

“The Herzliya Indices”

National Security Balance

The Civilian Quantitative

Dimension

Herzliya Conference

2009

Herzliya Indices Team

Team Leader

Prof. Rafi Melnick - IDC Herzliya

Team Members

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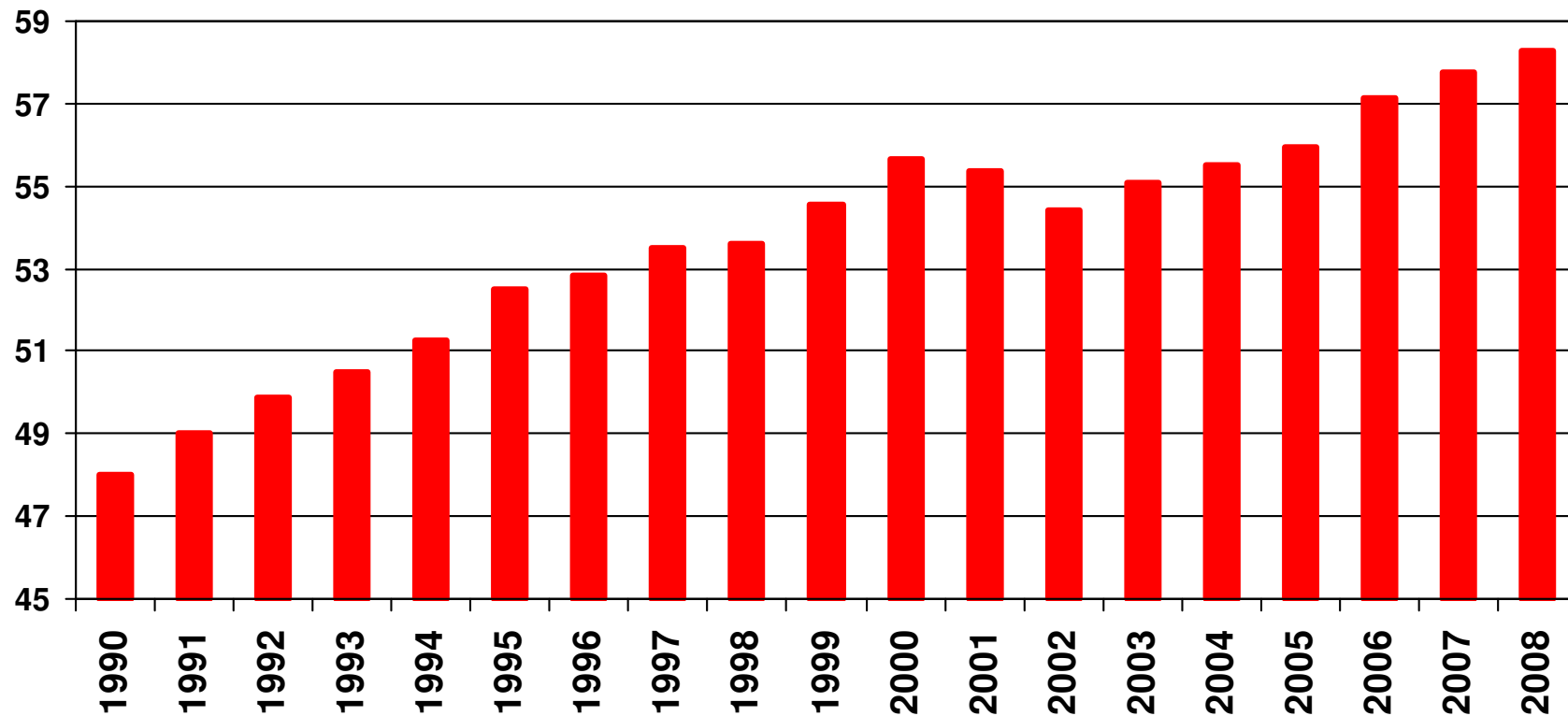
Dr. Michel Strawczynski – Bank of Israel

Mr. Tommy Steiner – IDC Herzliya

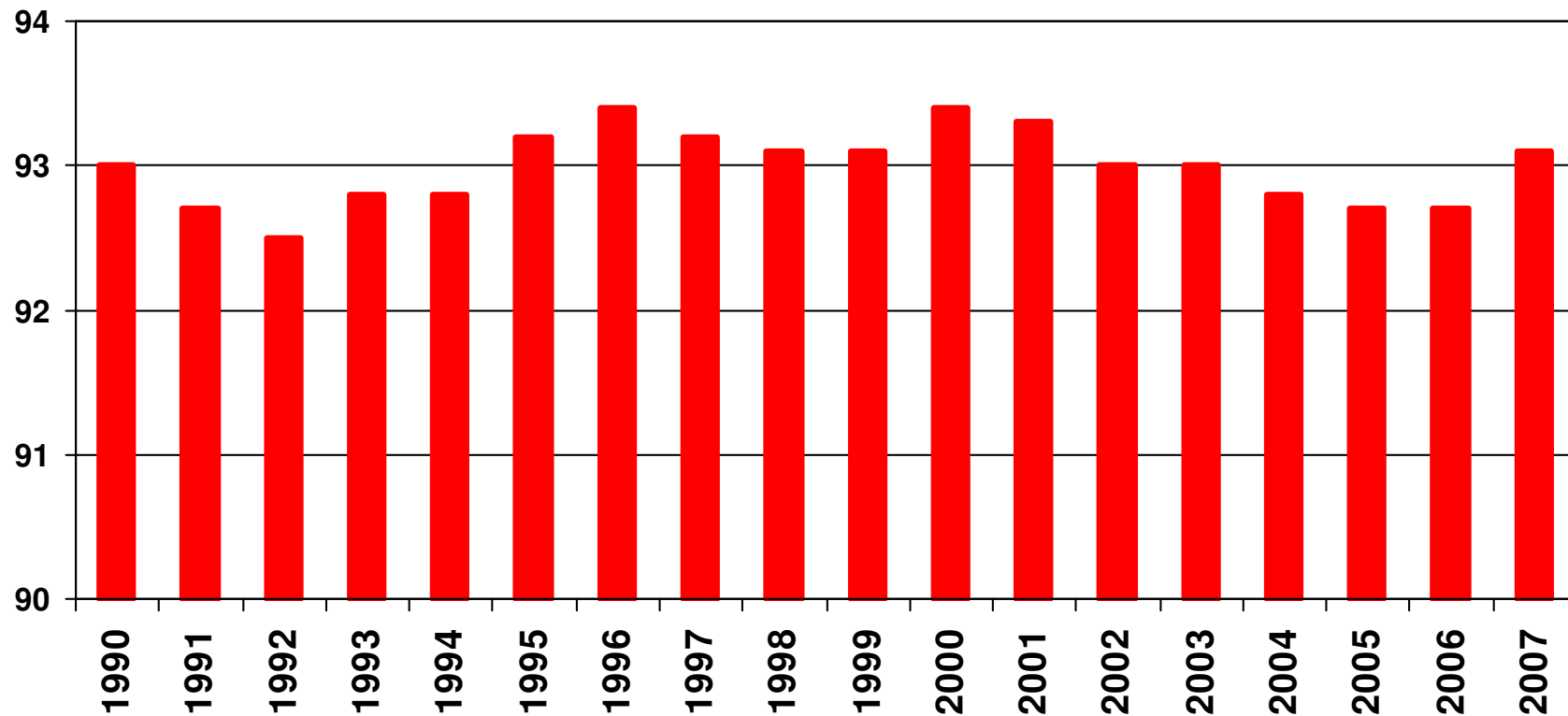
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With thanks the research division of the National Insurance Institute of Israel, Polina Dovman (Bank of Israel), and Gilad Skutelsky (IDC Herzliya) for their assistance with research.

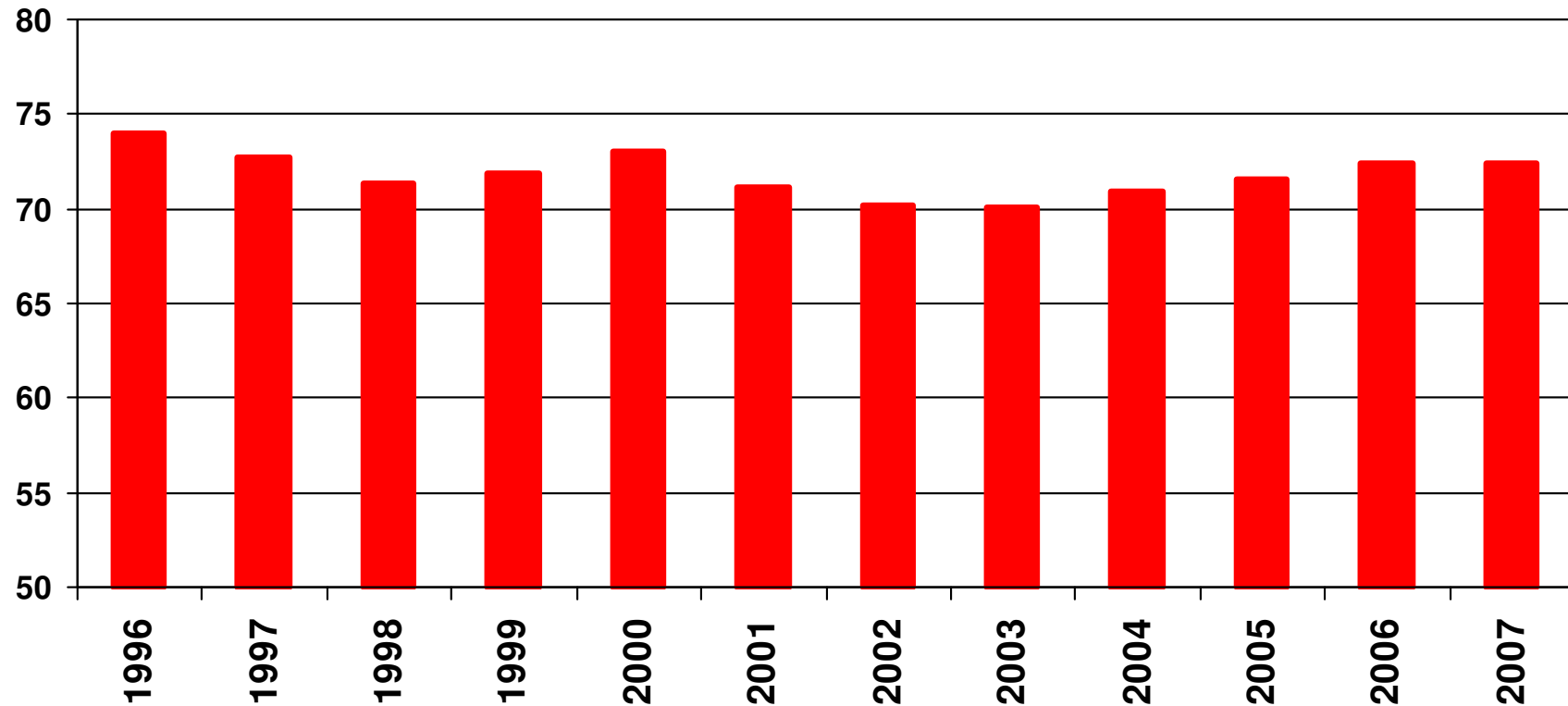
Development of the Economic Dimension in Israel 1990-2008



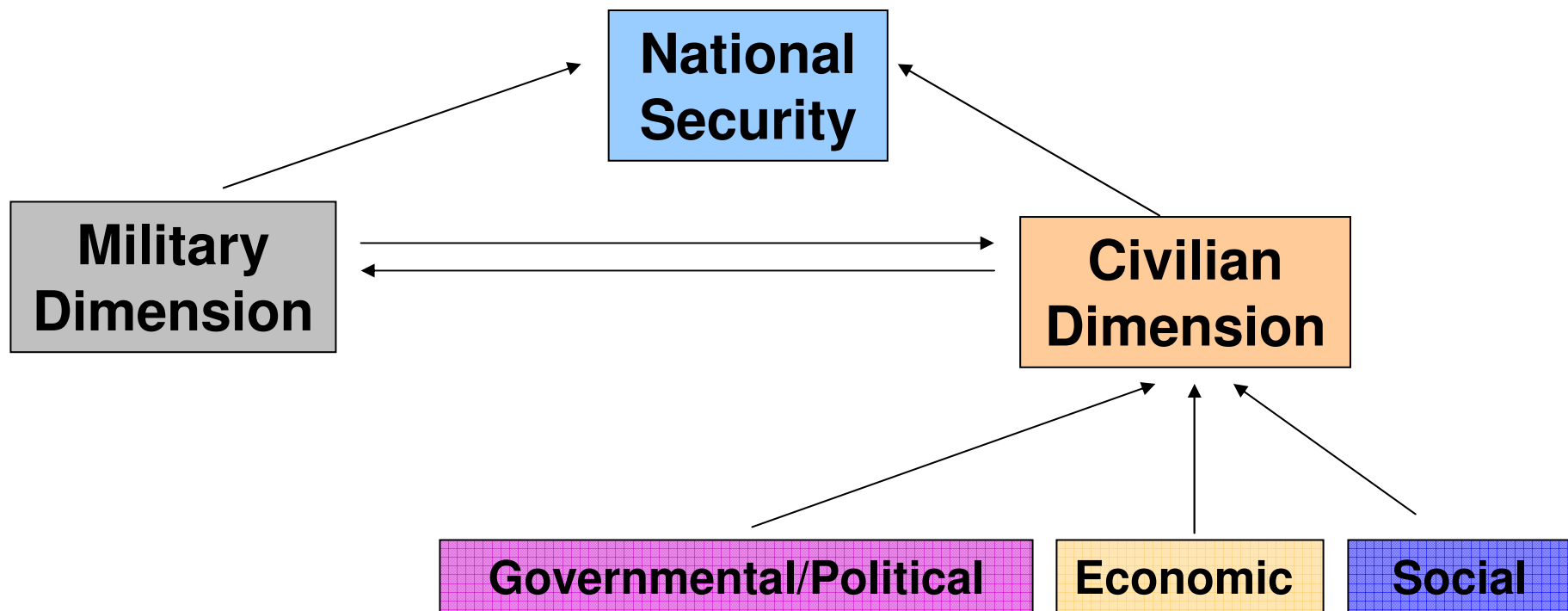
Development of the Social Dimension in Israel 1990-2007



