



What is Good and What is Bad in MENA Pension Systems

Regional Pensions and Social Insurance
Conference

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Assessment Criteria of a Pension System

Primary goals: To provide adequate, affordable, sustainable and robust old-age income

- Adequate refers to both the absolute and relative level (i.e. poverty alleviation and income replacement)
 - Affordable refers to the financing capacity of individuals and the society
 - Sustainable refers to the financial soundness of the scheme, now and in the future
 - Robust refers to the capacity to withstand major shocks, including those coming from economic, demographic and political risks
- **Secondary goals: To create developmental effects**
by
- minimizing negative impacts (e.g. labor market)
 - leveraging on positive impacts (e.g. financial market development)



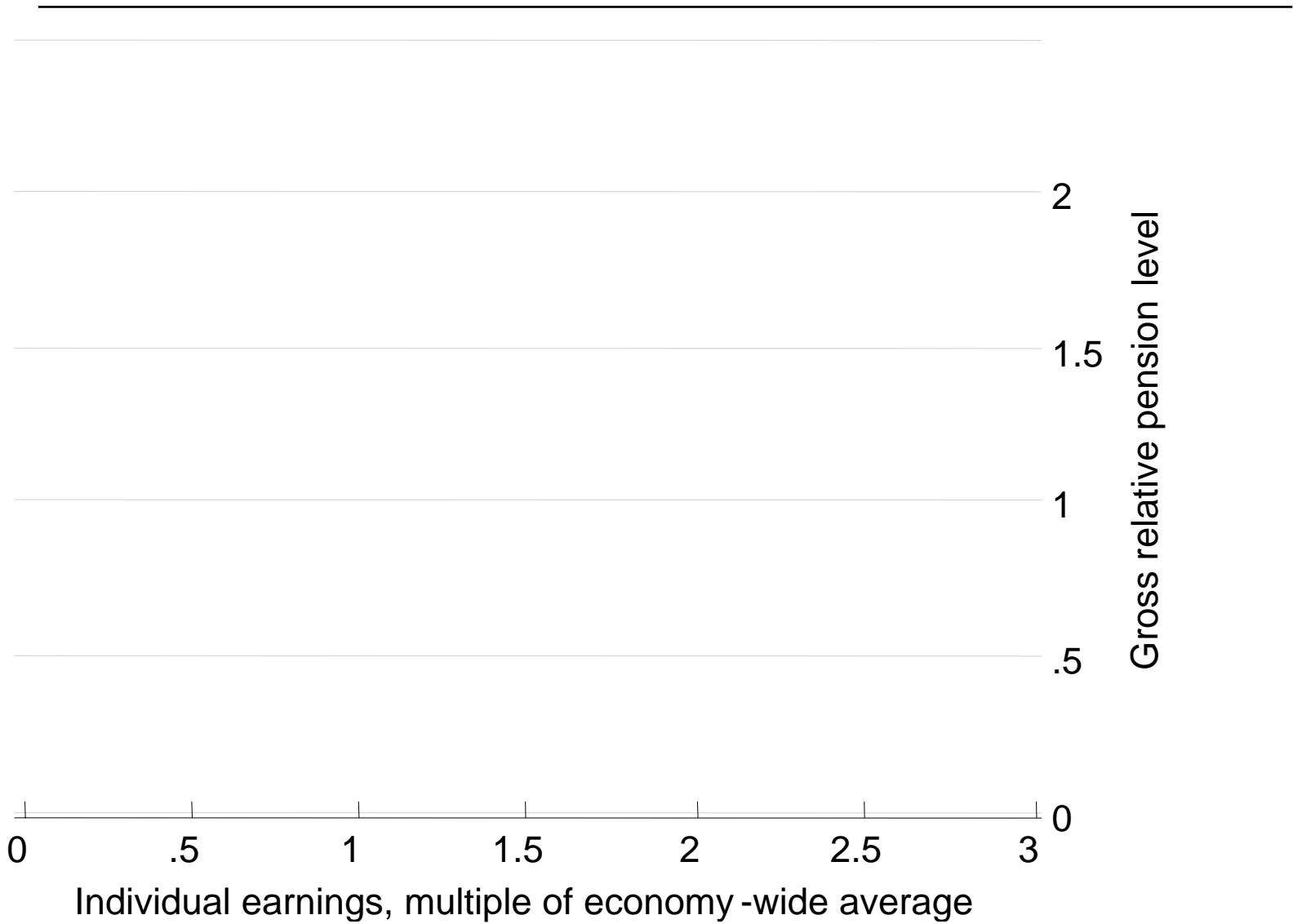
Adequacy

- Absolute Adequacy: an **absolute** measure of living standards.
 - individual pension entitlement as a proportion of economy-wide average earnings.
 - **pension level.**
- Relative Adequacy (insurance): a **relative** measure of living standards.
 - individual pension entitlement relative to individual earnings when working.
 - **replacement rate.**

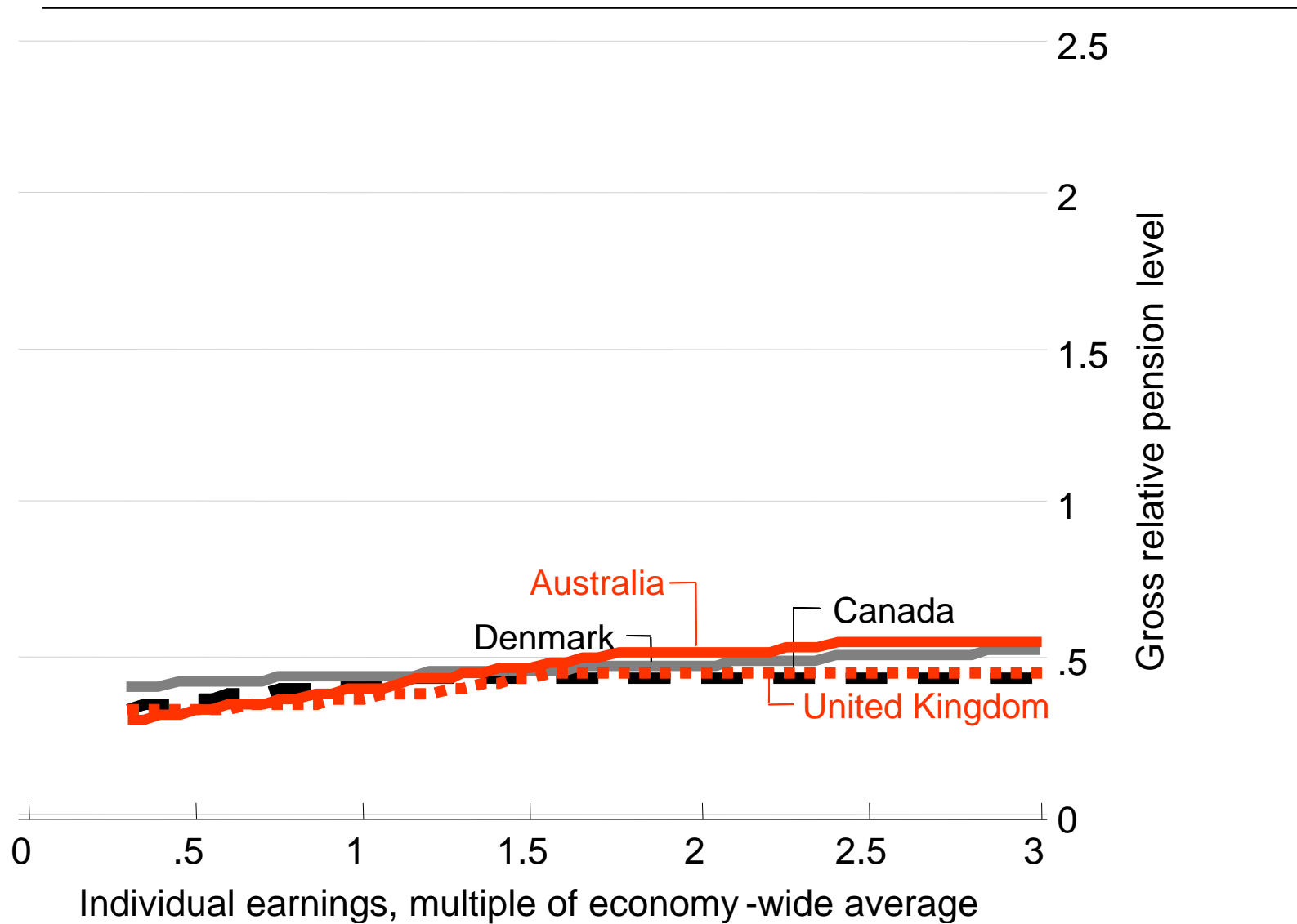


Review of international experiences

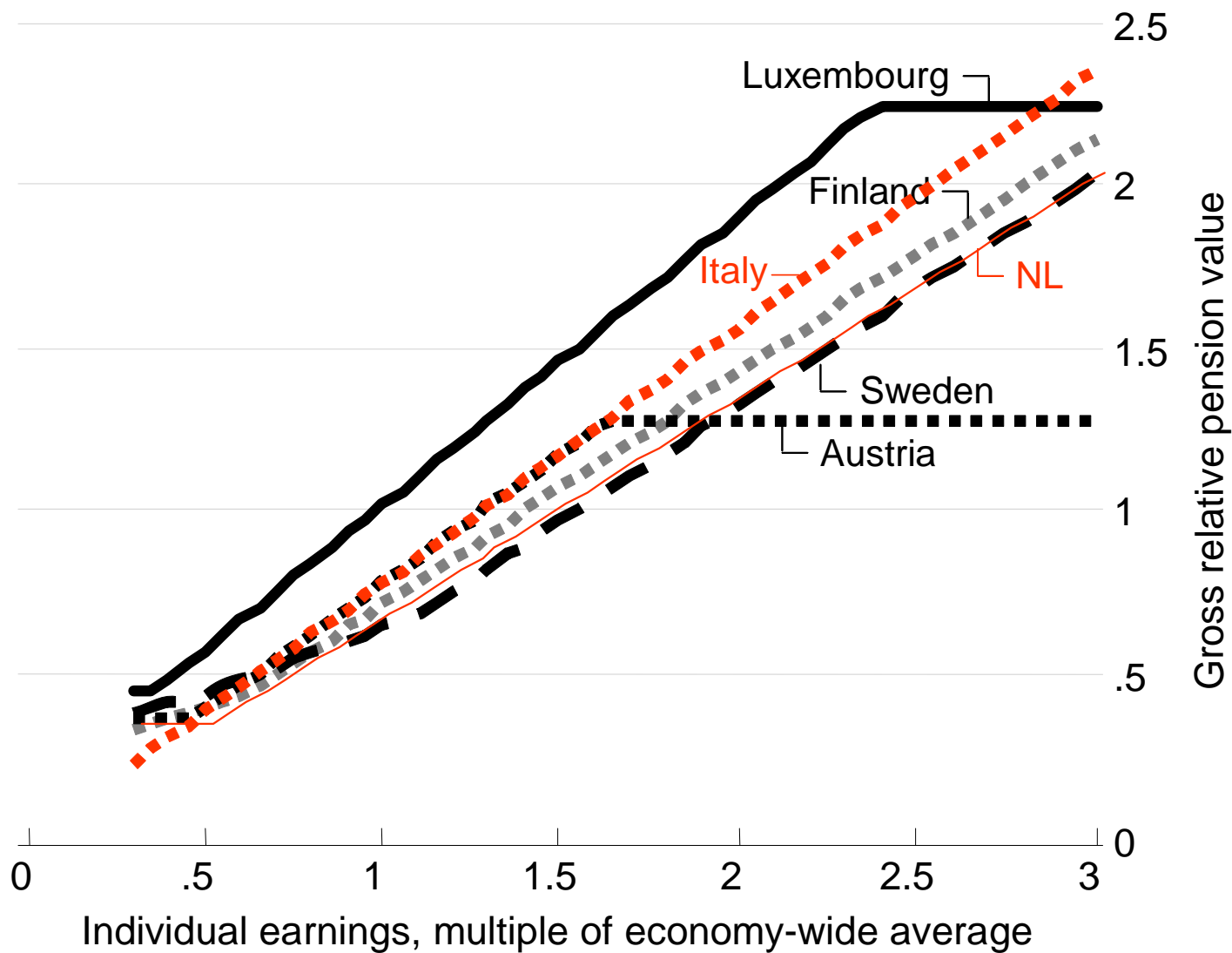
- Different degrees of emphasis on the alternative objectives of absolute **adequacy** and **relative adequacy (insurance)**.
- Illustrate using:
 - Industrialised (OECD) countries.
 - Middle East/North African countries.



