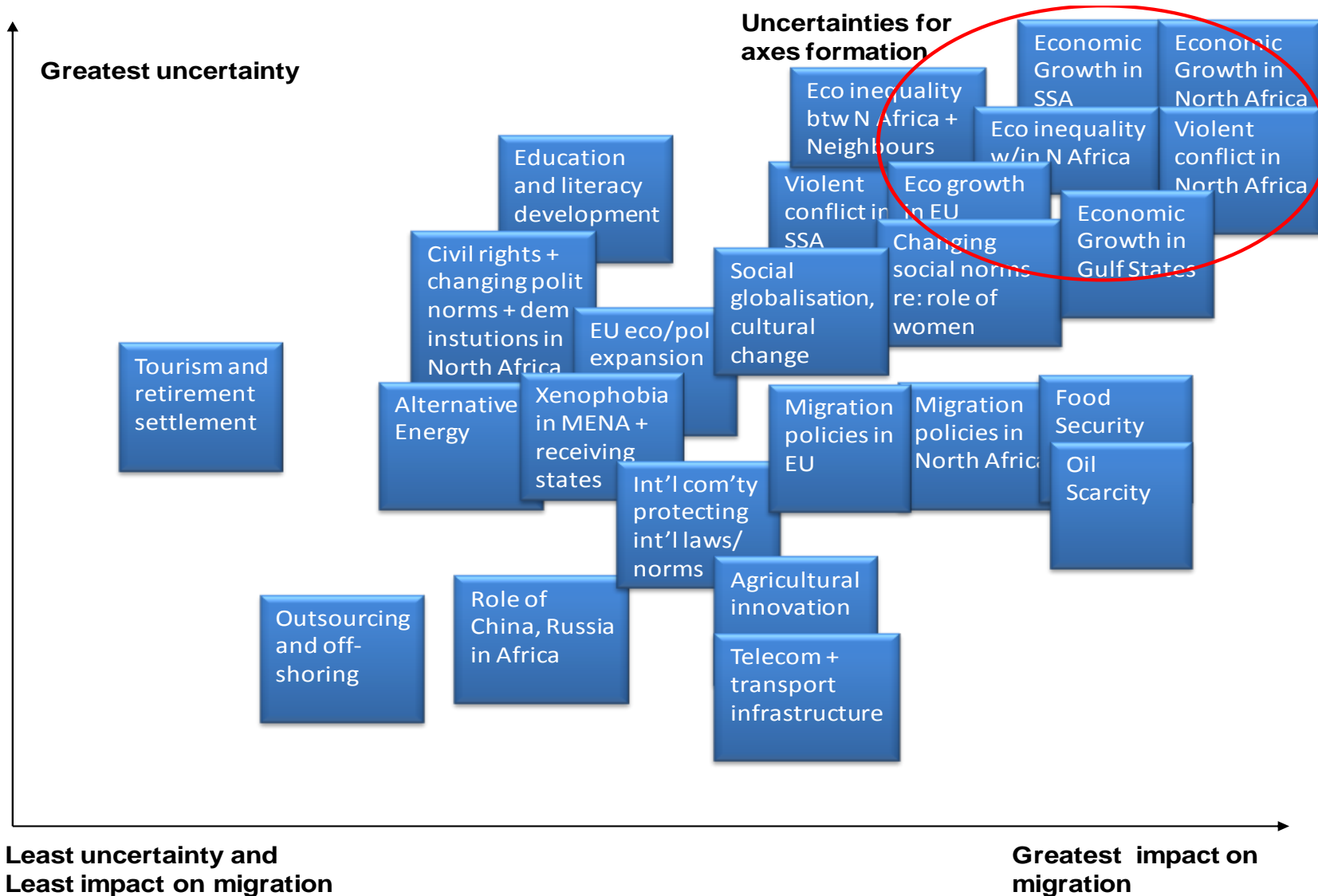


Select the two uncertainties that are most uncertain + will have the most impact on migration for the scenario axes