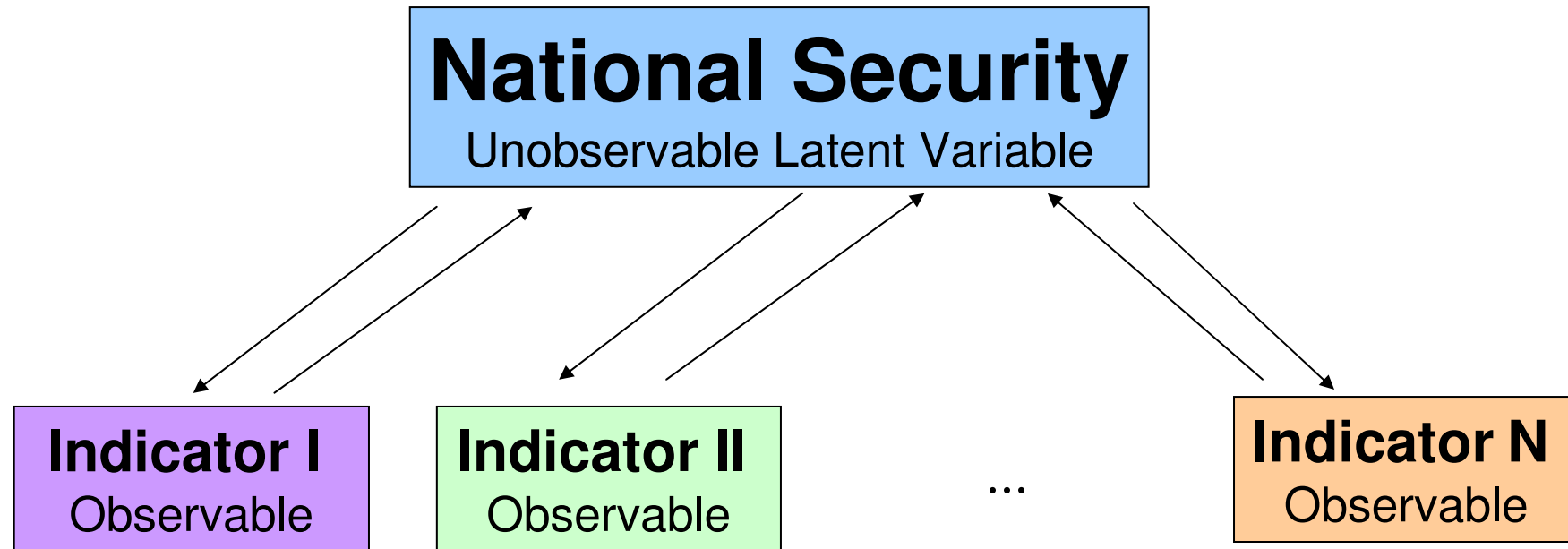
Development of the Governmental/ Political Dimension in Israel 1996-2007



Dimensions of National Security



Multiple Indicators Approach



- N indicators are measurable; they affect and are affected by national security, which is an unobservable latent variable.
- The presence of multiple indicators allows (under defined assumptions) one to quantify national security.
- A rise in each indicator means improvement in national security, in the corresponding dimension.

Components of the Economic Indicator

(relative weight in parenthesis)

- 1. GDP Per Capita, PPP (16%)**
- 2. GDP, PPP (15%)**
- 3. Unemployment (15%)**
- 4. High-Technology Exports – % of Manufactured Exports (11%)**
- 5. General Government Gross Financial Liabilities (11%)**
- 6. Inflation Rate (11%)**
- 7. Current Account Balance (11%)**
- 8. Foreign Currency Reserves (10%)**

Components of the Social Indicator

(relative weight in parenthesis)

1. **Poverty Incidence (14%) ***
2. **Gini Inequality Coefficient (12%) ****
3. **Human Development Index – Education (11%) *****
4. **Chronic Unemployment (10%)**
5. **Human Development Index – Life Expectancy (10%) *****
6. **Rate of Participation in Labor Force – Men (10%)**
7. **Rate of Participation in Labor Force – Women (10%)**
8. **Human Development Index – GDP (9%) *****
9. **Population Aged 65+ (7%)**
10. **Population Aged 15- (7%)**

Components of the Social Indicator

(notes)

* Gini data:

Israel data updated for 2007

Countries` data updated for mid 2000`s except: Austria, Belgium, Egypt Greece, France, Hungary, Ireland, Italy, Poland, Portugal, Spain, Switzerland (updated for early 2000`s); Czech Republic (updated for mid 1990`s);

Syria- No data.

** Poverty data:

Israel data updated for 2007

Countries` data updated for mid 2000`s except: Austria, Greece, Hungary, Iran, Ireland, Jordan, Netherlands (updated for early 2000`s); Czech Republic (updated for mid 1990`s)

*** HDI indicators: Last updated in 2005

Components of the Governmental/ Political Indicator

(relative weight in parenthesis)

- 1. Political Stability and the Absence of Violence (11%)**
- 2. Rule of Law (11%)**
- 3. Democracy (10%)**
- 4. Political Rights (9%)**
- 5. Civil Liberties (9%)**
- 6. Control of Corruption (8%)**
- 7. Quality of Regulation (8%)**
- 8. Efficiency of Government (8%)**
- 9. Voice and Accountability (8%)**
- 10. Alliances (6%)**
- 11. Membership in International Organizations (6%)**
- 12. Hosted Embassies (6%)**

The Model

- Construction of a panel data set of 31 countries
- The model includes:
 - Israel
 - 26 OECD countries
 - 4 regional countries: Egypt, Iran, Jordan, and Syria
- Data ranges from 1990 through 2007
- Israel's economic data is through 2008

Economic Data Sources

Primary Sources

- World Bank
- IMF – World Economic Outlook
- OECD Economic Outlook
- Israel's Central Bureau of Statistics

Secondary Sources

- IFS – International Financial Statistics (IMF)
- Economist Intelligence Unit-Iran
- Bank of Israel and various central banks
- Other sources

Social Data Sources

Primary Sources

- OECD
- Luxembourg Income Study
- Israel's Central Bureau of Statistics
- National Insurance Institute of Israel
- UN Human Development Reports

Secondary Sources

- OECD, Labor Market Statistics Data LFS by sex
- CIA
- National Tobacco Information Online System
- Statistical, Economic and Social Research and Training Center for Islamic Countries
- World Bank
- Eurostat Data, Indicators of the 20 NewCronos

Governmental/Political Data Sources

Primary Sources

- World Bank
- Freedom House
- Polity IV Project
- A.T. Kearny - Foreign Policy Magazine
- Europe Yearbook
- Treaties and Alliances of the World

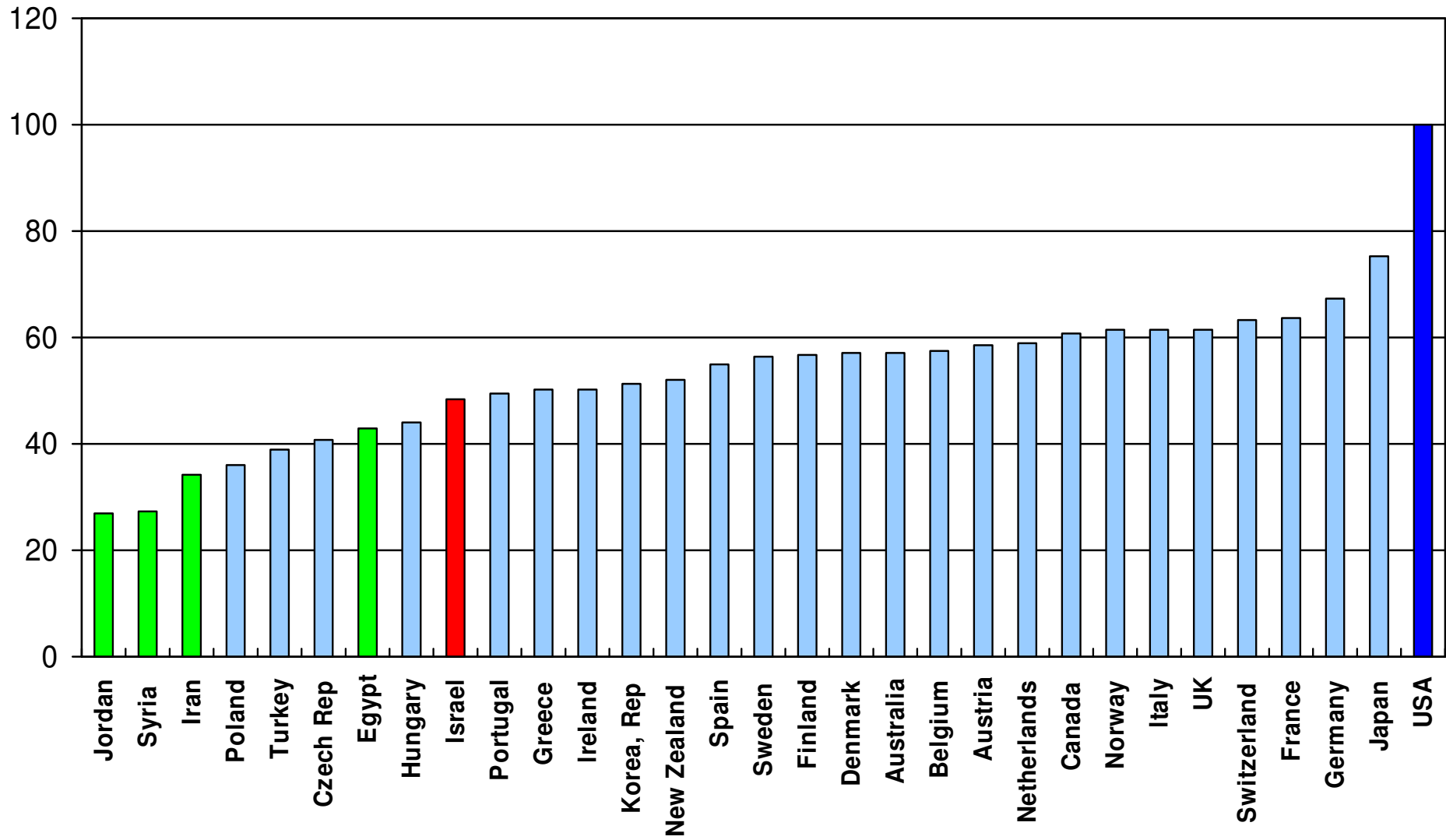
Methodology

- A preliminary base is calibrated for each dimension
- Each variable is measured in percentage change or percentage difference in the case that its basic measurement is in percents
- An annual weighted average is calculated using the weights obtained from a panel of experts
- The indices are formed, over time, by cumulating annual weighted averages