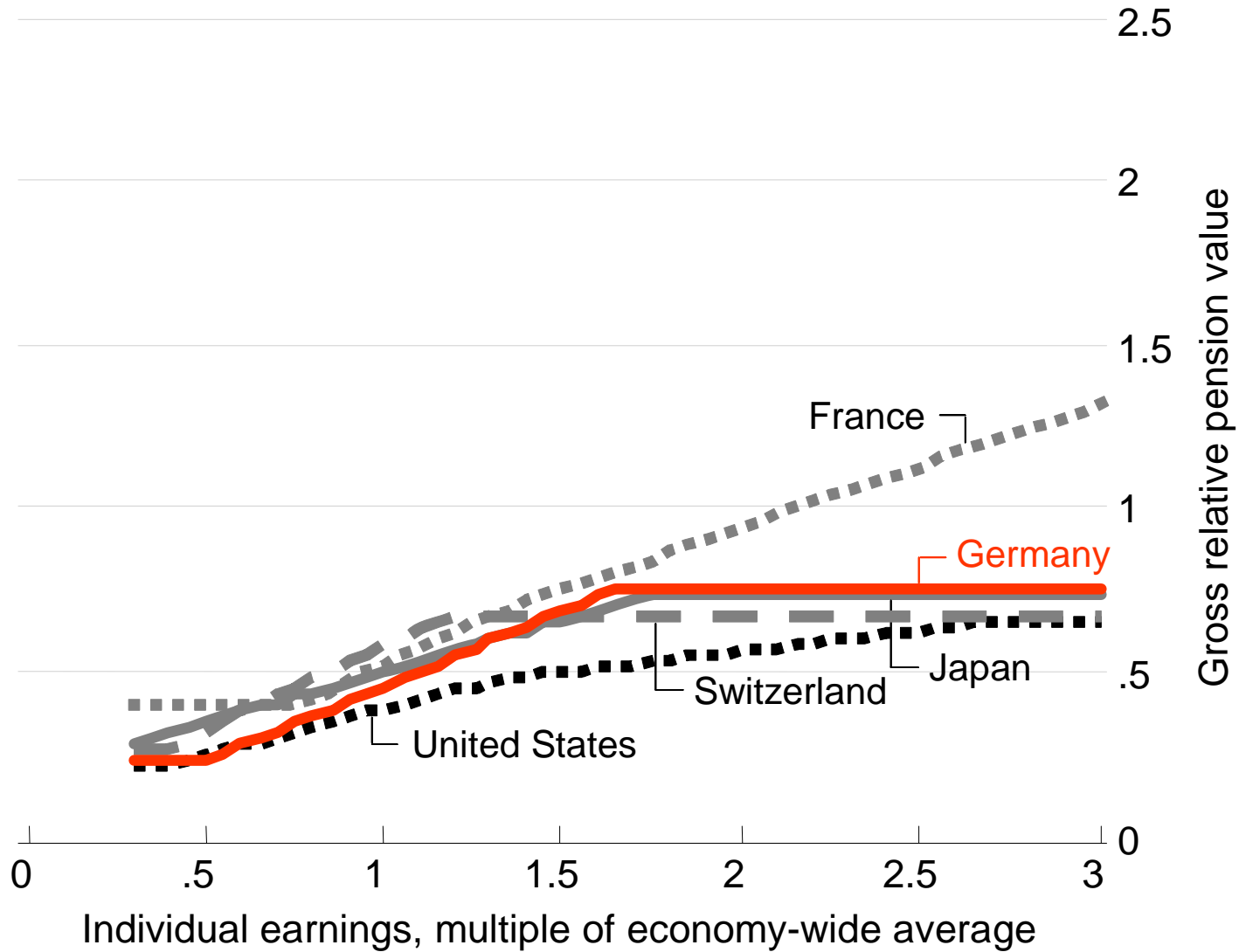
OECD (1)



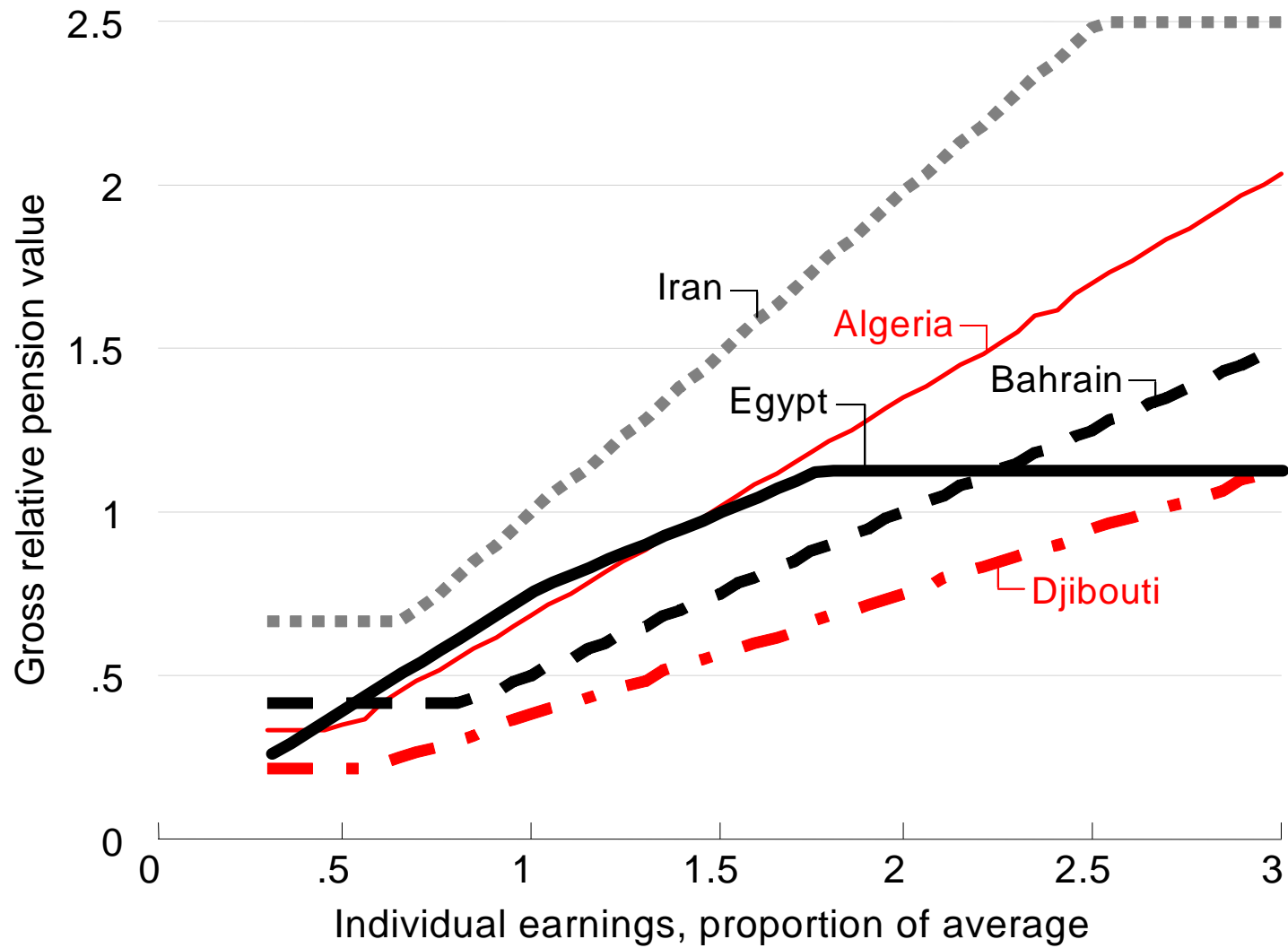
OECD (2)



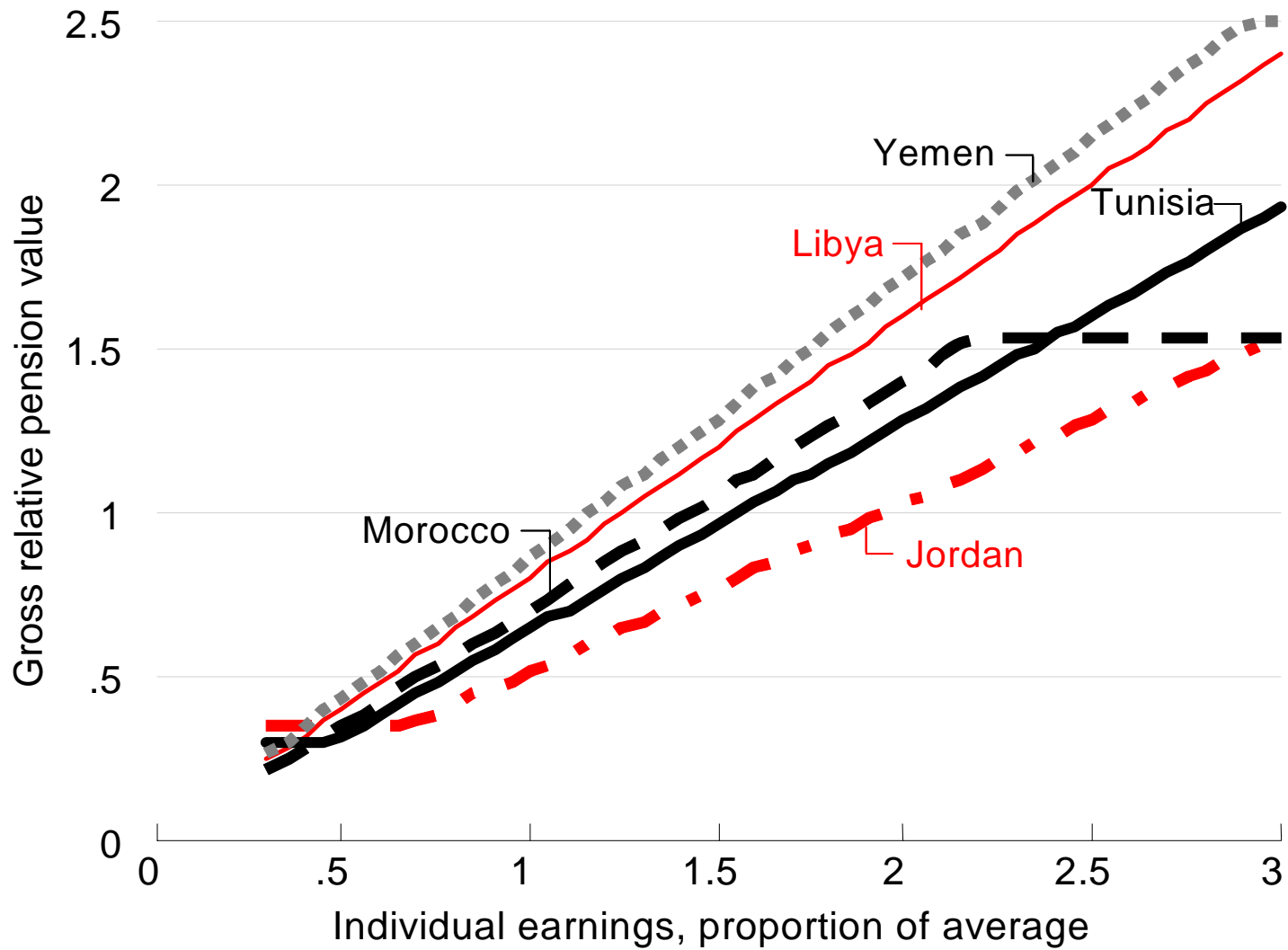
OECD (3)