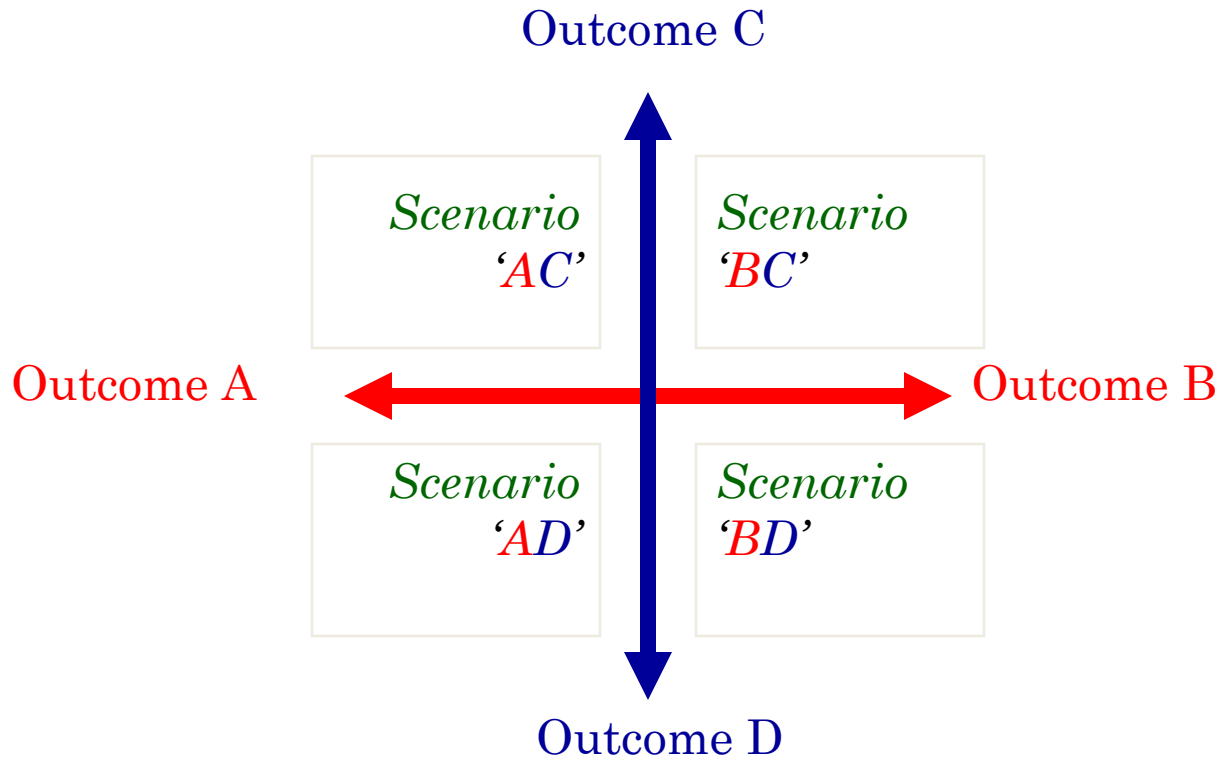
*Least uncertain and
Least impact on migration*