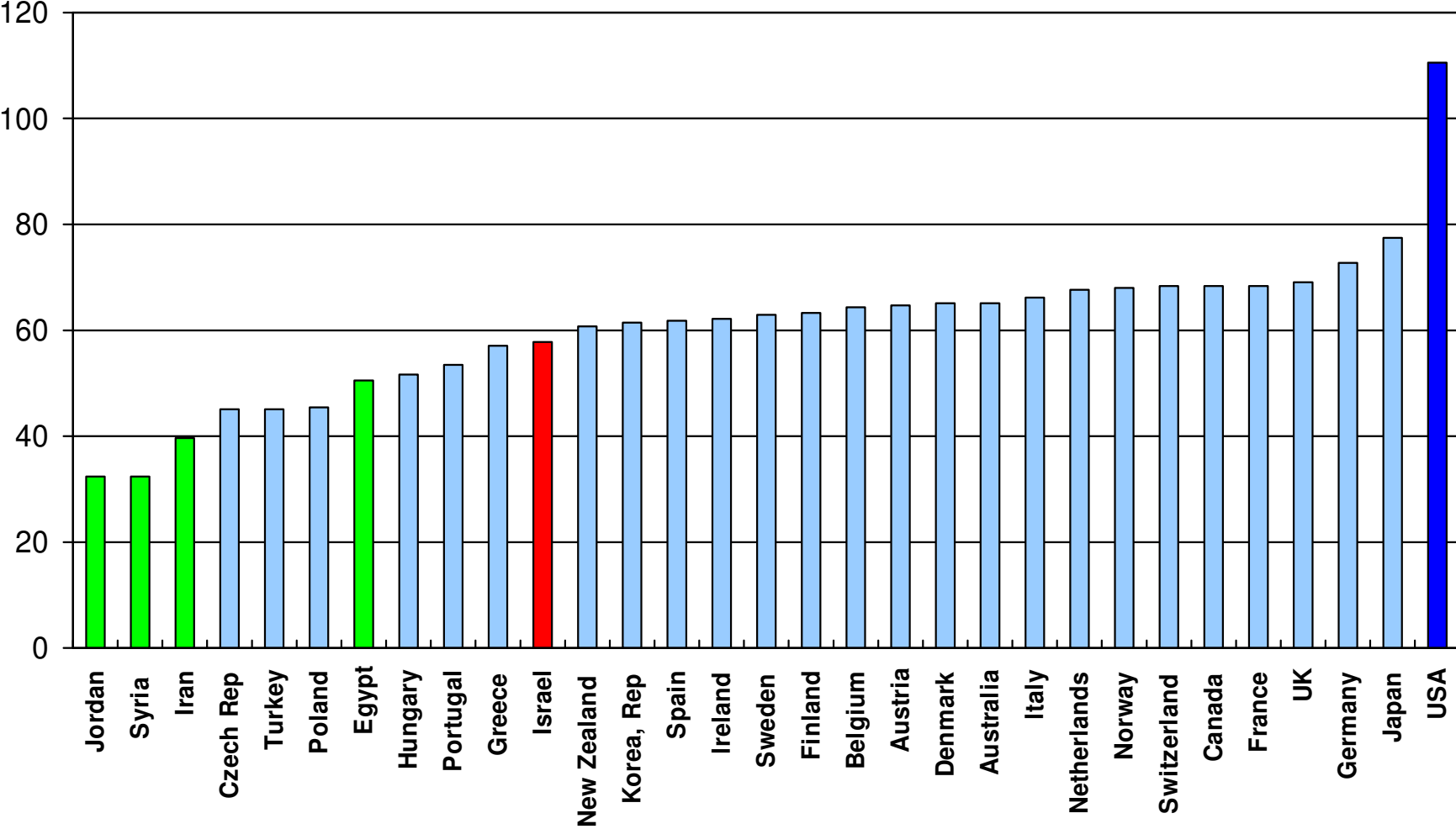
Herzliya Indices 2009

Results

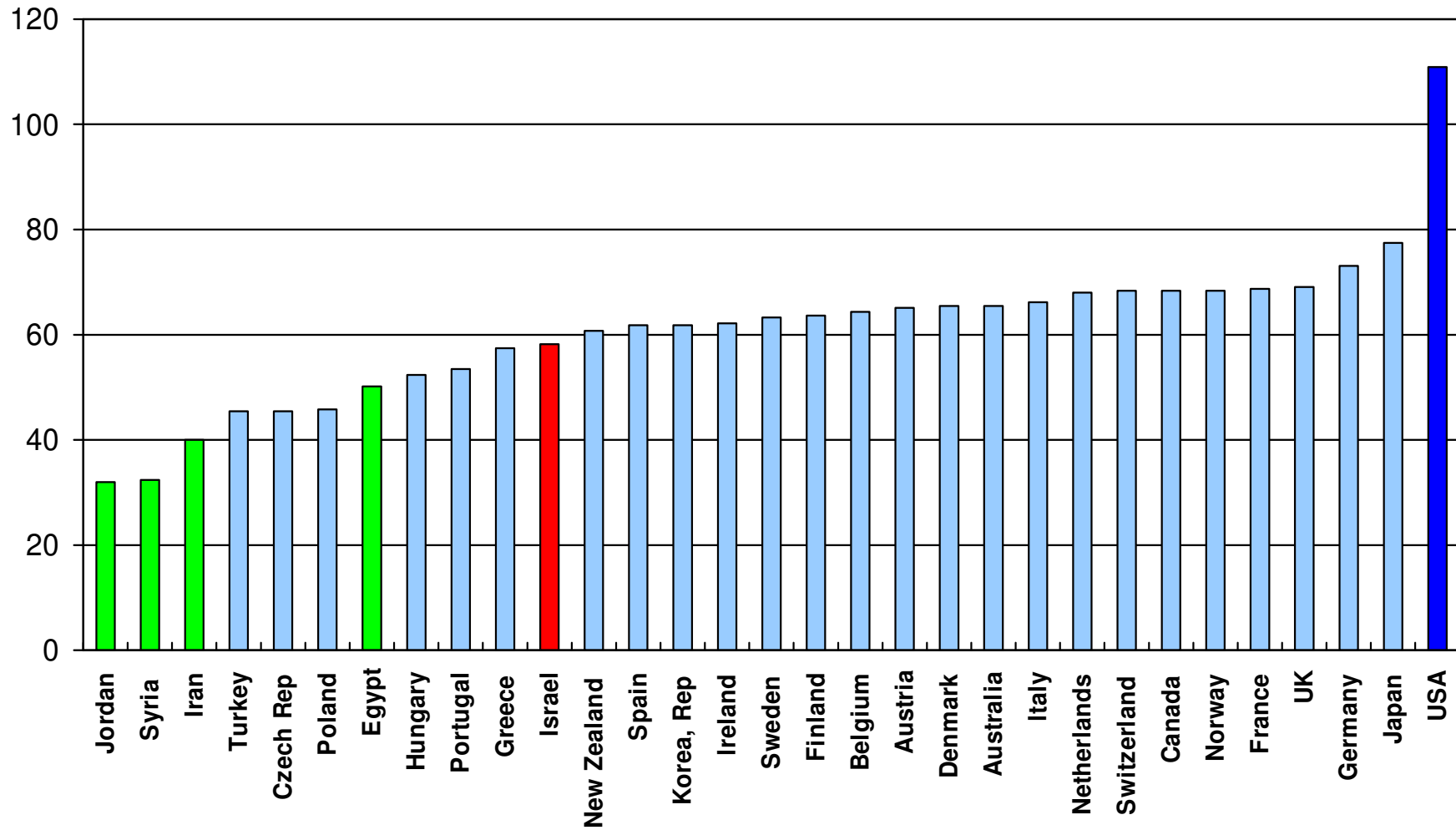
Economic Base | 1990



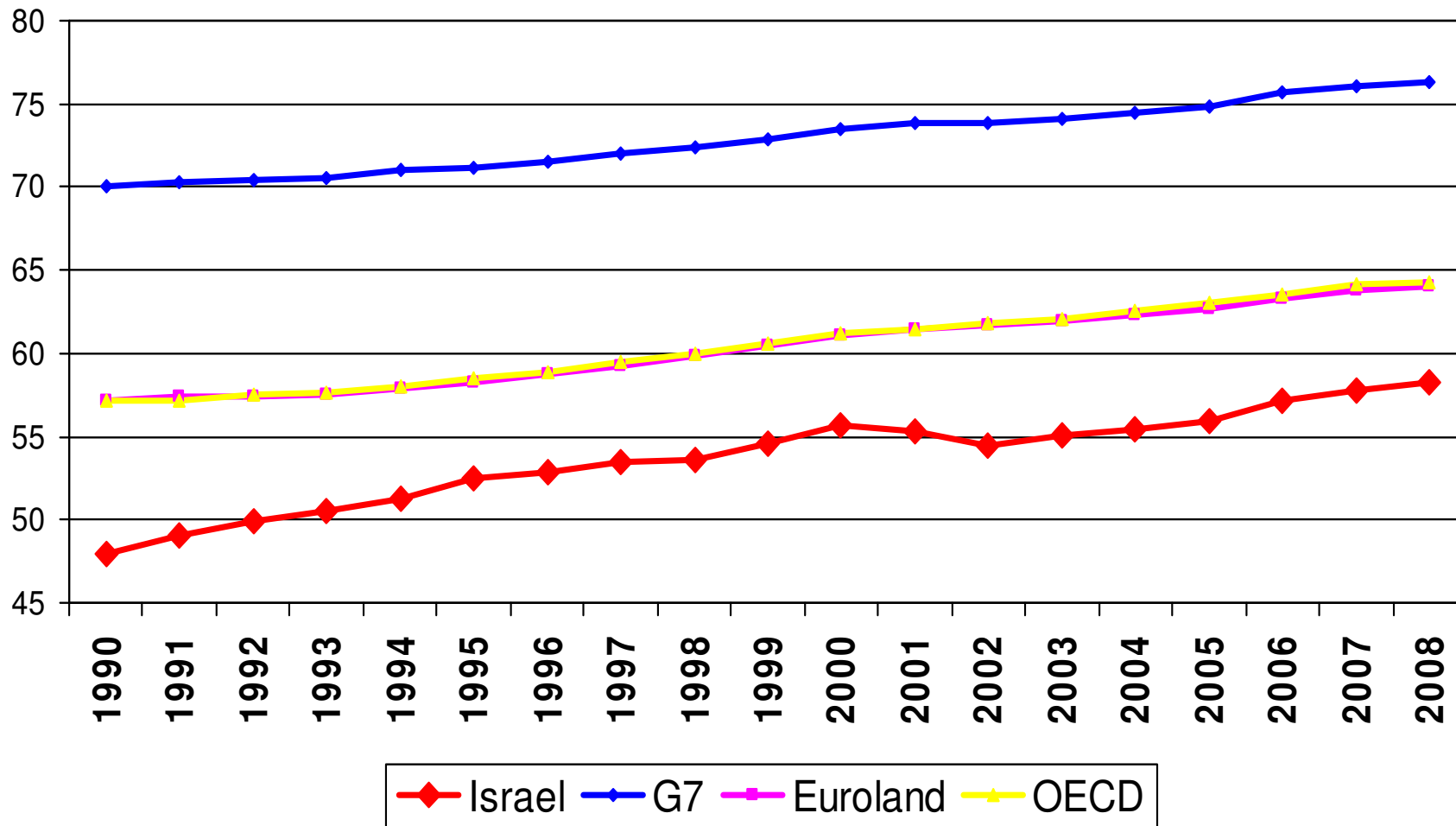
Economic Base | 2007



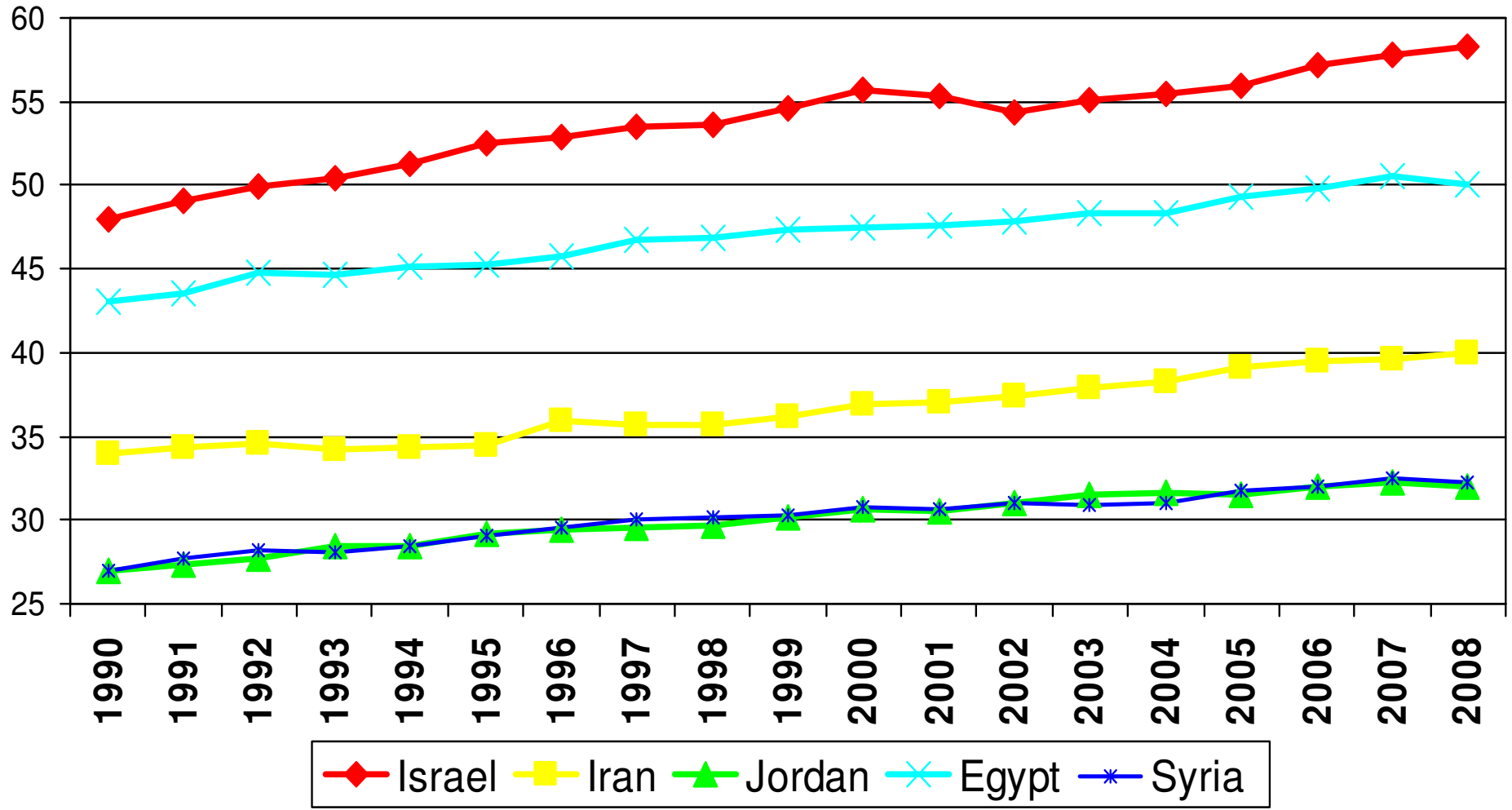
Economic Base | 2008



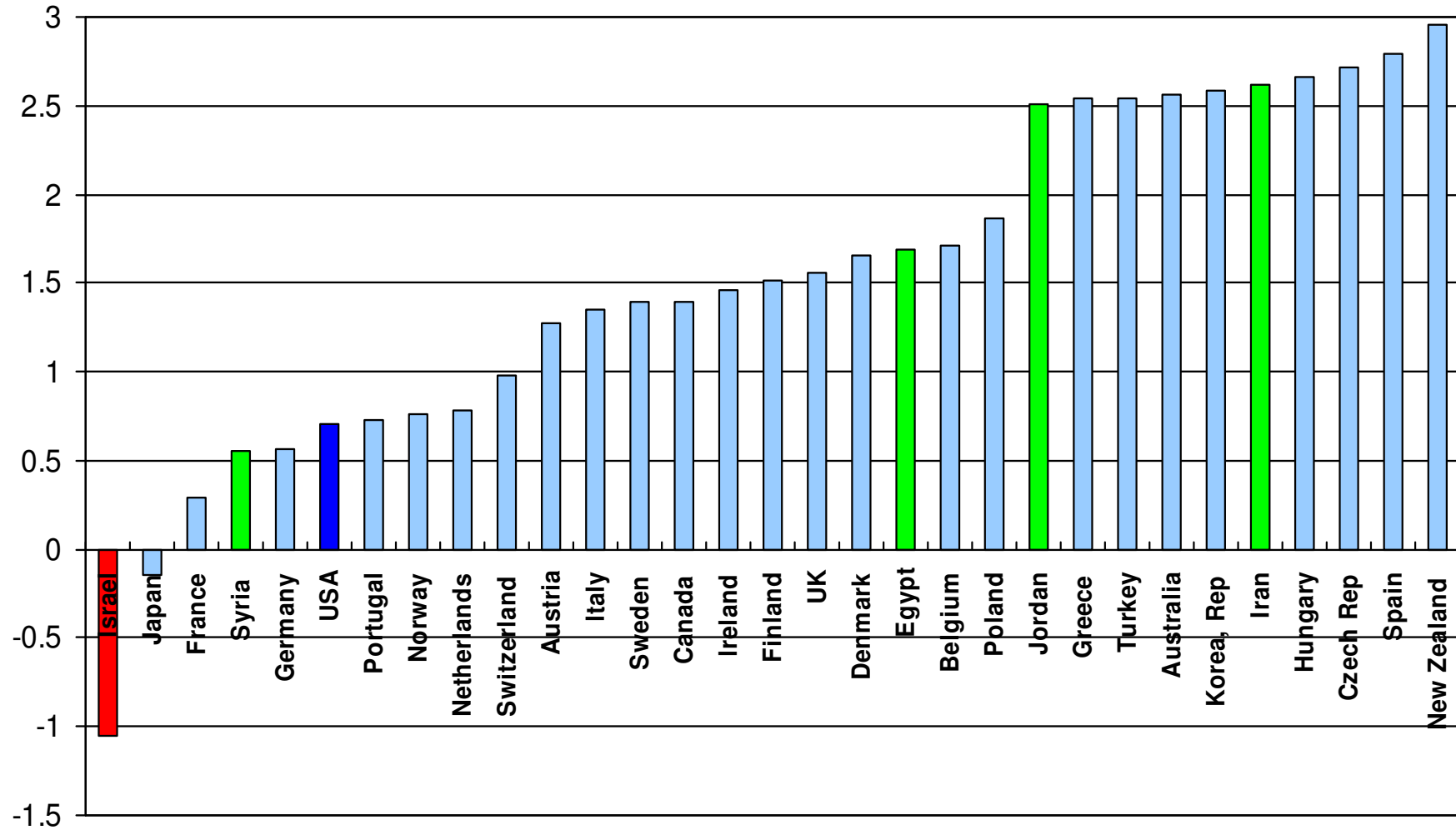
Development of the Economic Dimension Israel and the Developed Countries