MENA (1)



MENA (2)

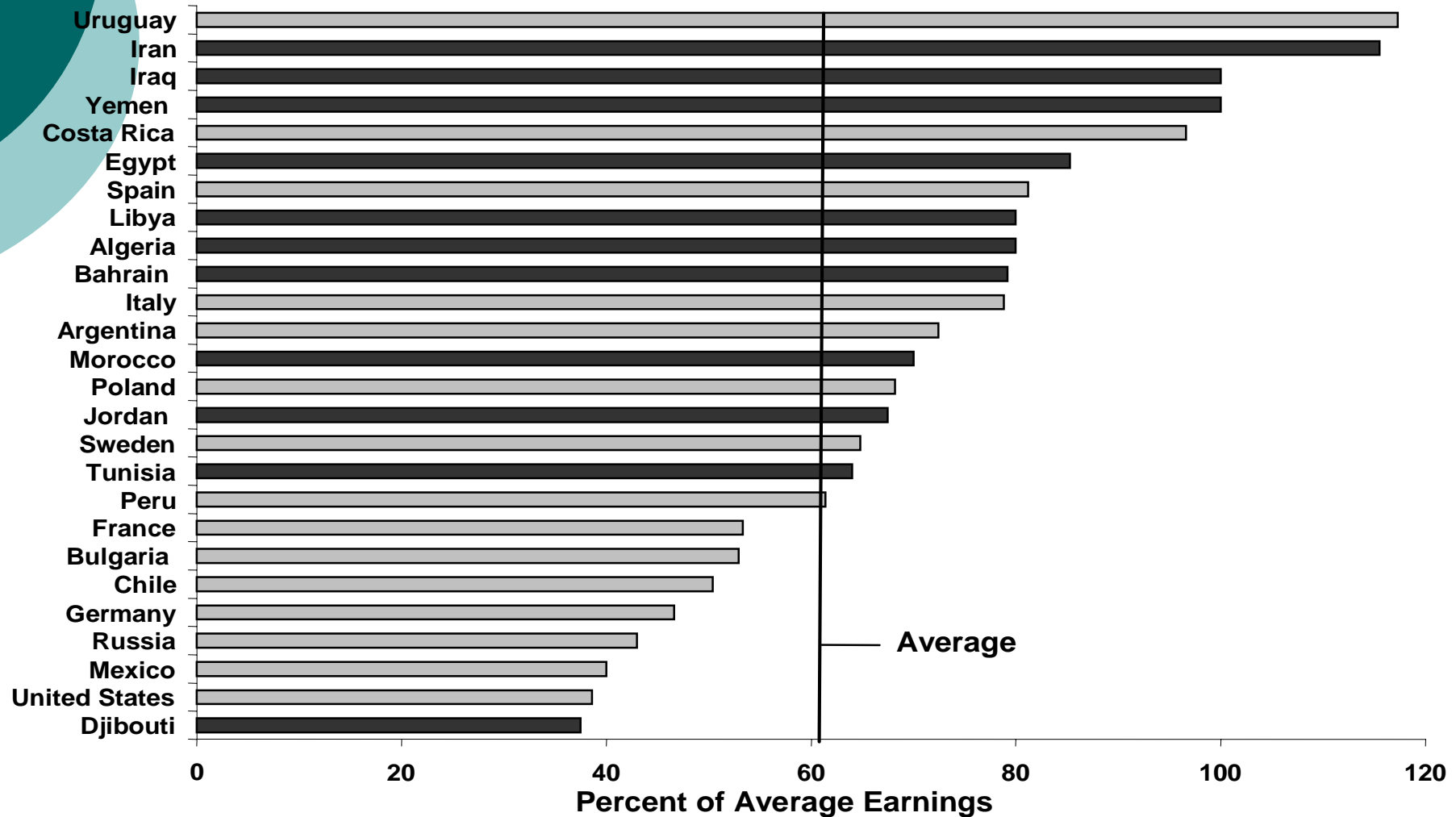




What are the parameters that affect the mandate of the system?

- Targeted replacement rate for average full career worker:
 - Somebody working 40 years.
- Basic pension.
- Ceiling on pensionable earnings.

Choices regarding the replacement rate for the average full career worker

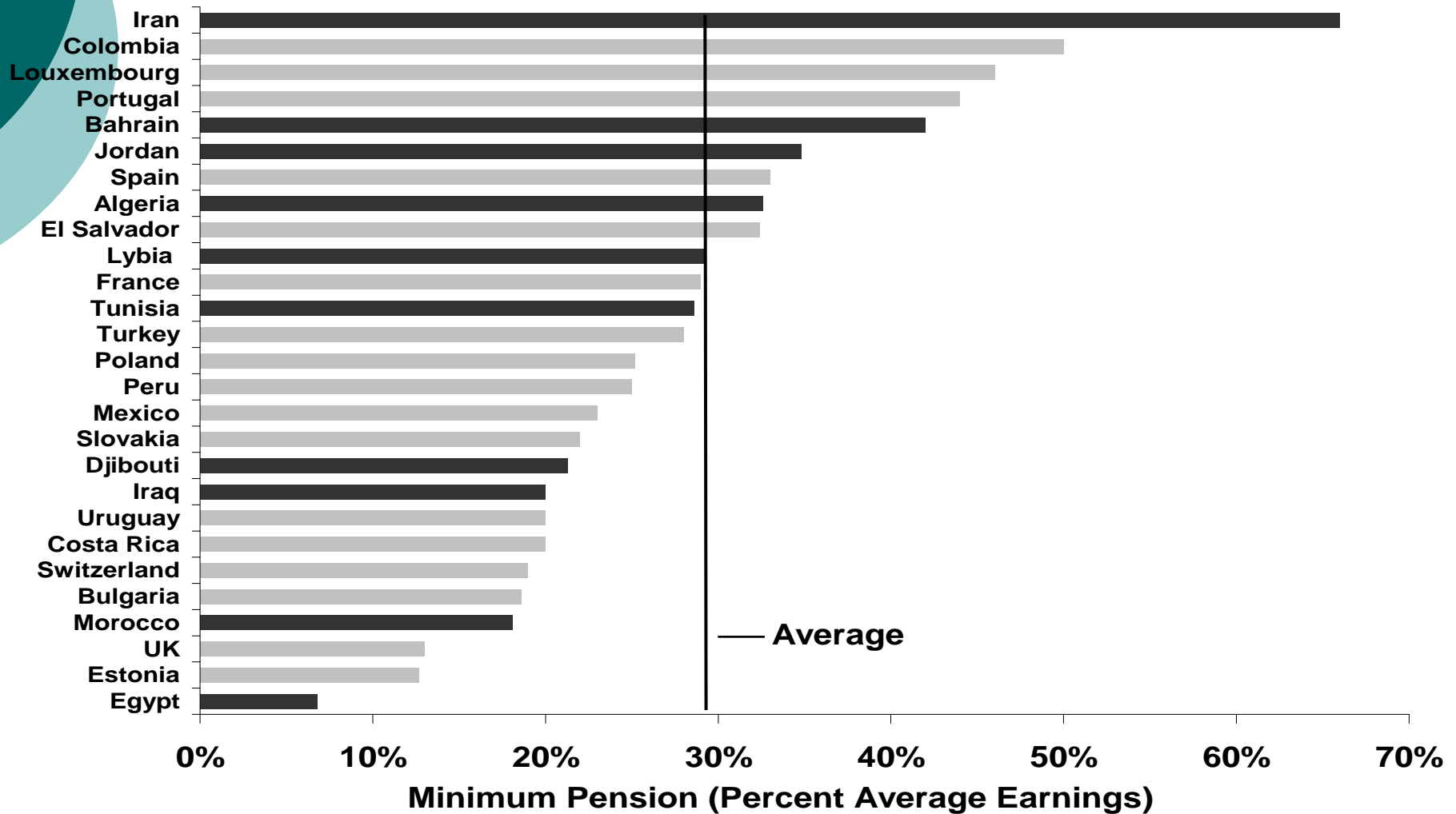




What factors influence choices?

- Standard of living after retirement can be maintained with an 80% replacement rate?
 - Lower work related expenditures, education expenditures, housing expenditures.
- Share public sector = 50%?
- Responsibility of the individual = 30%?
- Choices reflect social preferences; but there are fiscal implications.
- No reason for the government to be the only source of income for retirement.

Choices regarding the minimum pension





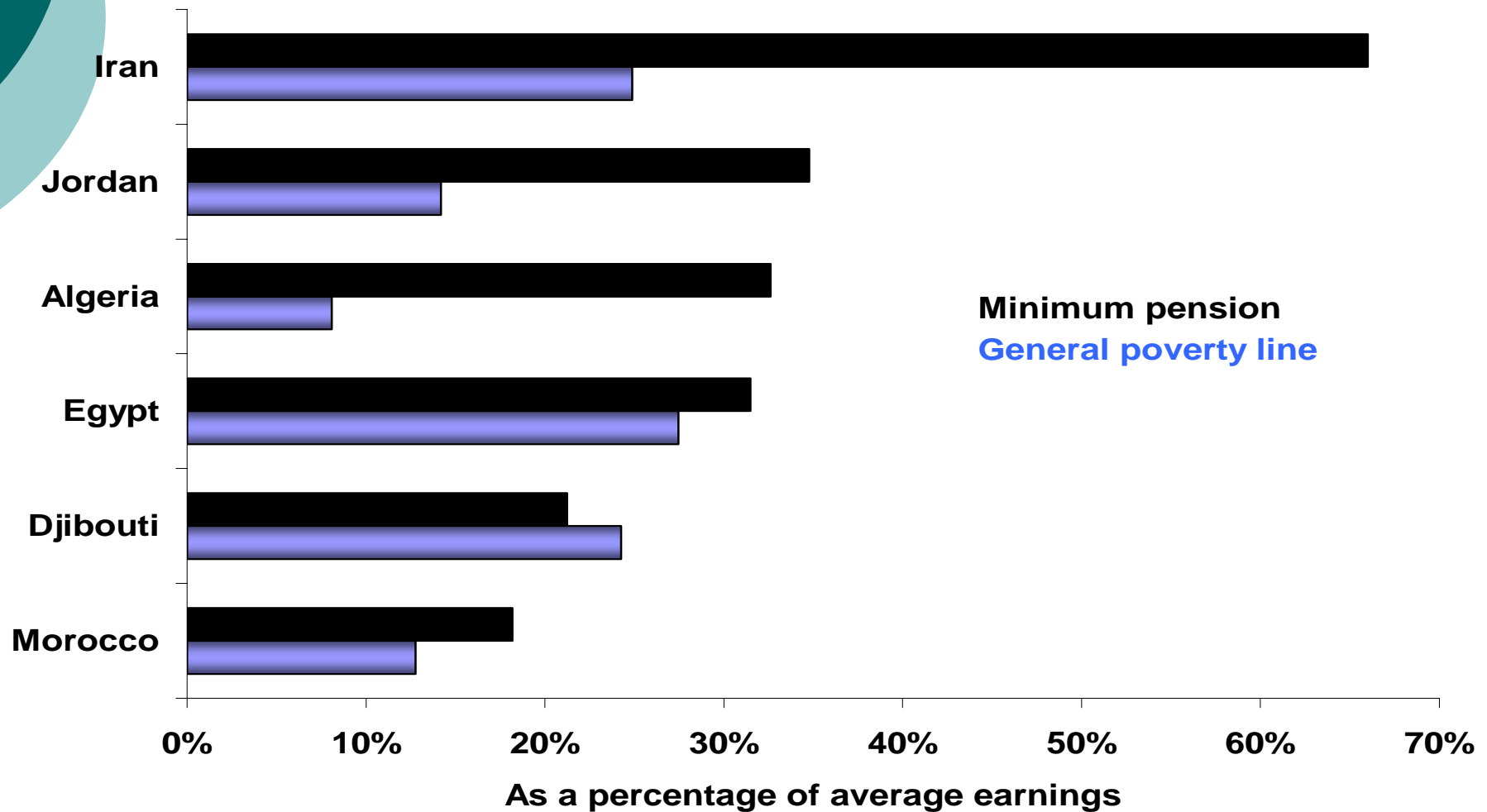
Which factors affect choices?