*Greatest
migration impact*

Relative uncertainties for North Africa



Creating the scenario matrix



Building scenarios with relative uncertainties

Political conflict and instability
in North Africa



Economic
decline in
North Africa



Economic
growth in
North Africa

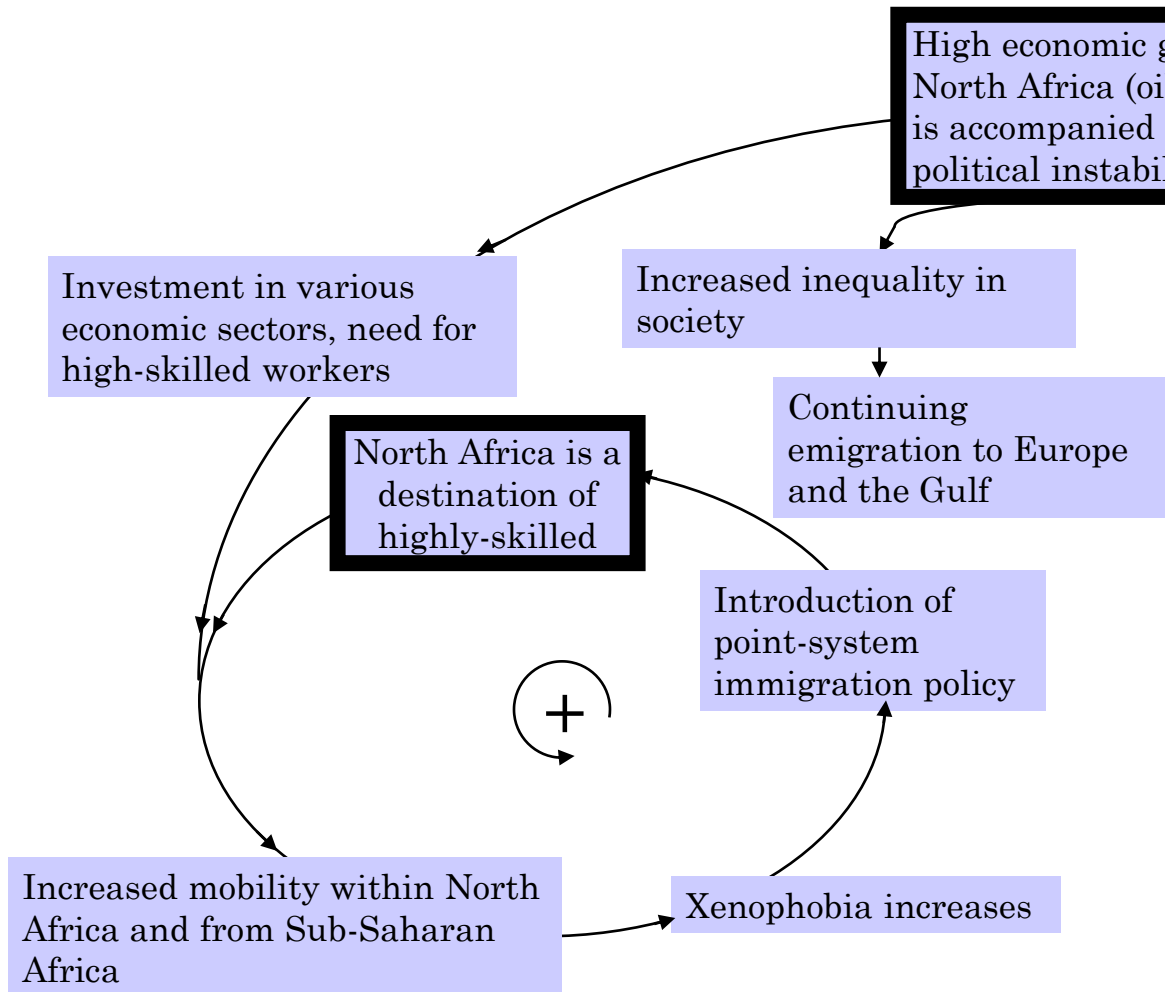


Scenario 4 – Blooming Desert



Relative peace in North Africa

Scenarios and feedback processes



- Evolution of the story over time
- Forces and events influence each other
- Using logic and intuition, scenarios are tested for coherence and consistency