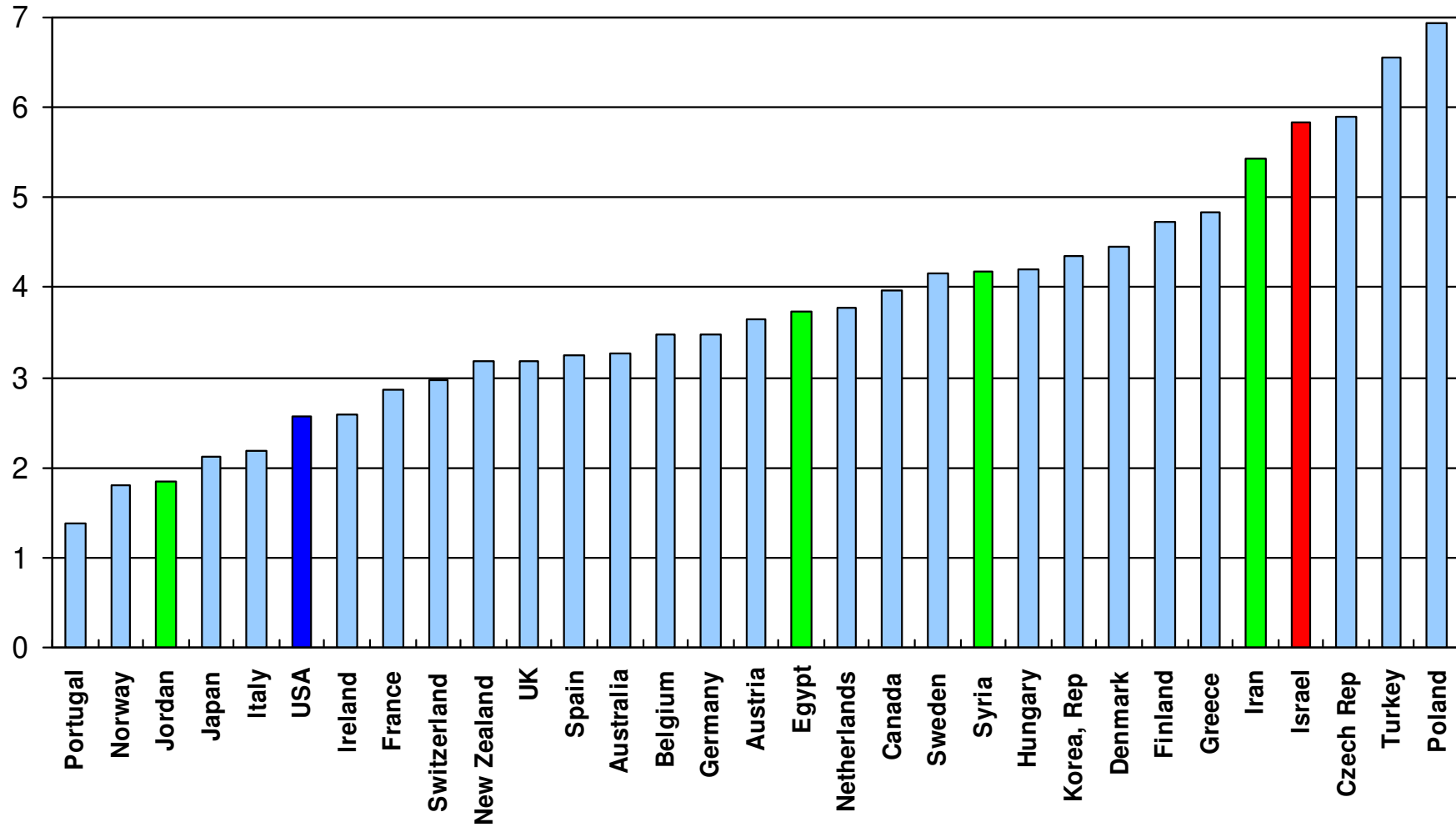
Development of the Economic Dimension Israel and Regional Countries