Level:

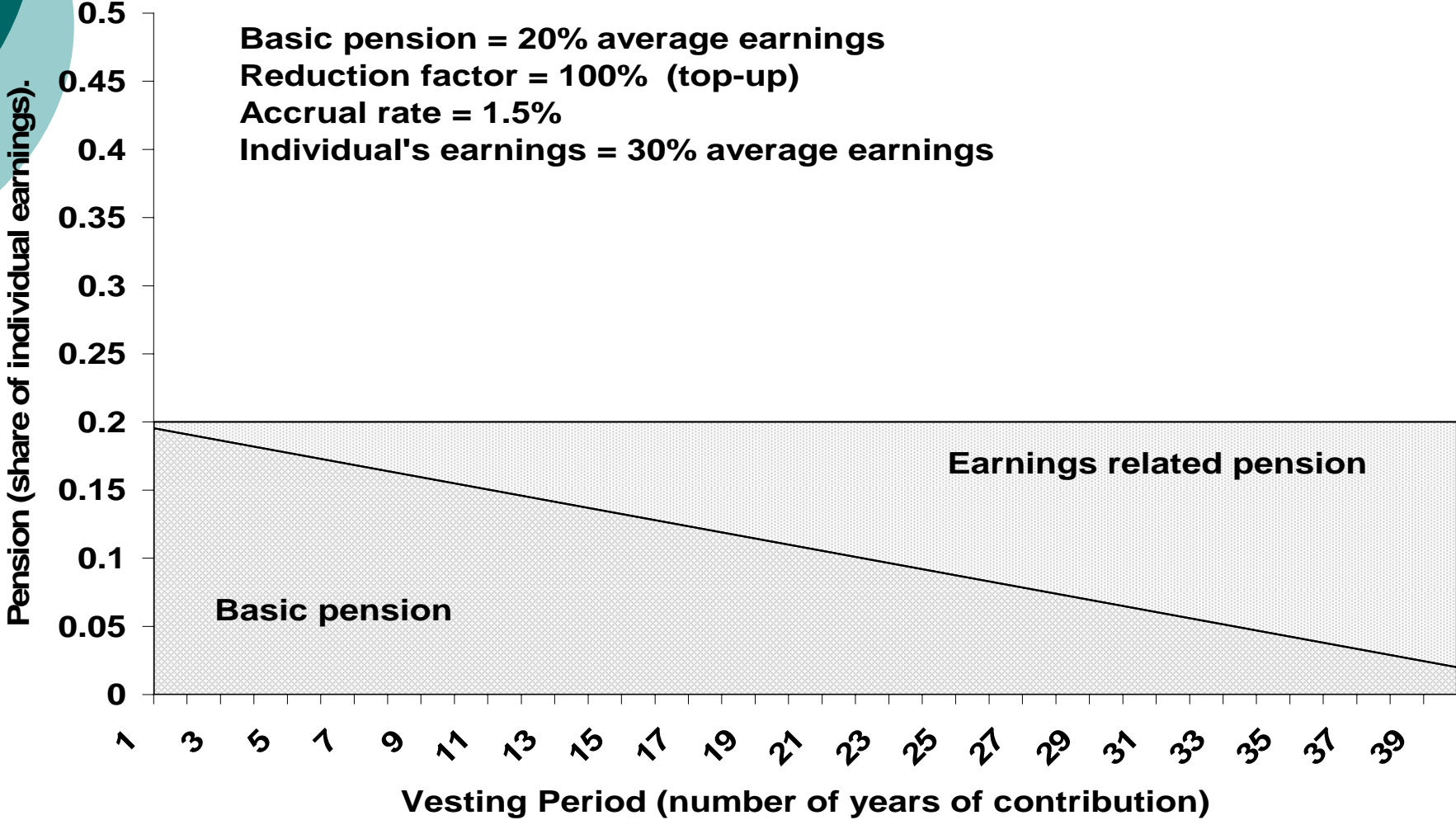
Poverty line is the reference point.

- Should be below the minimum wage.
 - Take into account informal social protection mechanisms (the role of the family).
 - Choice needs to be affordable.
- Design affects incentives to contribute and costs
 - Flat pension (universal or means tested).
 - Top-up.
 - Financing:
 - General revenues;
 - Tax on labor.

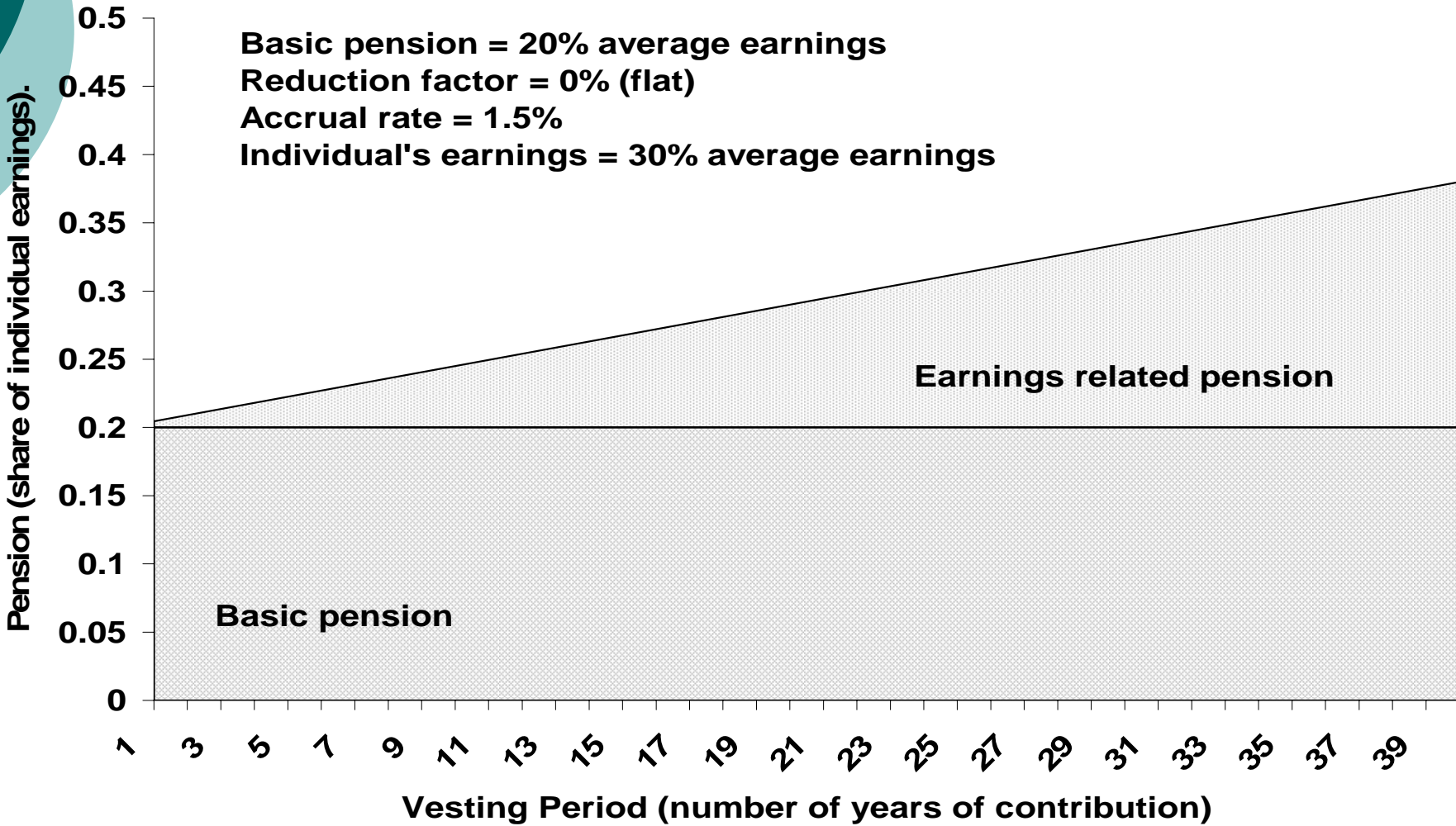
Poverty line and basic pension



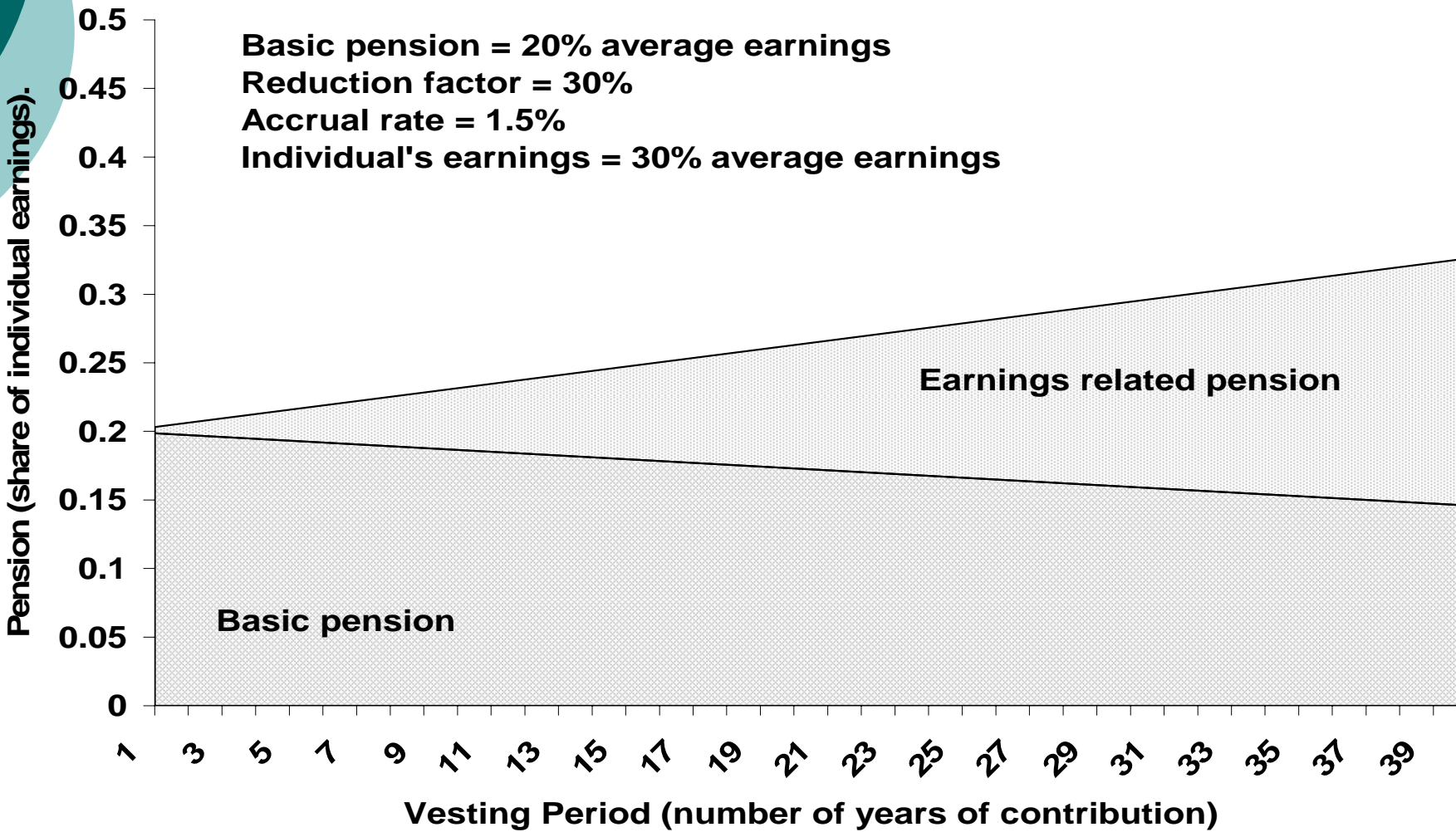
Top-up pensions can reduce incentives to contribute (implicit 100% tax)