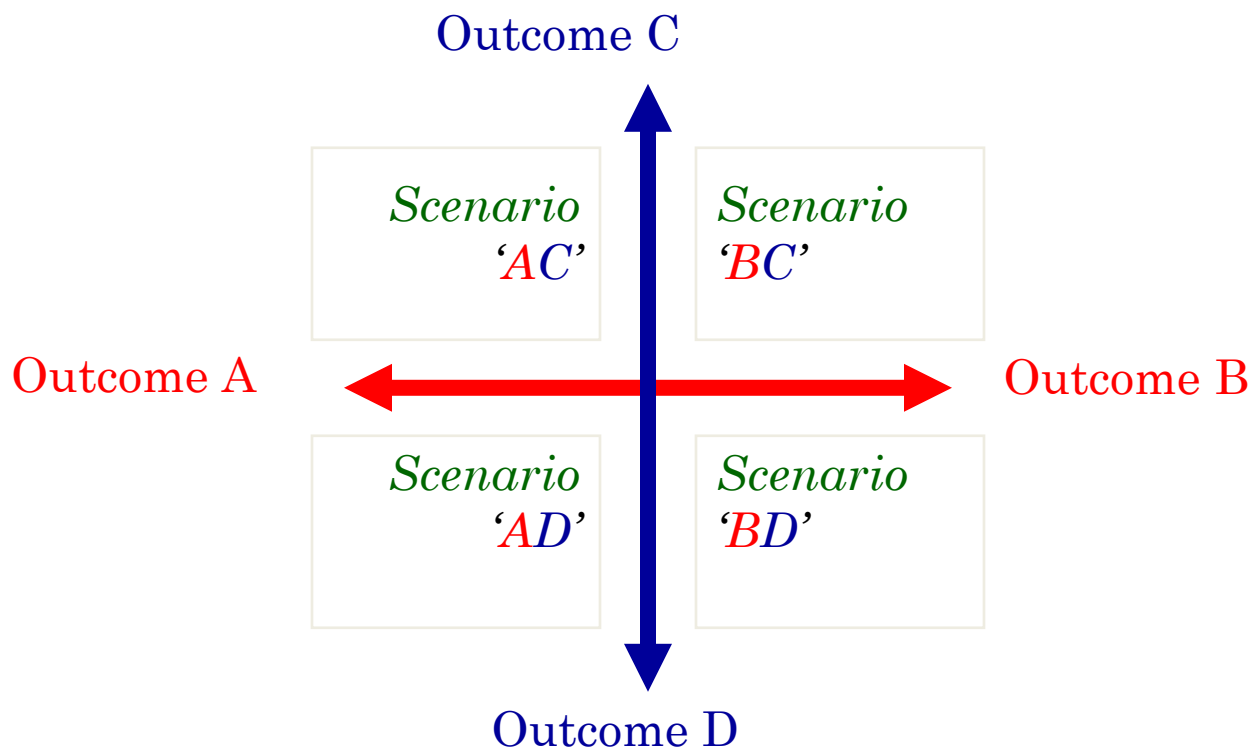
A short scenario story

In 2035, a combination of **high economic growth** and **high levels of political conflict and instability** characterise North Africa. The discovery of significant oil resources in Morocco and other Maghreb countries in the 2010s and 2020s have boosted economic growth and public investment. Despite such growth, social and economic inequalities are deepening within North African societies. There is increasing competition among ethnic and class groups about the control of natural resources, which has stalled processes of democratization and led to the emergence of a new, autocratic ruling class, whose power is necessarily contested through regular popular uprisings. State politics in North Africa have been characterised by power struggles, in which political actors seek political office to gain control over state-run natural resources.

What would this mean for migration in North Africa? Sub-Saharan Africa?
Europe?

Creating YOUR scenarios

Using the two most important and most unknown uncertainties you have been given for Europe, your group writes a brief story to describe what has happened and what is the situation in Europe in 2035



Reporting your scenarios

- Please select one or two persons who will report the scenario back to the plenary
- Feel free to find creative ways to present your story, for instance:
 - You could be a reporter describing an event occurring in 2035 with background information
 - (e.g., the violent episodes that occurred today, July 14, 2035 shock us, but they should not surprise us. The situation has been in the making for the past 20 years....)
 - You could act as two friends discussing some developments/events who provide their reflections
 - You could be a policy advisor providing evidence for advice on migration policy today in light of what is bound to occur in the next 24 years

Creating scenarios

GROUP WORK UNTIL 12.00

Important questions for the future of migration

- Technology will bring change, but it's unclear how it will affect our lives
 - What is the future of alternative energy?
 - Will innovative technology allow important changes in production technology?
 - How will these affect future labour force needs?
 - How will future ICT affect our lives? Could migration be further facilitated or possibly avoided?
 - Will increased technology used at the borders prevent or facilitate migration?

Important questions for the future of migration

- Population ageing and declining population growth are certain, but:
 - What will this mean for native workers in Europe? What role for the trade unions? How will these changes affect international migration?
- Environmental change is anticipated, but:
 - To what extent? How rapid and severe? To what extent will populations at risk be able to adapt? Will movements be internal and temporary?
- Cultural changes will continue as always, but:
 - What of xenophobia? How important will religion be in the future? Will xenophobic attitudes act as greater repellents of migrants? Will a 'culture of migration' become the norm in the society of the future?

Conclusions on the scenario methodology

- Scenario work helps us think in the long-term with a free and clear mind as we are not in an ‘emergency mode’
- Looking closely at uncertainty and thinking creatively about how stakeholders may react helps us expand our ‘set of options’ for future behaviour

Conclusions on the future of migration

- Migration is a complex and multi-dimensional phenomenon, part of social processes and social change
 - Important uncertainties include not just the economy, labour markets and policies, but also political systems, technology, environment, international relations, cultural factors

- Migration policy is only one of the many factors that affect migration – both today and in the future
 - Attention must be paid to non-migration policies (e.g. labour market structures, welfare provisions in origin and destination countries, etc.)