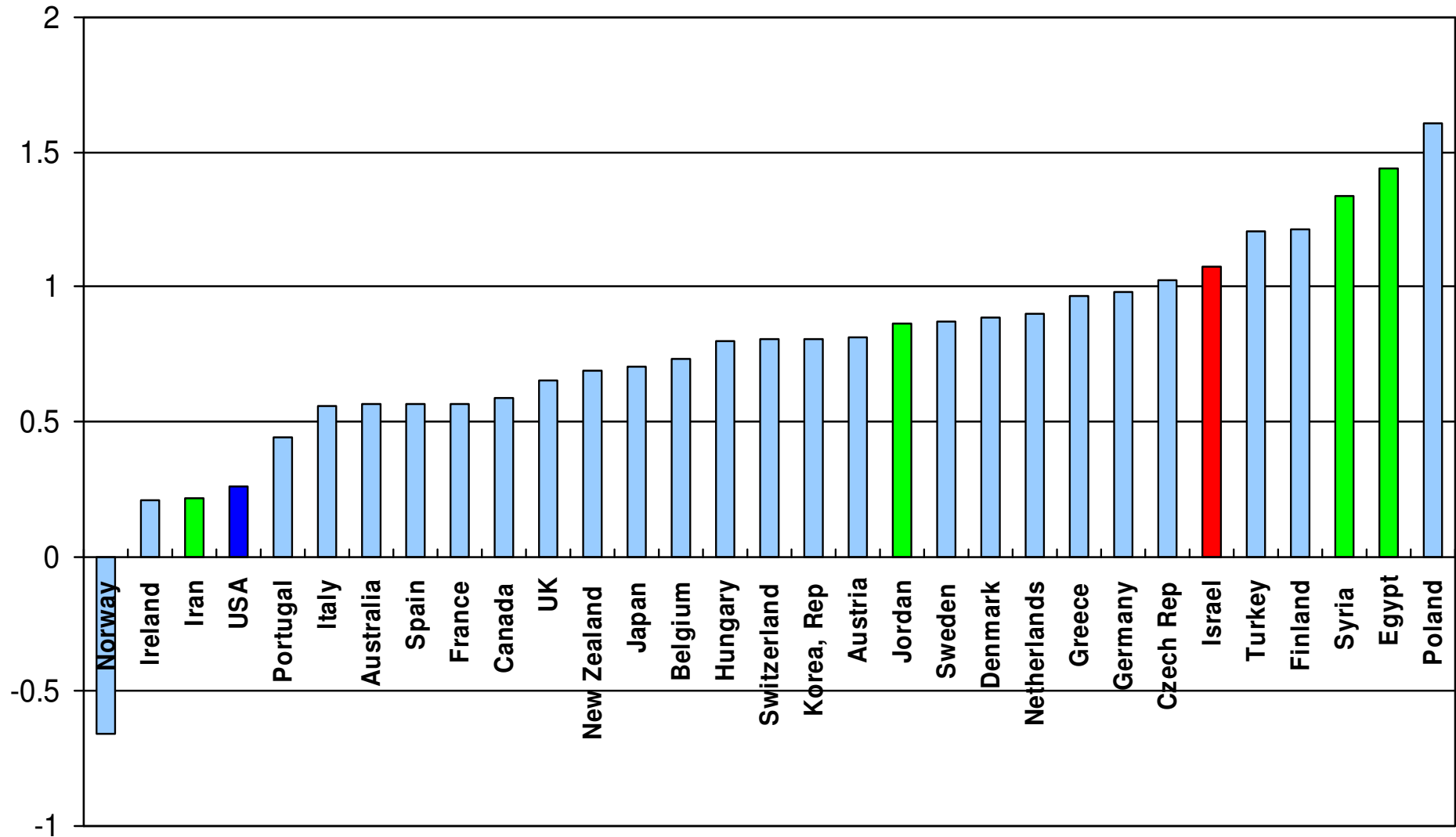
Economic Change (percent) | 2000-2003



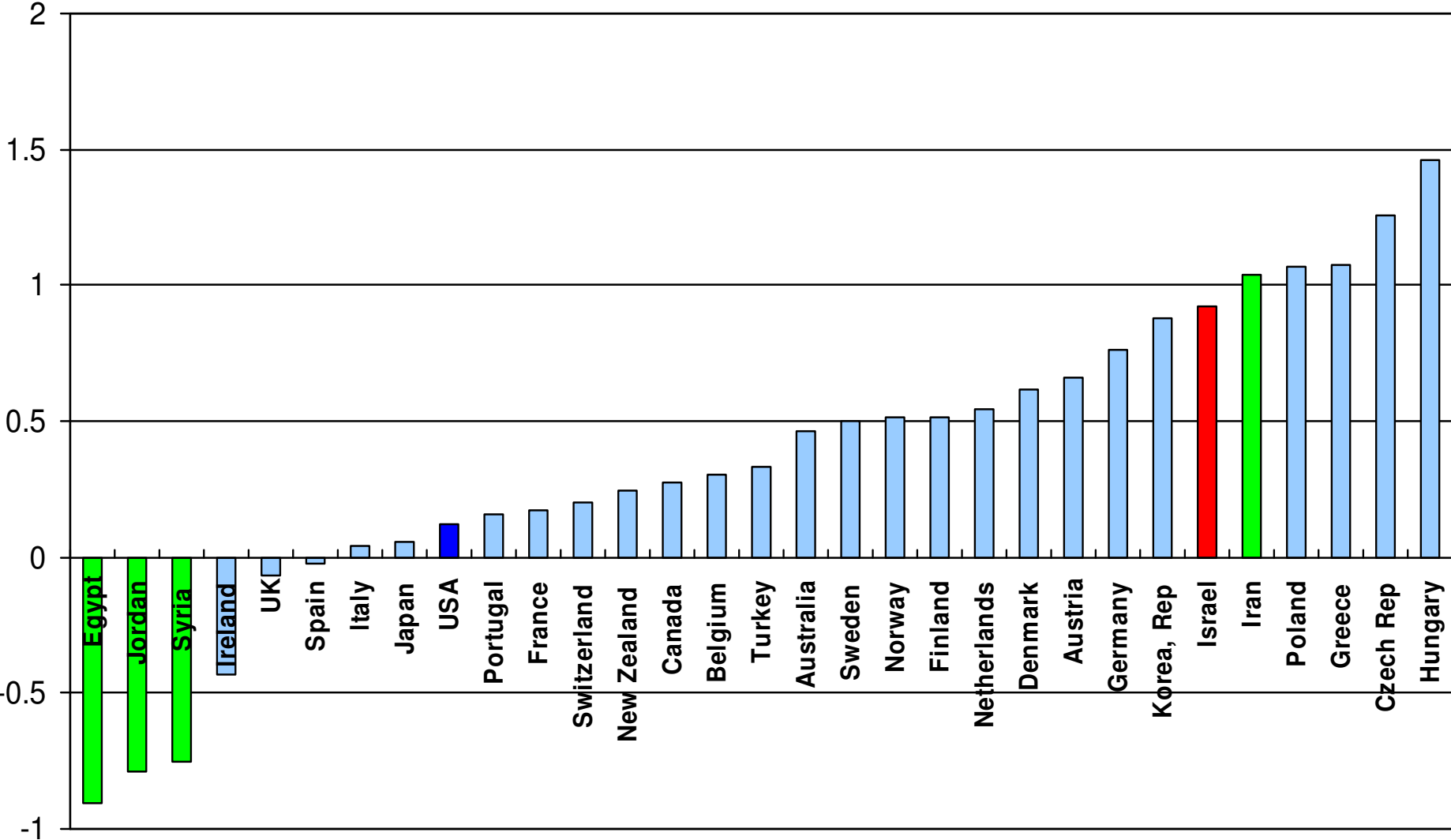
Economic Change (percent) | 2003-2008



Economic Change (percent) | Marginal 2007



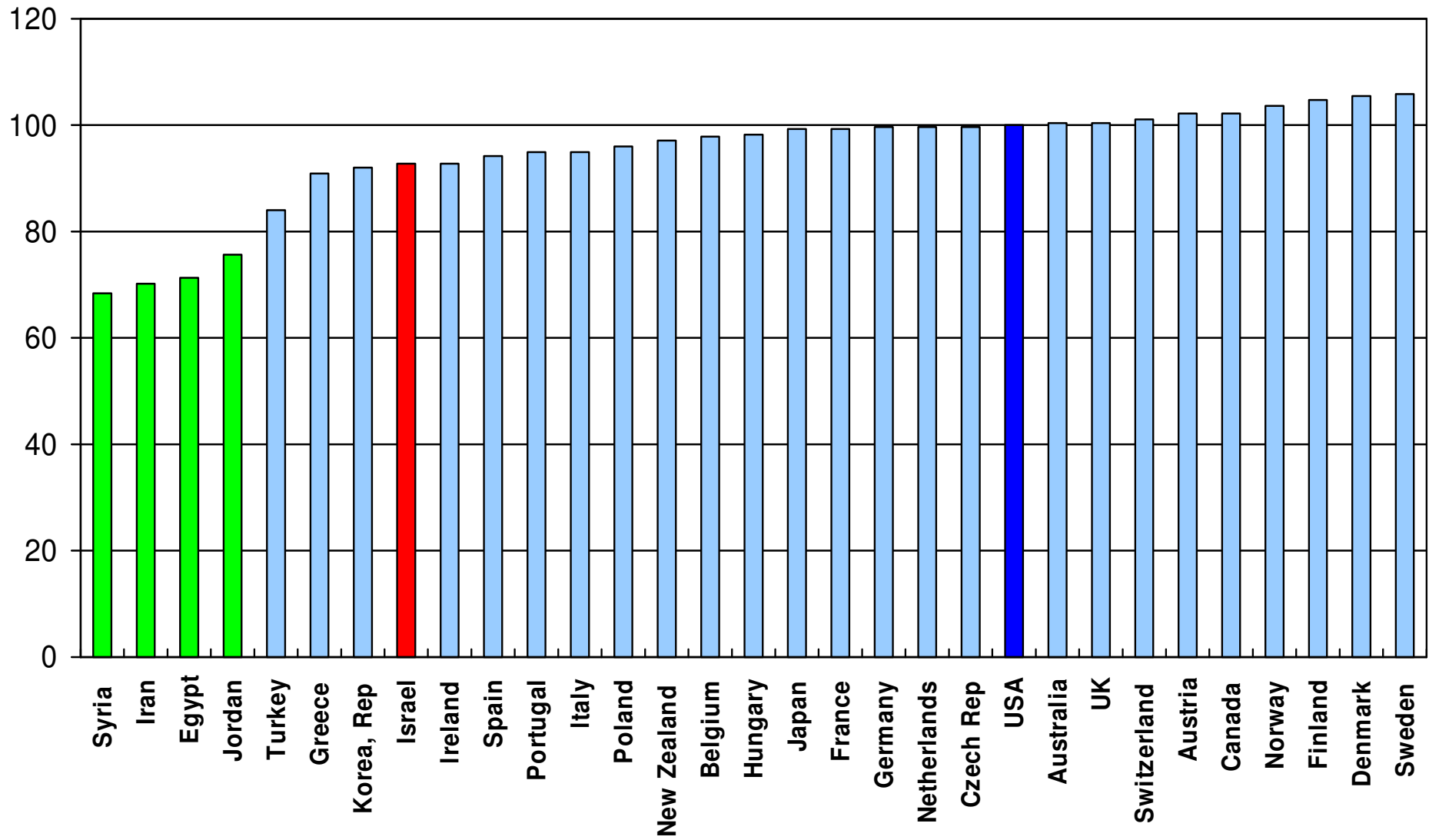
Economic Change (percent) | Marginal 2008



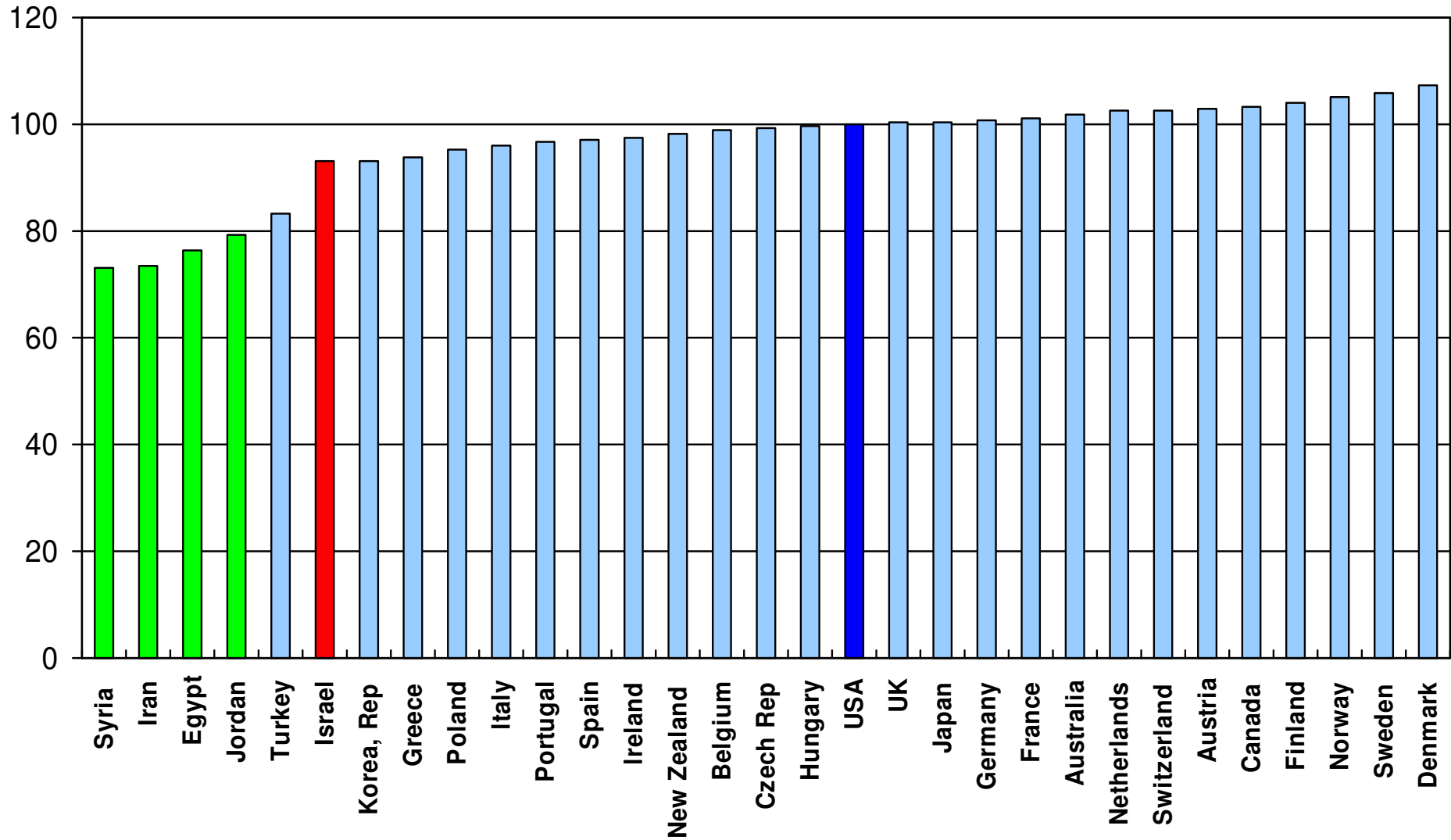
Economic Index 2008

1	USA	110.7	17	Ireland	62.0
2	Japan	77.6	18	Korea, Rep	61.9
3	Germany	73.2	19	Spain	61.7
4	UK	69.1	20	New Zealand	60.8
5	France	68.6	21	Israel	58.3
6	Norway	68.5	22	Greece	57.5
7	Canada	68.4	23	Portugal	53.6
8	Switzerland	68.4	24	Hungary	52.2
9	Netherlands	68.1	25	Egypt	50.1
10	Italy	66.2	26	Poland	46.0
11	Australia	65.4	27	Czech Rep	45.5
12	Denmark	65.4	28	Turkey	45.3
13	Austria	65.1	29	Iran	40.0
14	Belgium	64.4	30	Syria	32.2
15	Finland	63.5	31	Jordan	32.0
16	Sweden	63.2			