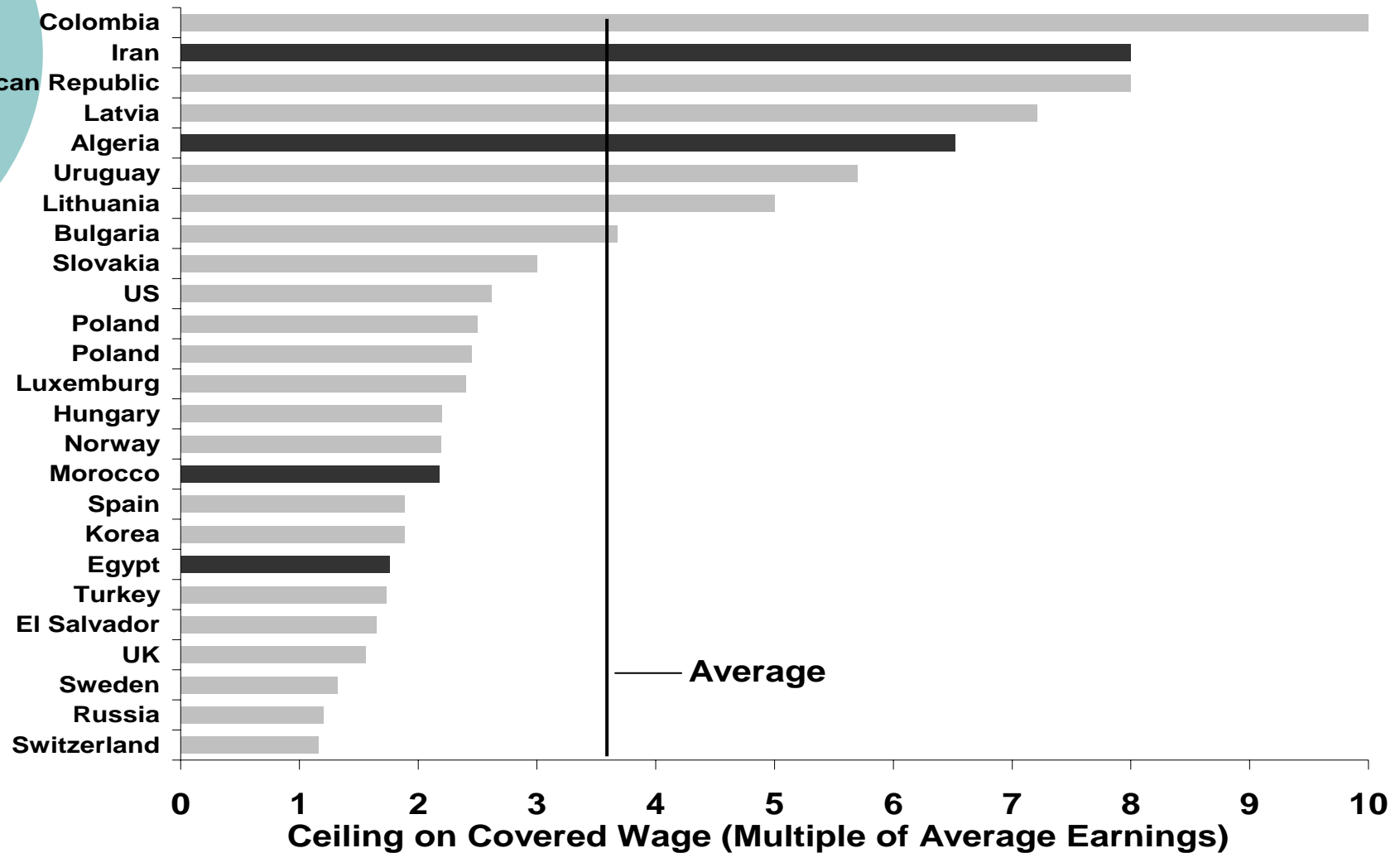
Flat pension solves incentives problems but can be expensive; means test also expensive



Compromise: flat pension means tested as a function of contributory pension



Choices regarding the ceiling





How to choose the ceiling?

- High ceiling reduces incentive for high income workers to diversify savings for retirement:
 - Inefficient diversification of risks.
- High ceiling means higher contributions but also higher liabilities:
 - Financial considerations should not influence the choice.
- Very few individuals earn more than 3 times average earnings.
 - A ceiling above 3 does not have much effect.
- Ceiling should not be defined in nominal terms or as a function of the minimum wage.



Affordability and sustainability

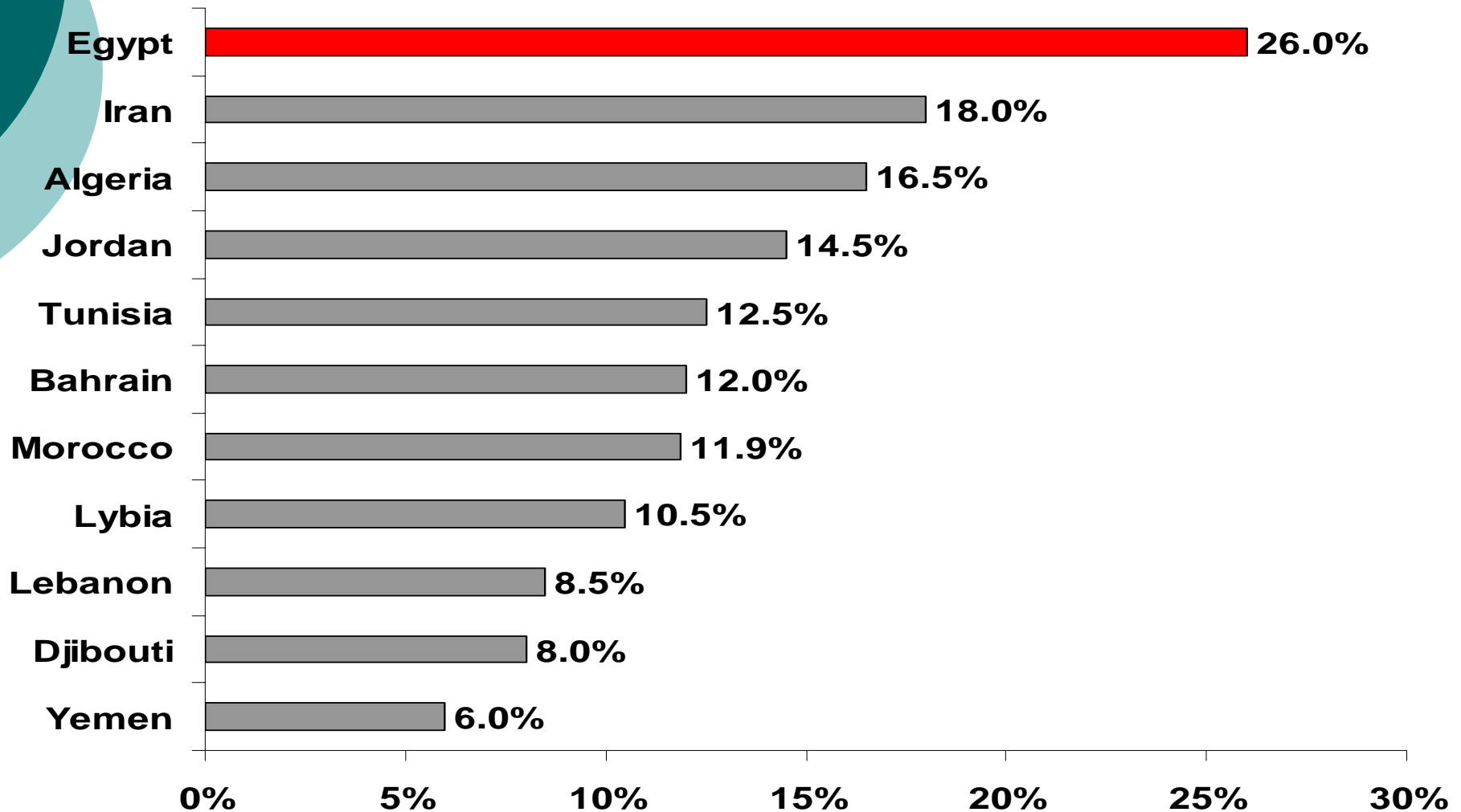
What is the difference?



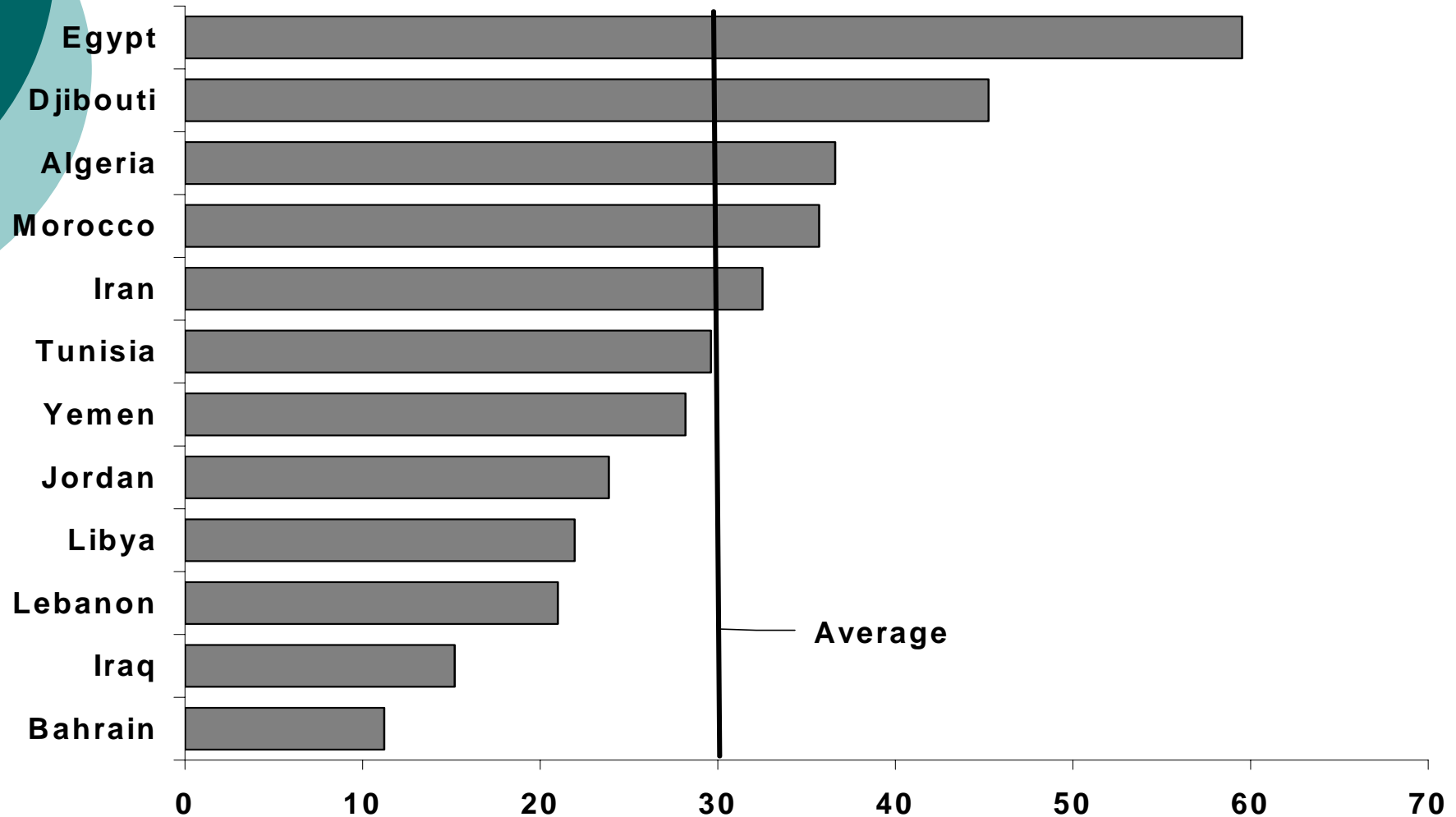
The criteria

- A pension system can be financially sustainable (revenues = expenditures) but not affordable.
- A sustainable system can be financed out of three sources:
 - Pay-roll taxes and social security contributions.
 - General revenues.
 - Revenues from investments.
- Economy needs to be able to afford the fiscal burden:
 - If general revenues are used, ask questions about efficiency and equity.

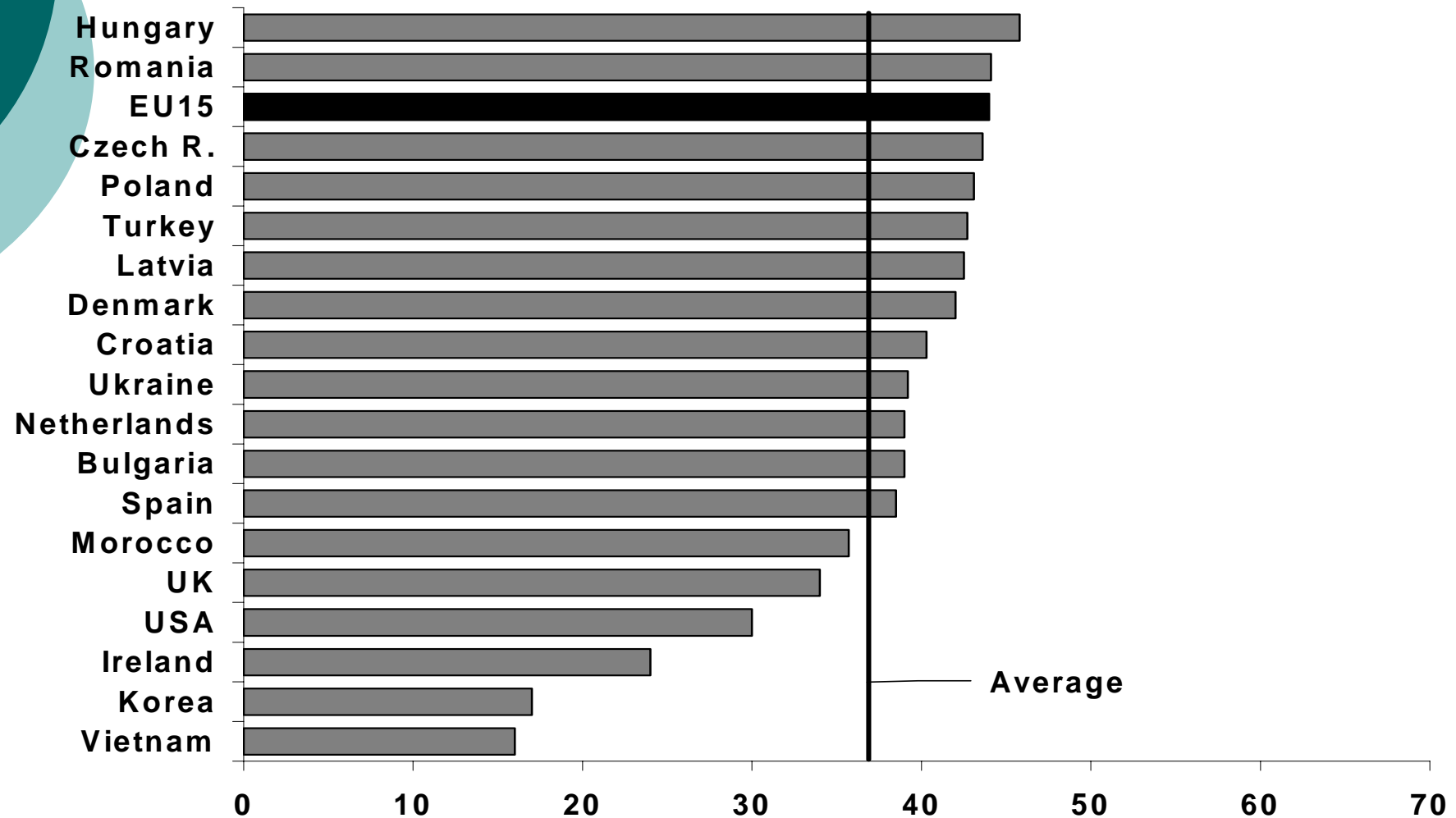
The contribution rate is not the only limiting factor...



The relevant measure is the “tax wedge” ...



... which is already high and
can reduce employment levels



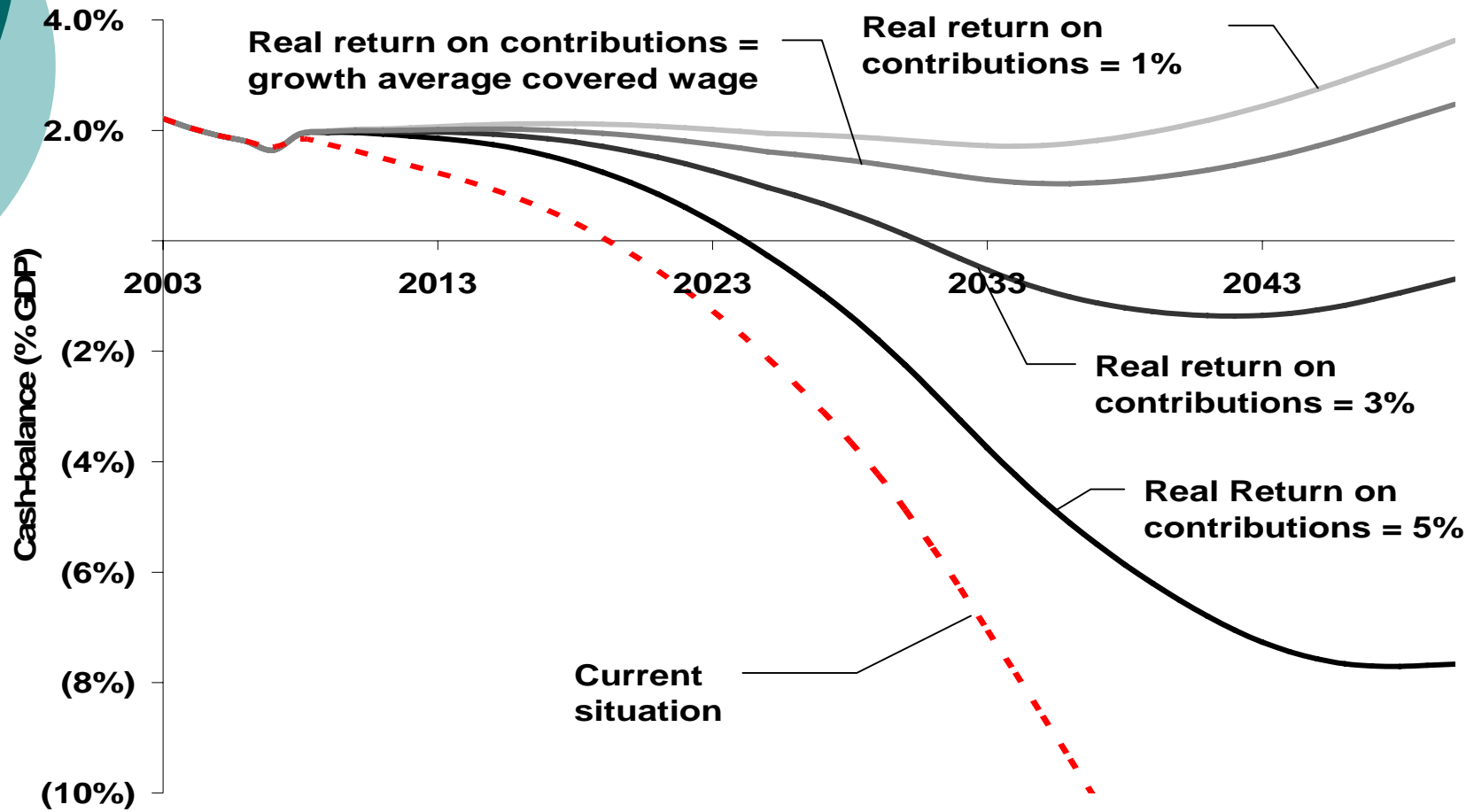


How to design an affordable and sustainable pay-as-you-go system?

Financial sustainability of DB-PAYG systems depends on the Implicit Rate of Return (IRR) on contributions:

- Sustainable IRR depends, in part, on the growth rate of covered wages (and the rate of return on reserves if partially funded).
- For pure pay-as-you-go systems a good proxy is the long-term growth rate of the economy $< 3\%$ per year).