Social Base | 1990

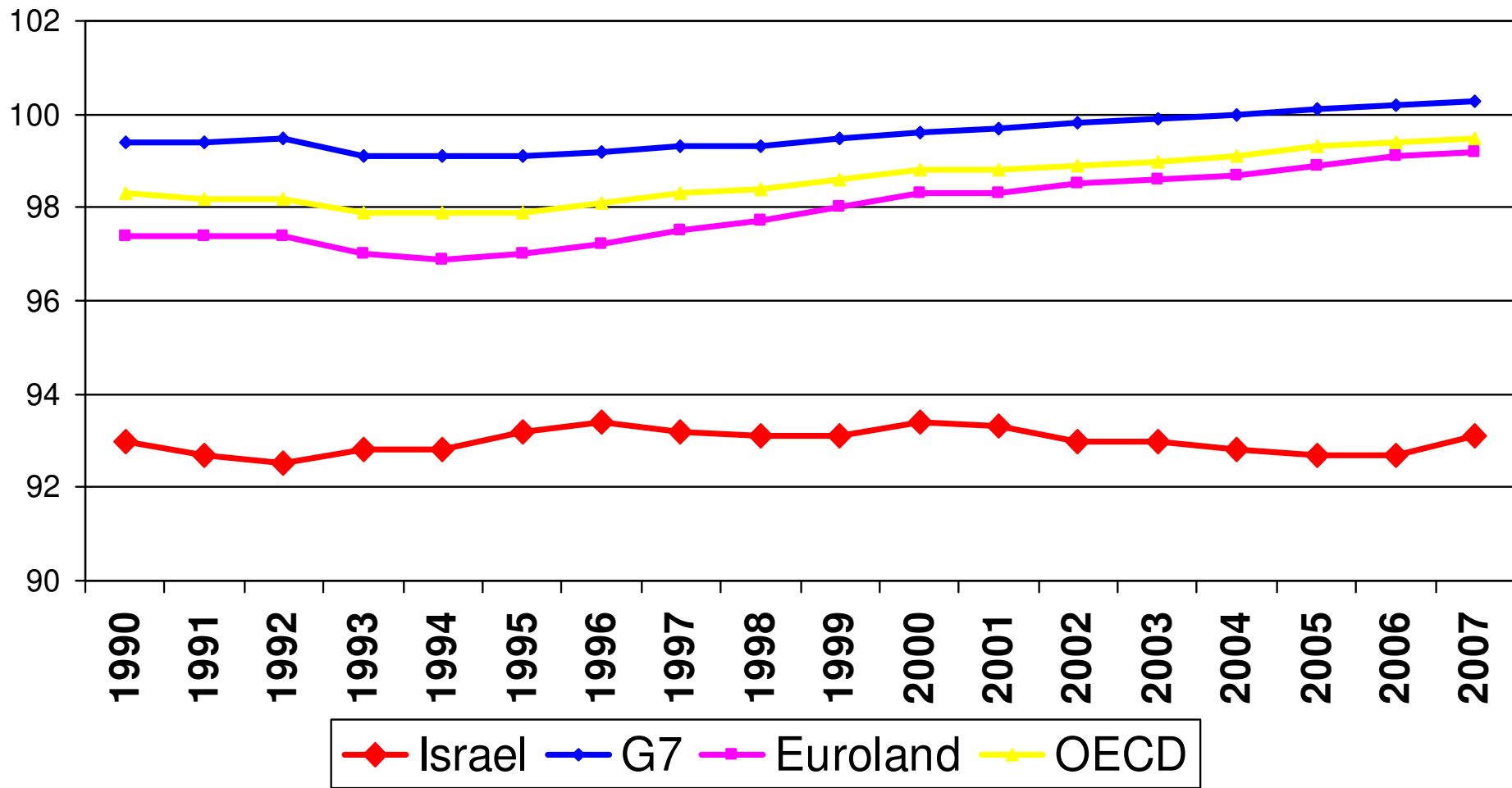


Social Base | 2007

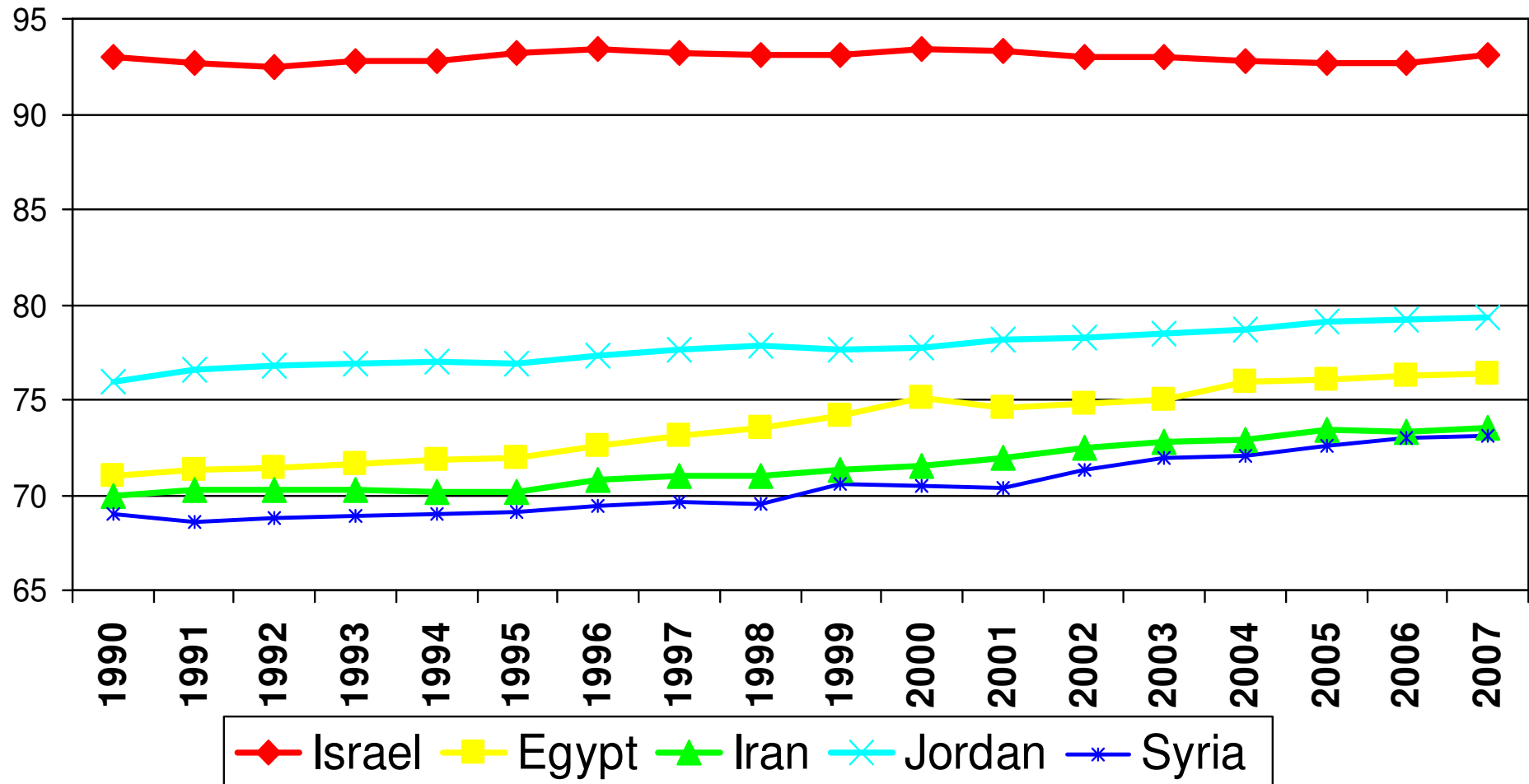


Development of the Social Dimension

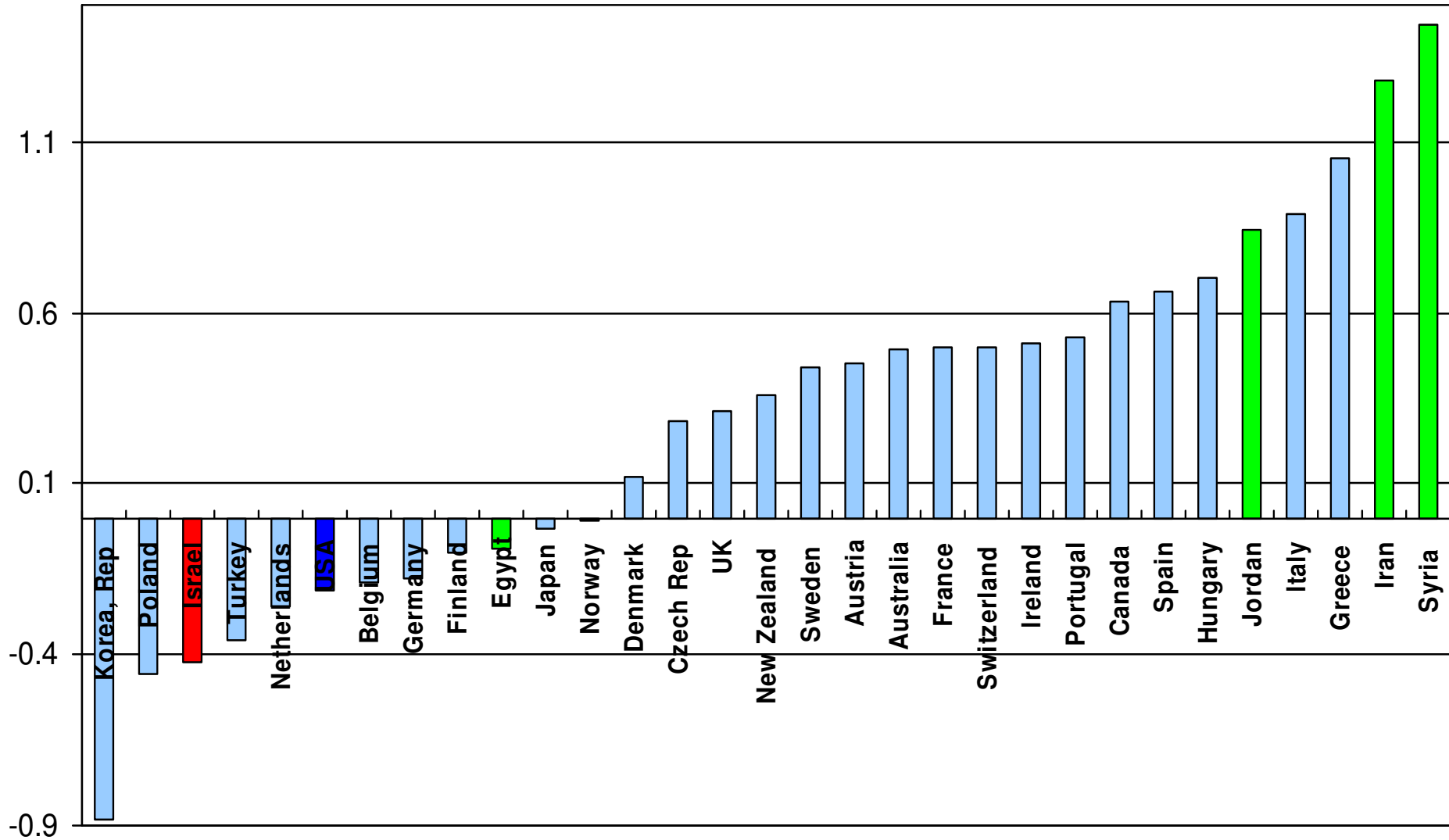
Israel and the Developed Countries



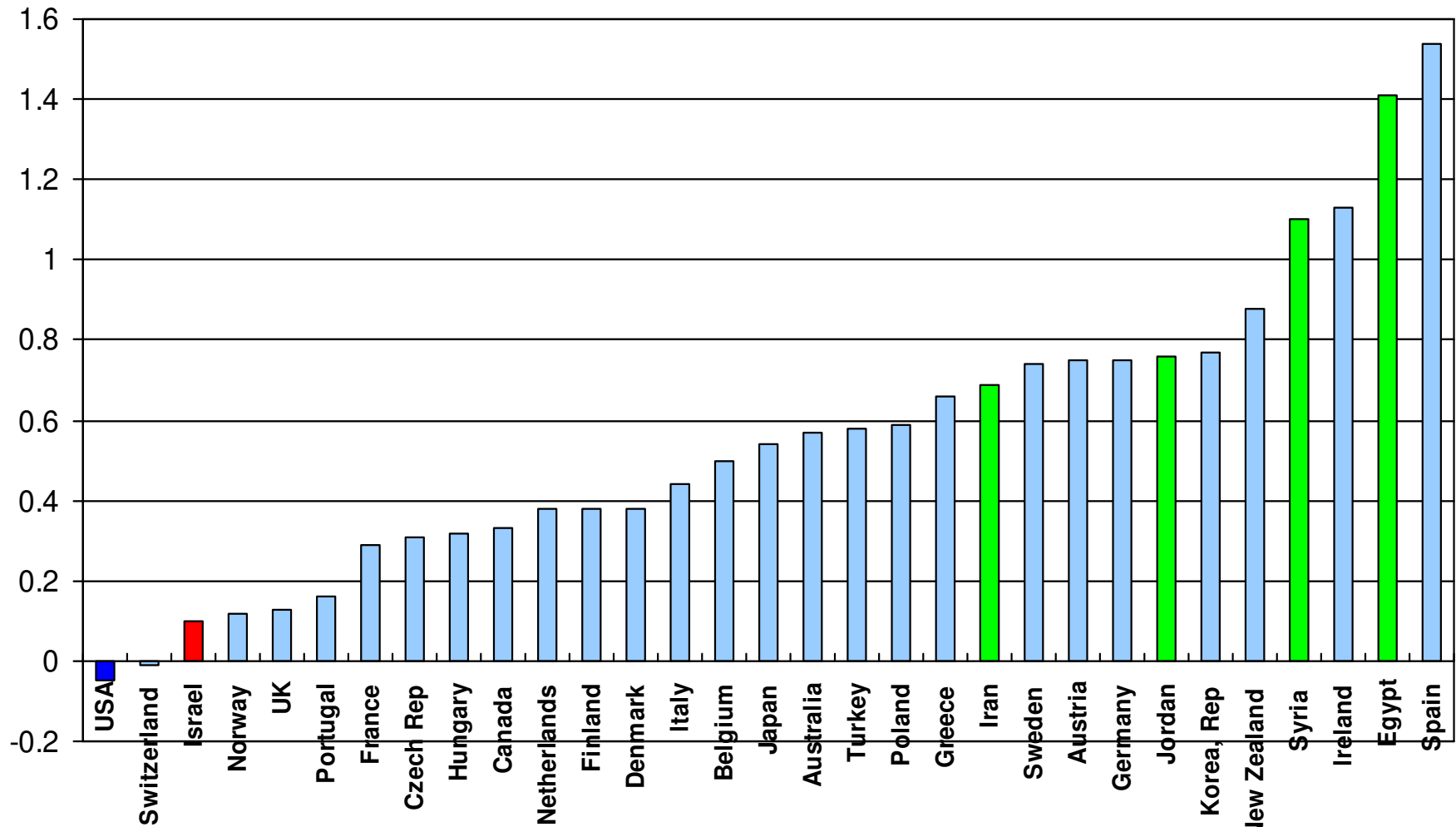
Development of the Social Dimension Israel and Regional Countries