Proof of the existence of the sustainable IRR

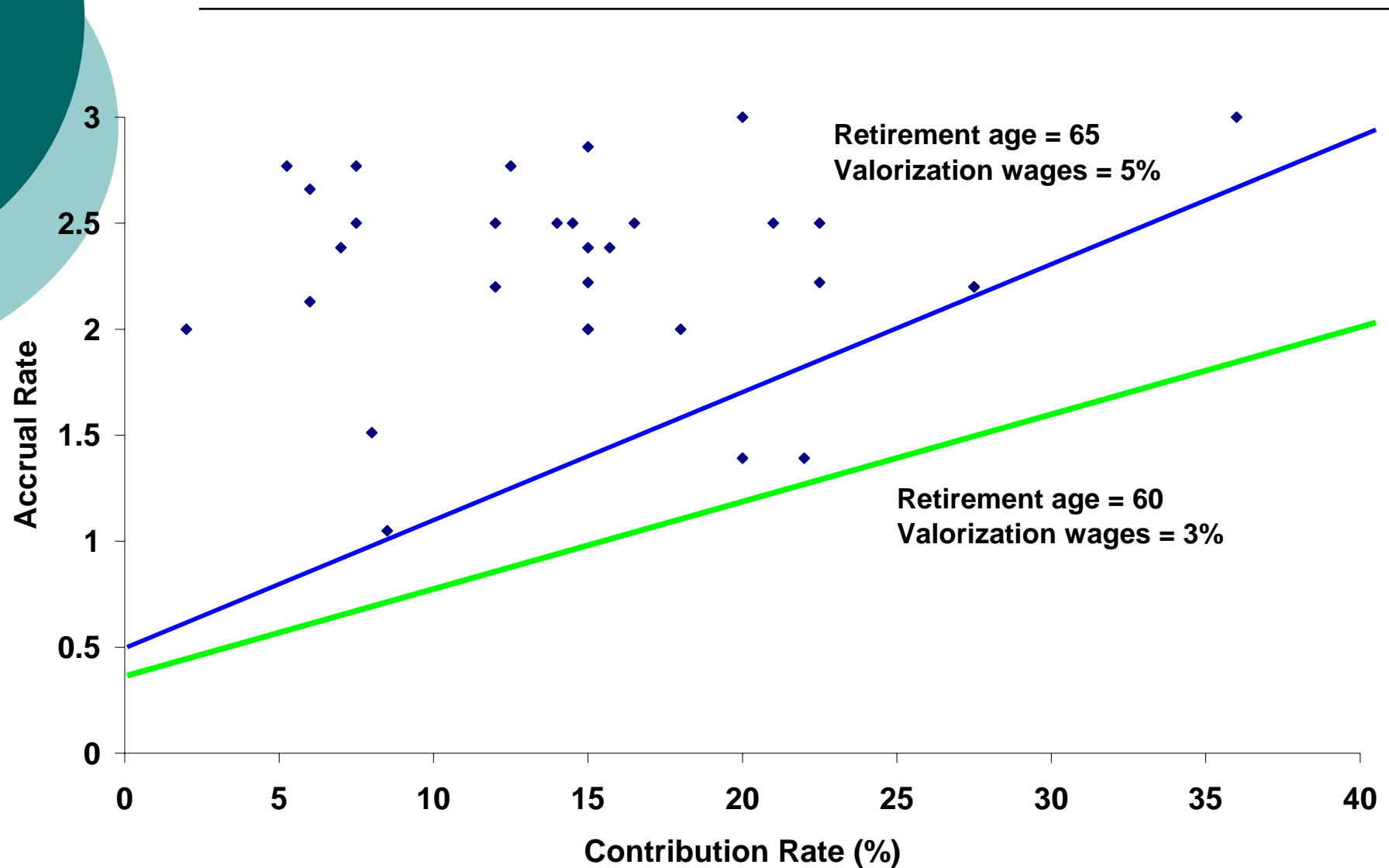




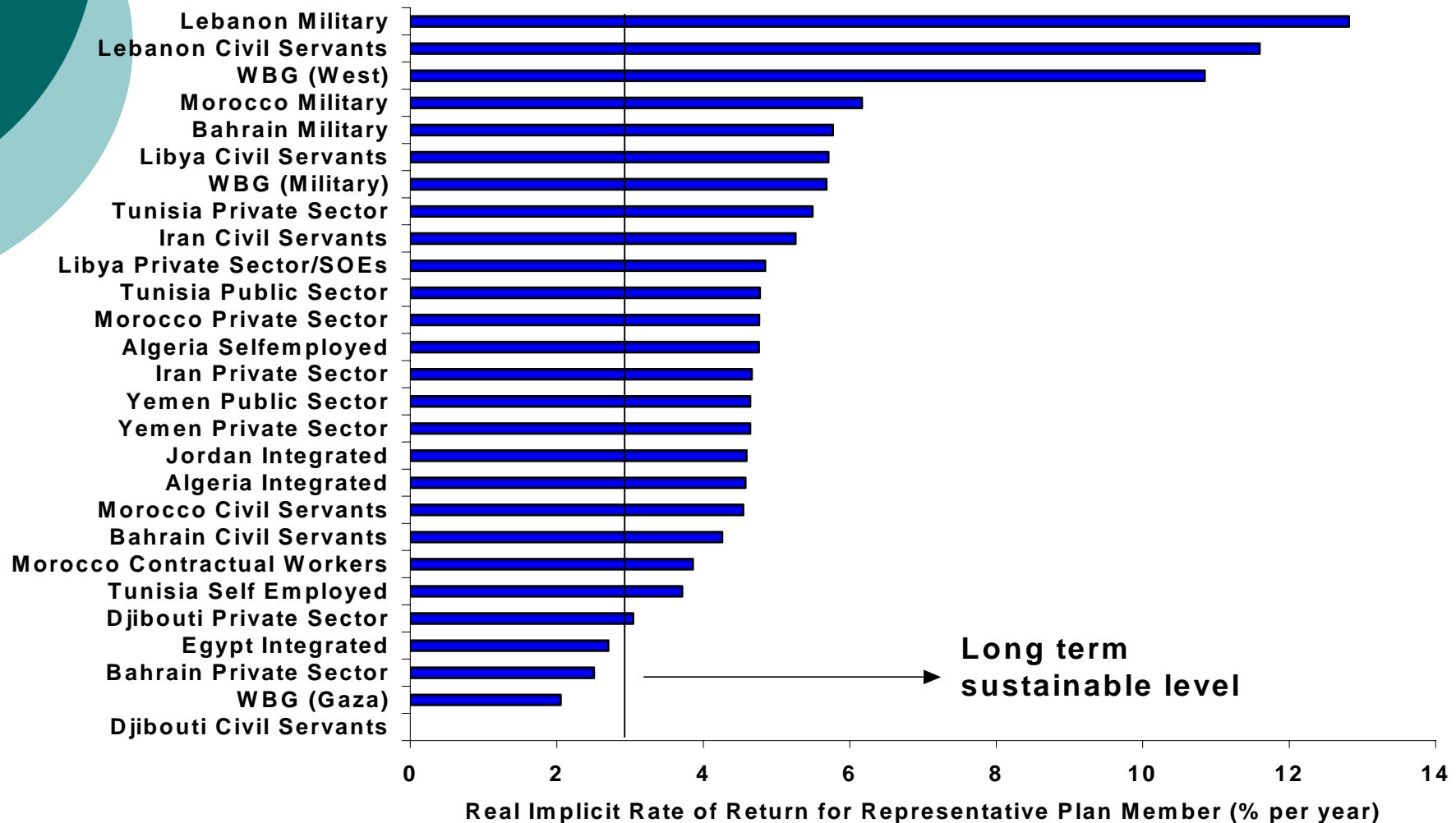
Contribution rate is set as a function of the accrual rate and retirement age

- Set accrual rate at a given retirement age.
- Contribution rate computed mathematically as a function of the accrual rate, the retirement age, the IRR, and life expectancy at retirement.
- Ask whether the contribution rate – and the resulting tax wedge – is affordable.
- If not review retirement age and/or accrual rate.
- If yes, make sure that the retirement age is adjusted periodically to take into account changes in life expectancy.
- And, also, apply actuarially fair penalties (compensations) for early (delayed) retirement.

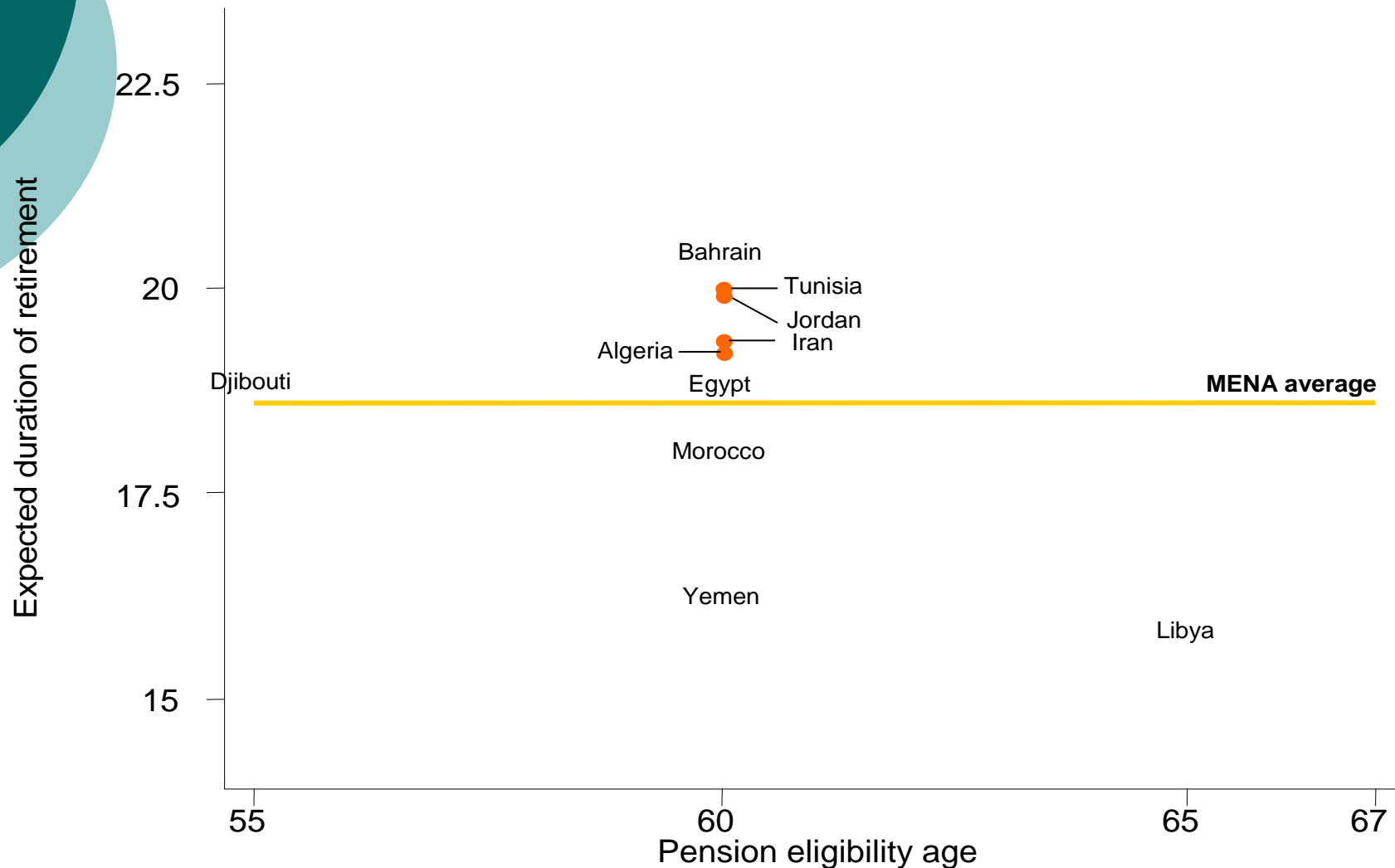
In MENA few systems respect this rule



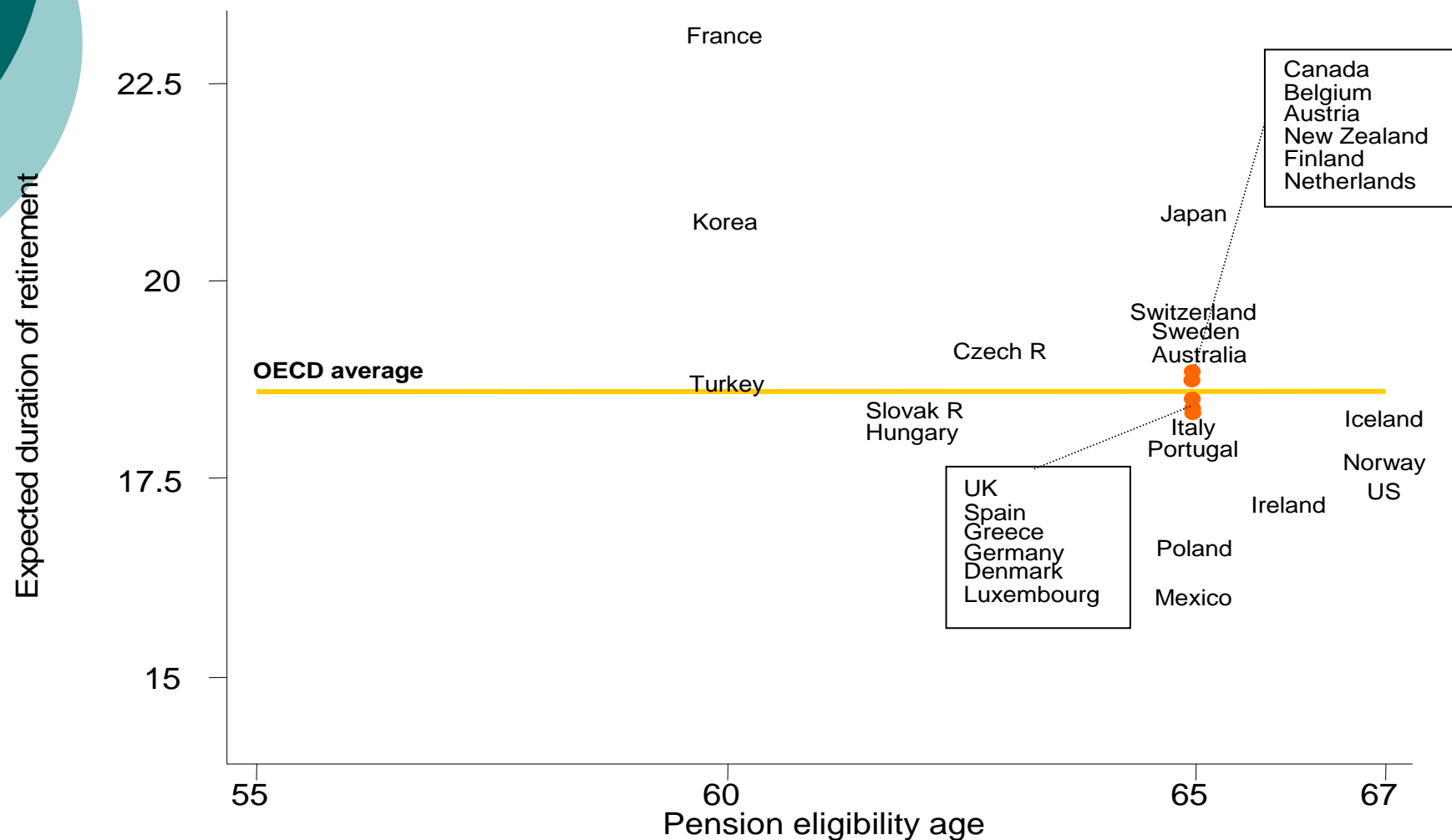
Most schemes pay IRR that are not sustainable



... Notice that there are also limits to the retirement age...