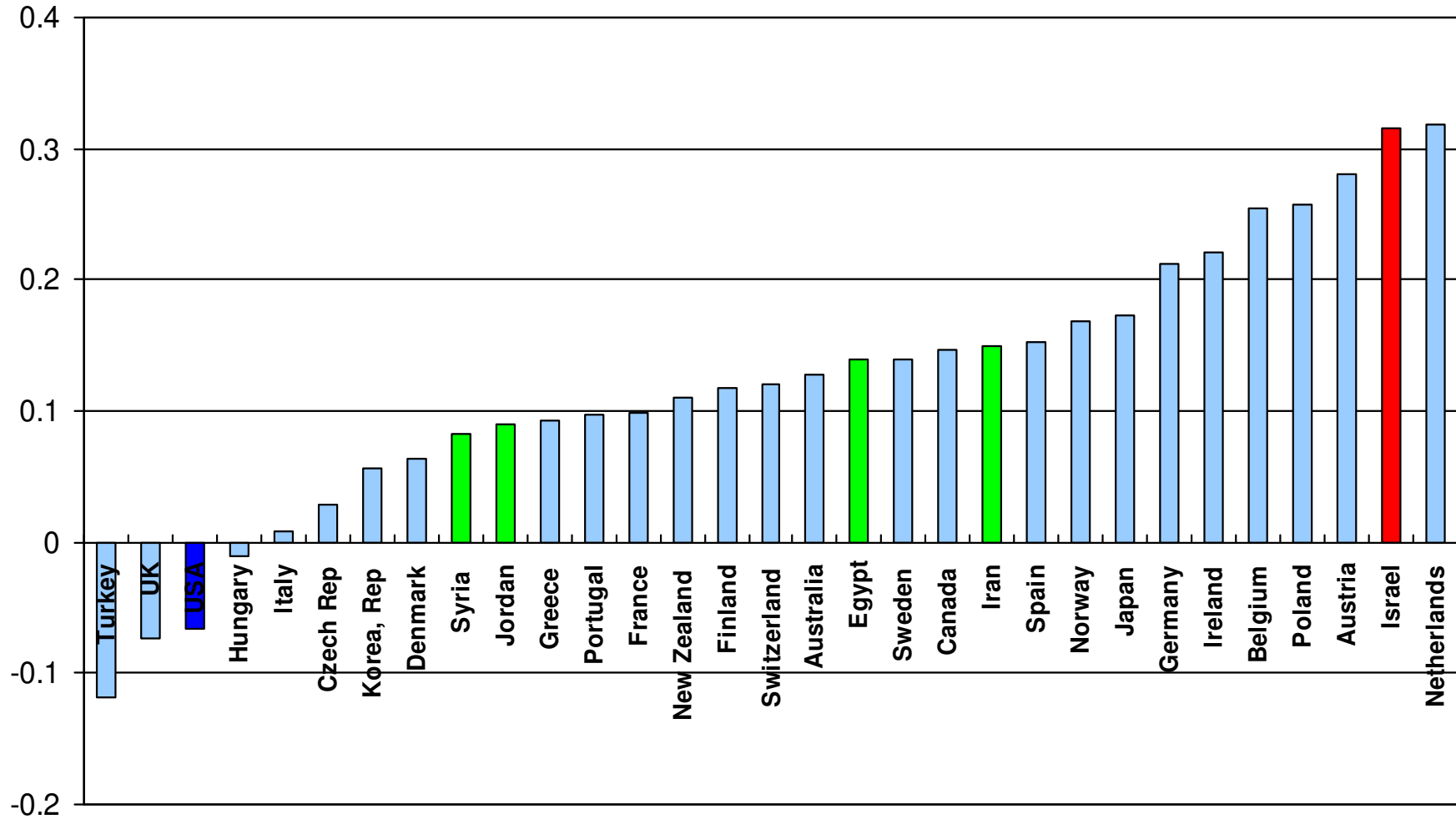
Social Change | 2000-2003



Social Change | 2003-2007



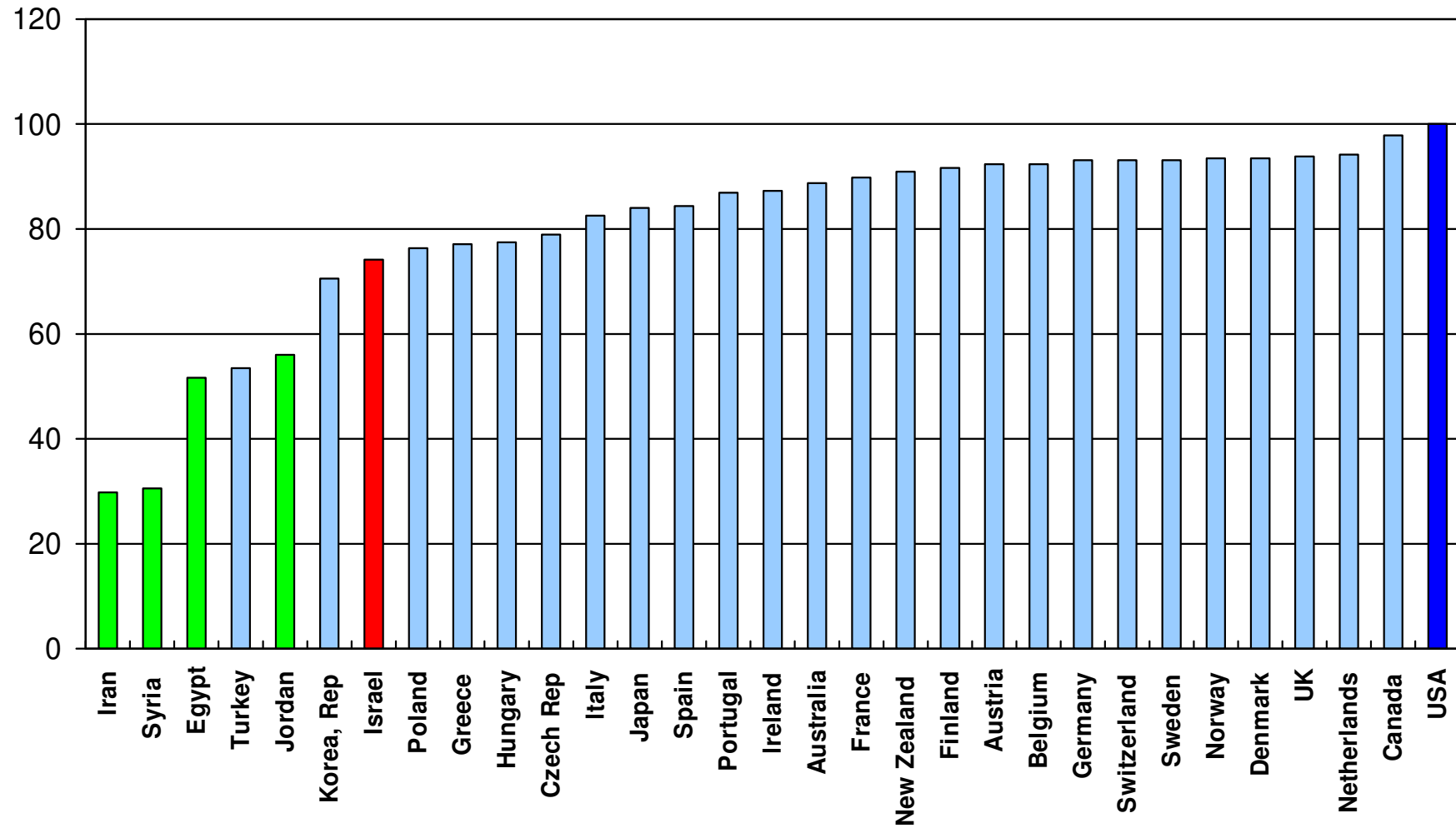
Social Change | Marginal 2007



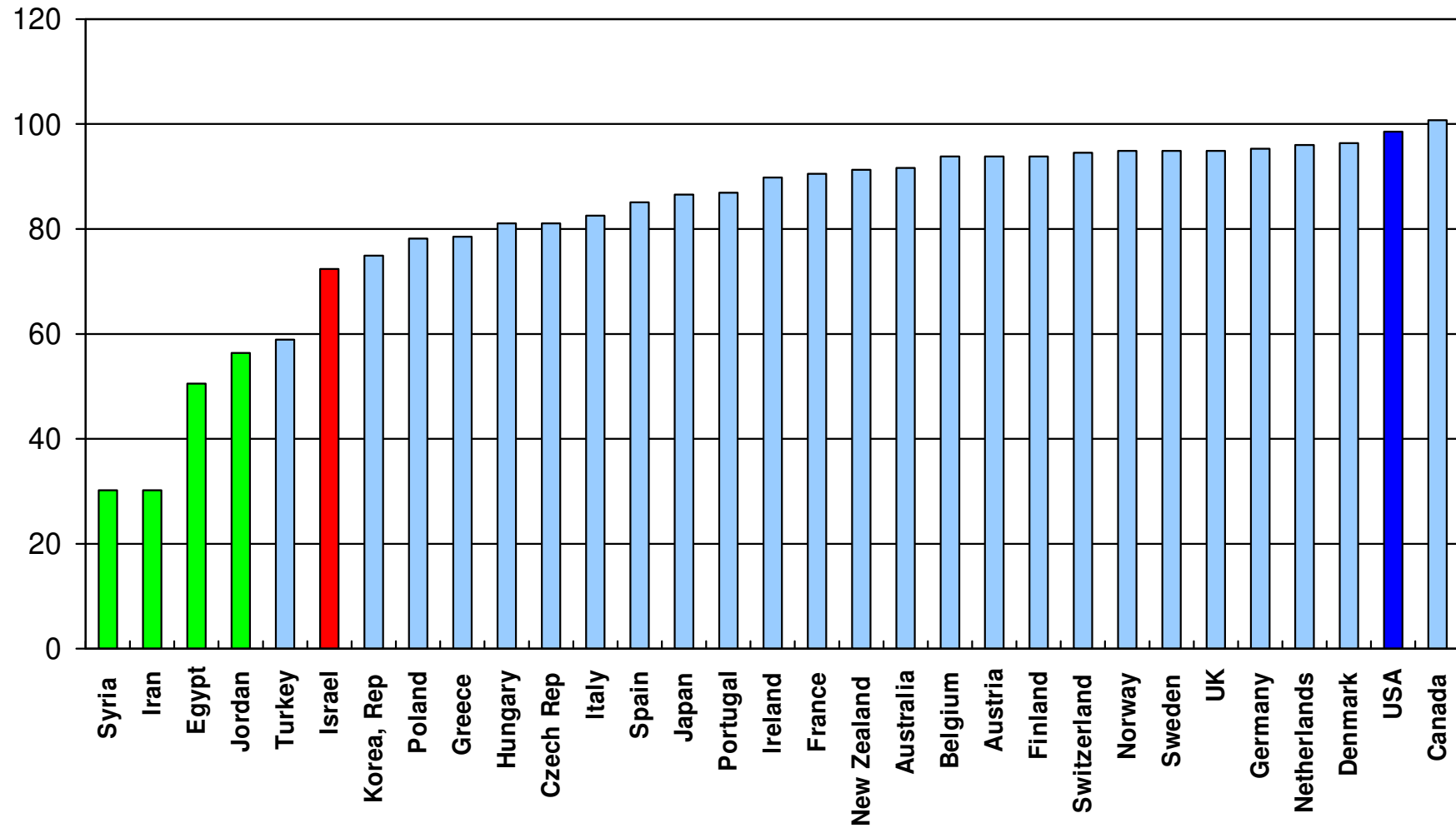
Social Index 2007

1	Denmark	107.1	17	Belgium	98.9
2	Sweden	105.8	18	New Zealand	98.0
3	Norway	104.9	19	Ireland	97.3
4	Finland	103.9	20	Spain	97.2
5	Canada	103.1	21	Portugal	96.7
6	Austria	103.0	22	Italy	96.2
7	Switzerland	102.7	23	Poland	95.1
8	Netherlands	102.5	24	Greece	94.0
9	Australia	102.0	25	Korea, Rep	93.1
10	France	101.2	26	Israel	93.1
11	Germany	100.7	27	Turkey	83.3
12	Japan	100.5	28	Jordan	79.3
13	UK	100.2	29	Egypt	76.4
14	USA	100.0	30	Iran	73.5
15	Hungary	99.5	31	Syria	73.1
16	Czech Rep	99.3			