...and therefore to the mandate of the pension system





It is also important to use the proper measure of income...

- All salaries should be included in the calculation of the pension:
 - To avoid strategic manipulation of wages.
 - To provide incentives to enroll and contribute.
 - To avoid inequalities (i.e., individuals with fast growing wages receive higher rates of return on contributions).
 - NOT TO reduce pensions.
- Past salaries, however, need to be appropriately revalorized:
 - Revalorization factor is the sustainable IRR.
 - Proxy growth rate of the average covered wage.



... And to use the proper mechanisms to index pensions

- Important to automatically index pensions:
 - Retirees are not exposed to the risk of inflation.
 - System is not exposed to the risk of over adjustments.
- “Automatic” means no discretion:
 - Adjustments are made by benefits payment department.
 - No need for approvals from MOF or other.
- Which index?
 - Consumer price index.
 - The sustainable IRR (in this case initial pension is lower - retiree can be exposed to real losses).
 - There can be “exist” strategies in the case of crisis.



Robustness

- Free, independent of day-to-day political interventions



Notional account system: an example

- Can remain pay-as-you-go.
- Individual's contributions are registered in individual accounts.
- Contributions are revalorized by the sustainable rate of return of the system (IRR).
- Accounts are nominal; assets do not accumulate (no property rights).
- Upon retirement accumulated contributions (or notional capital) are transformed into an annuity (pension for life).



Notional account system (2)

- By construction, benefit formula for pension (annuity) respects all principles:

$$P(\text{age}) = \frac{\textit{AccumulatedContributions}}{\textit{AnnuityFactor}}$$

- Annuity factor depends on life expectancy (at retirement) and the IRR.
- Formula is more transparent than classic DB formula; although mathematically equivalent.

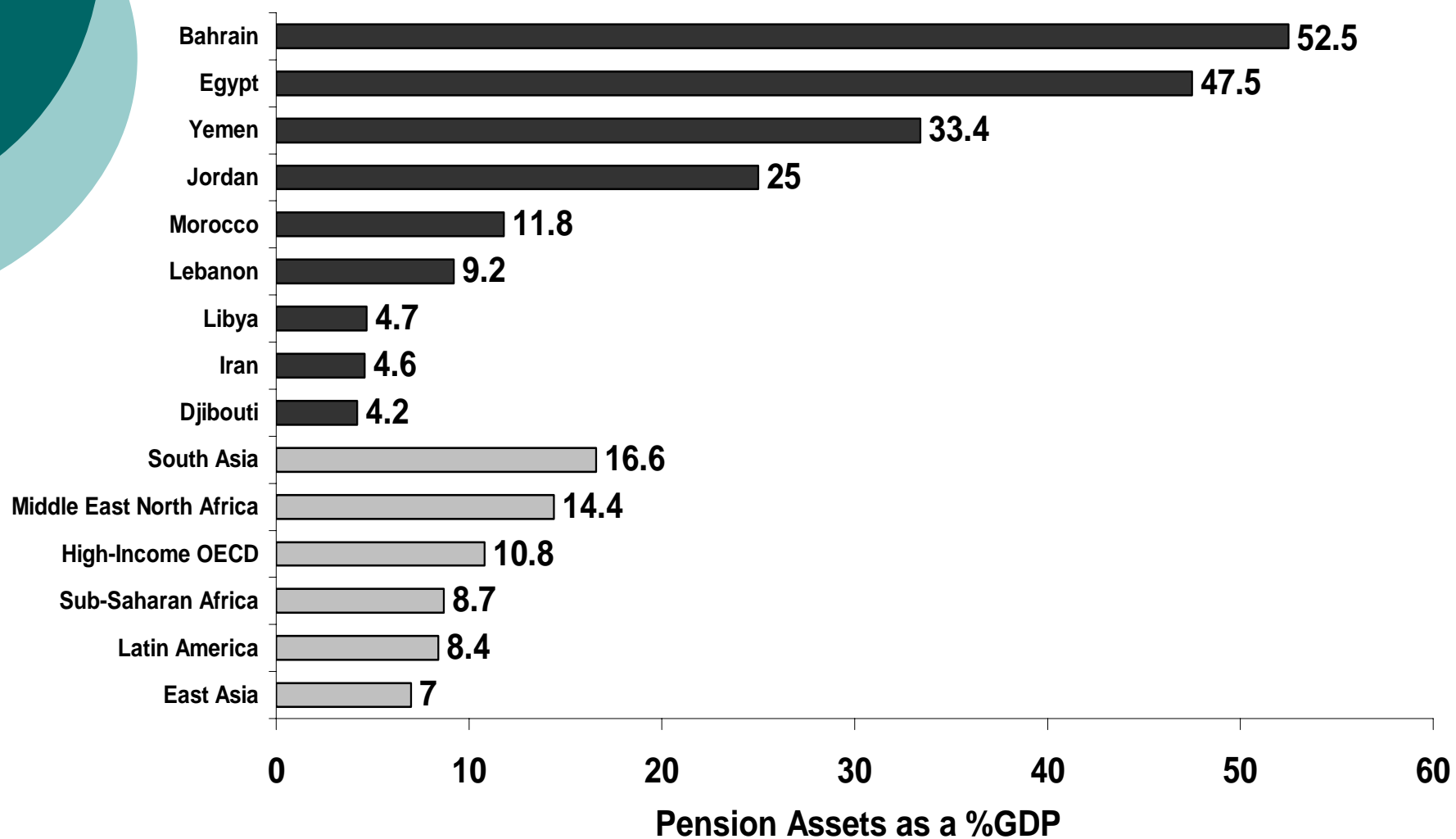


Defined contribution system (fully funded)

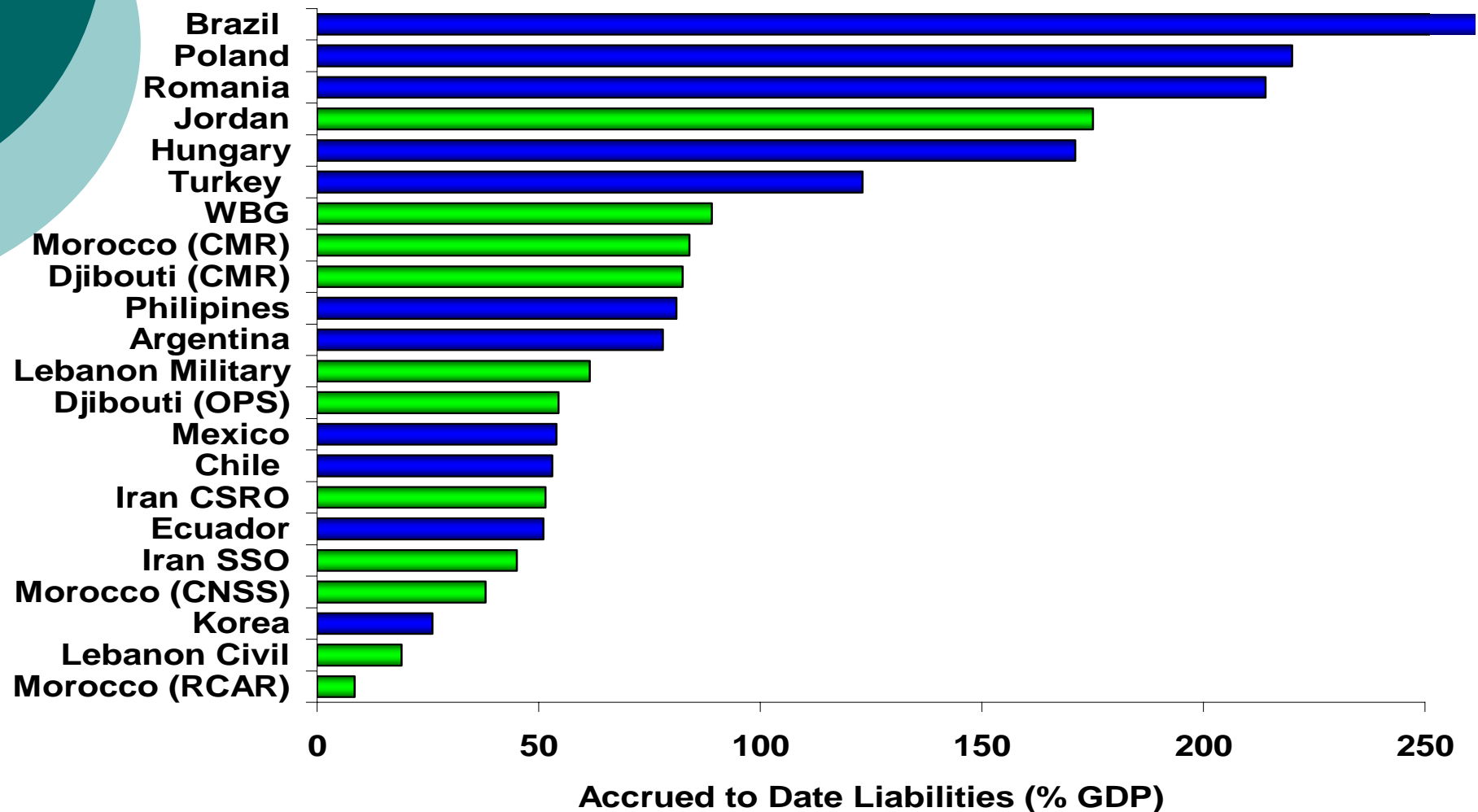
Individuals contributions accumulate in individual accounts.

- These are real accounts with contributions invested in financial assets (valued at market prices).
- Individuals have property rights on individual accounts.
- Upon retirement the pension is also calculated by dividing capital in the account by annuity factor.
 - Annuity factors defined by the market (insurance companies).
- No contingent liabilities for the government.

Several countries own funds



These are small relative to liabilities





Which level of funding?

- Benefits:

- If assets are well diversified, higher rate of return on contributions (higher pension for the same contribution rate).
- Can contribute to financial sector development (if necessary conditions are in place):
 - Demand for long term instruments.
 - Additional source of financing for firms (less vulnerable to changes in interest rates).
 - Reduces transformation risks facing Banks.

- Costs:

- Transition costs.
- Risks of capital loss if reserves are not well managed.



Some conditions to maximize benefits and minimize costs

- Institutions:
 - Solid well regulated financial institutions (Banks, insurance companies) with no dominance from the public sector.
 - Commitment to develop capital markets.
- Instruments:
 - Remove constraints for the development of corporate bonds, mortgage bonds, infrastructure bonds (e.g., foreclosure, underwriting, credit rating, PPPs)
 - No constraints for investments abroad.
- Rationalize public debt management:
 - To build yield curve necessary to price securities.



Which institutional setting?

- Strong arguments for an integrated system (all professions/sectors).
 - Administration costs.
 - Transparency and equity.
 - Labor mobility.
 - Higher IRR for pay-as-you-go.
- Good arguments for centralized management (lower costs):
 - Centralized collection (different from Chile).
 - Management of assets, if any, can be outsourced.
- Also evidence that governance structure of pension institution affects investment policies.



Conclusions

- Pension systems in the MENA region score high on the counts of adequacy (pension eligible even for short contribution periods, several risks covered) and some aspects of robustness (strong social security institutions, still significant reserves)
- Pension systems in the MENA region fare poorly on the counts of affordability (as documented by low coverage and high contribution rates) and sustainability (as seen e.g. by excessively high IRRs)
- Without reforms towards NDC and transparent funded pillars, MENA pension systems will not be able to create positive effects for the whole economy in terms of reducing labor market distortions, and developing financial sector.