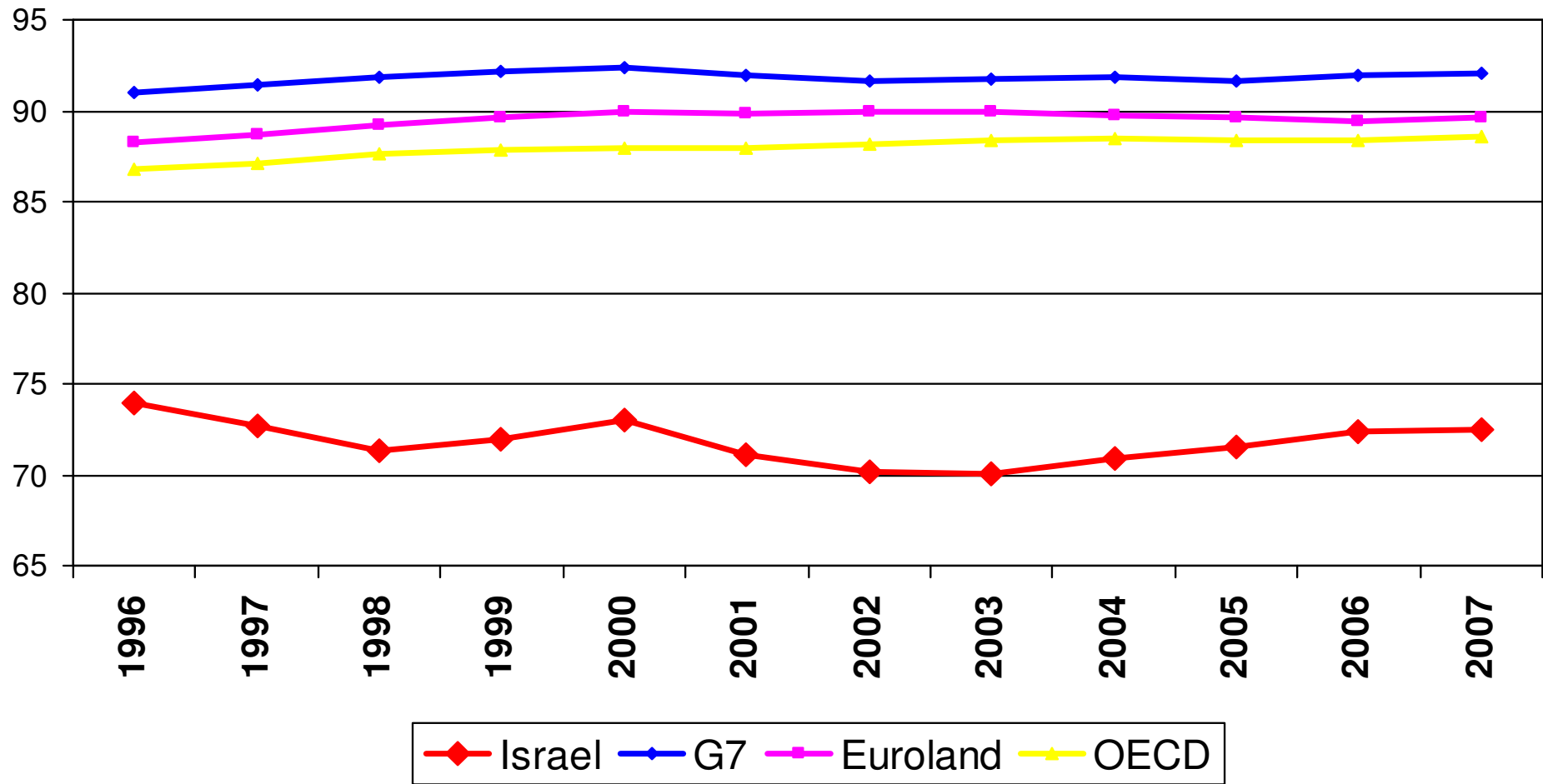
Governmental/ Political Base | 1996



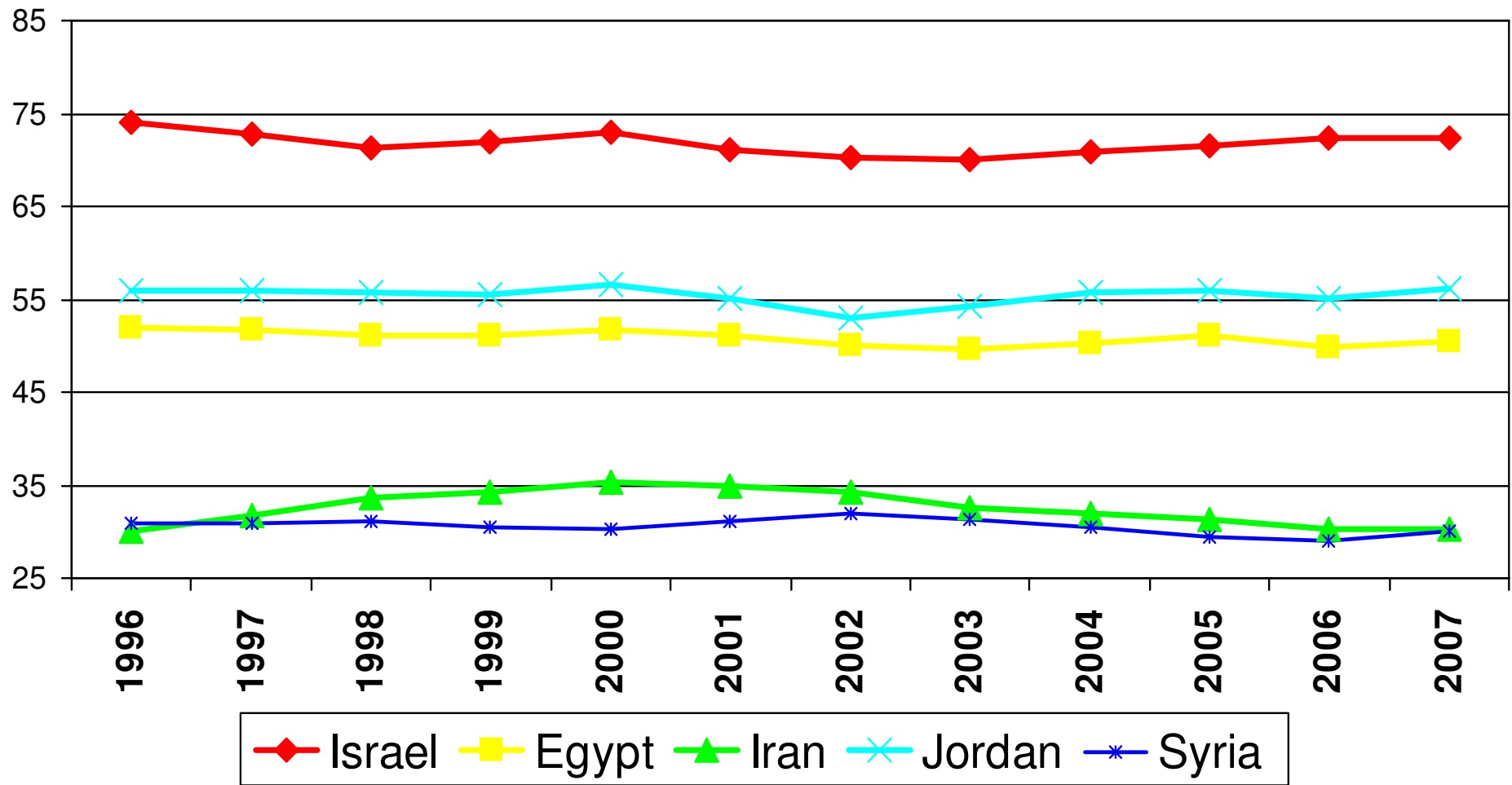
Governmental/ Political Base | 2007



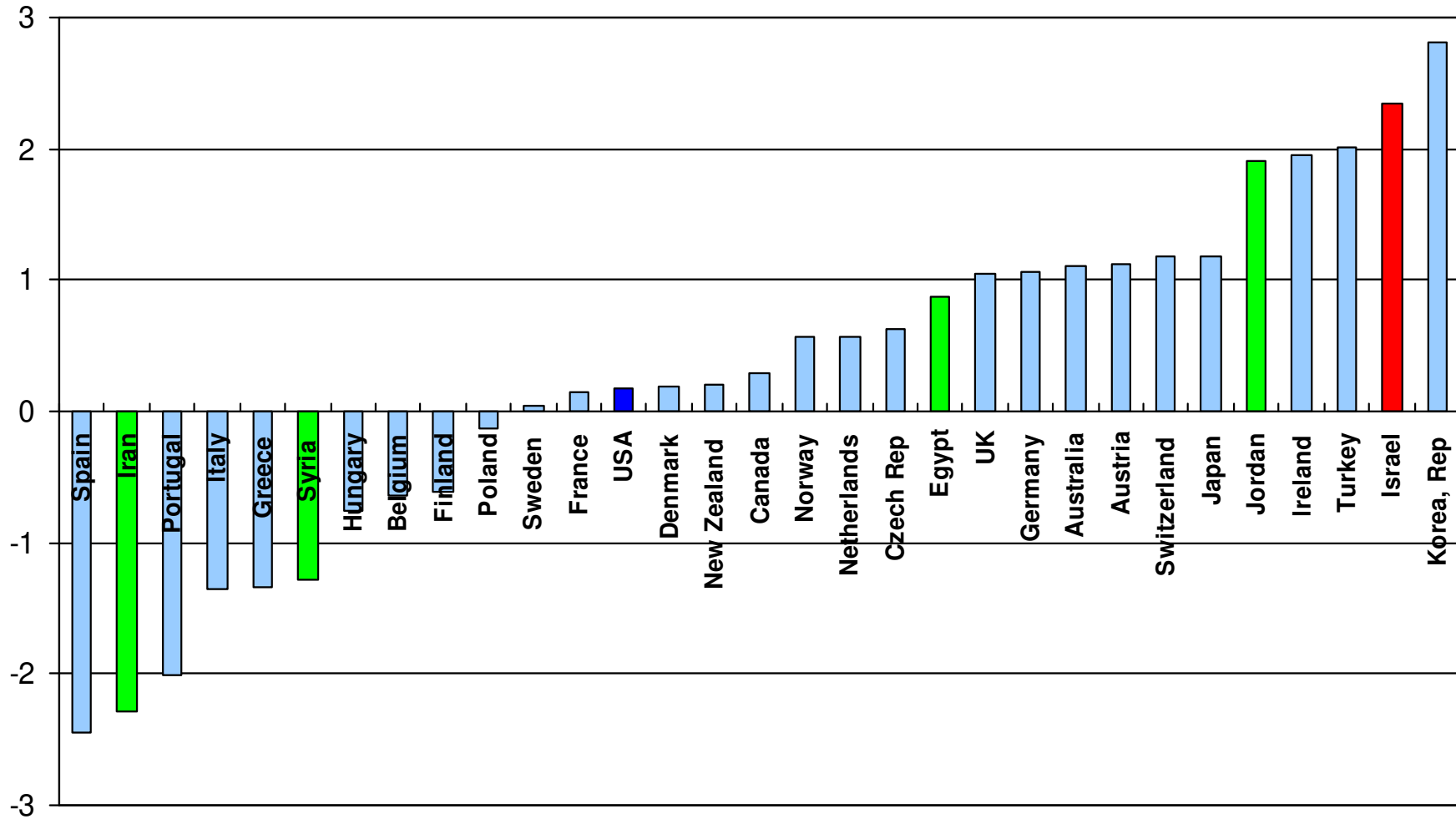
Development of the Governmental/ Political Dimension Israel and the Developed Countries



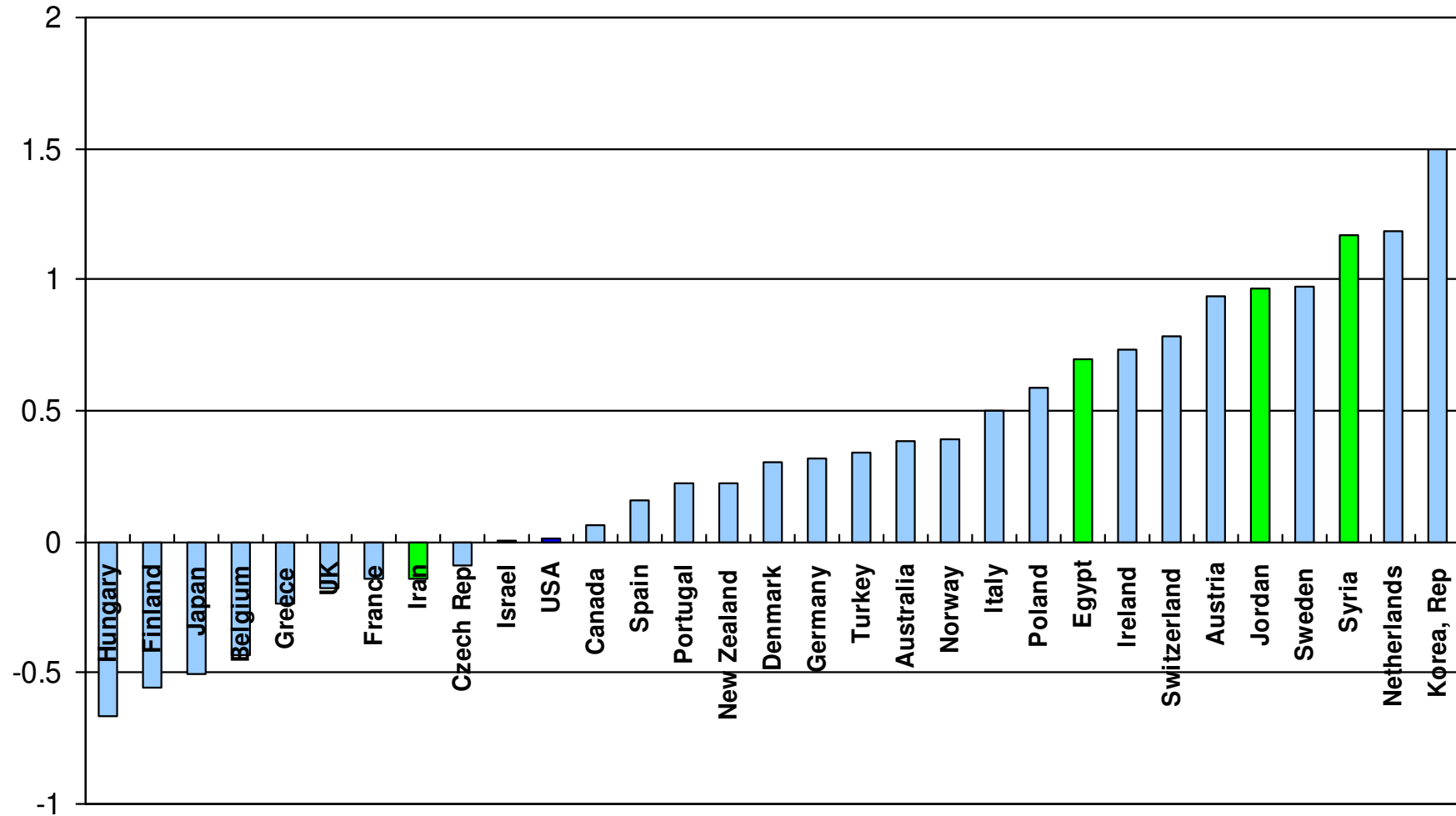
Development of the Governmental/ Political Dimension Israel and Regional Countries



Political Change | 2003-2007



Political Change | Marginal 2007



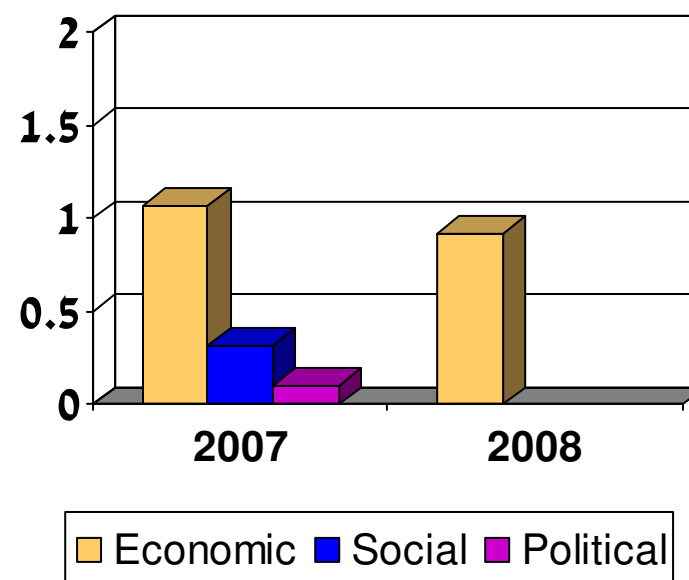
Governmental/ Political Index 2007

1	Canada	100.7	17	Portugal	86.9
2	USA	98.5	18	Japan	86.7
3	Denmark	96.2	19	Spain	85.1
4	Netherlands	96.0	20	Italy	82.7
5	Germany	95.4	21	Czech Rep	81.1
6	UK	95.0	22	Hungary	81.0
7	Sweden	94.9	23	Greece	78.4
8	Norway	94.8	24	Poland	78.3
9	Switzerland	94.6	25	Korea, Rep	75.1
10	Finland	93.9	26	Israel	72.4
11	Austria	93.7	27	Turkey	59.1
12	Belgium	93.6	28	Jordan	56.2
13	Australia	91.5	29	Egypt	50.5
14	New Zealand	91.2	30	Iran	30.2
15	France	90.5	31	Syria	30.1
16	Ireland	89.7			

Summary: Latest Developments

1. The Herzliya Indices of National Security are all positive in 2007. The strongest improvement is in the economic dimension, which continues to evolve in 2008. The improvements in the social and governmental/political dimensions are small, although they represent a positive progress compared with the previous negative trends. We expect that the world crisis will have a negative impact on all the National Security dimensions in 2009.

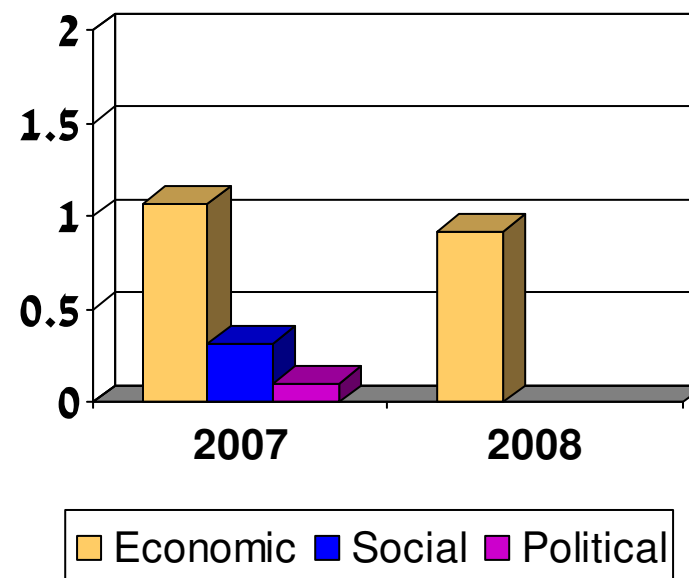
**The Herzliya Indices:
Crisis and Recovery**



Summary: Latest Developments

1. The economic dimension shows a very strong improvement, which is stronger than the improvement observed in the other countries in our sample; nevertheless we do not see a change in the relative position of Israel vis-à-vis the other countries in our sample
2. The improvement in the social dimension represents a change from the negative past trend. The economic improvement had a positive impact in the social dimension through improvements in the rate of participation of women and man and a reduction the chronic rate of unemployment.
3. In the governmental/political dimension, we also record a very slight improvement but the level of this index remains in the lower part of the distribution of our sample.

**The Herzliya Indices:
Crisis and Recovery**

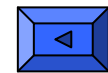


Definition: Political Stability and the Absence of Violence

Political Stability and the Absence of Violence is one aggregate governance indicator.

The indicators in this cluster measure “perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism.” The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens.

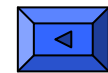
Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.



Definition: Rule of Law

Rule of Law is one aggregate governance indicator.

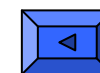
The indicators in this cluster measure “the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of both violent and non-violent crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.” The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens. Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.



Definition: Control of Corruption

Control of Corruption is one aggregate governance indicator.

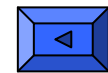
The indicators in this cluster measure “perceptions of corruption, conventionally defined as the exercise of public power for private gain.” The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens. Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.



Definition: Regulatory Quality

Regulatory Quality is one aggregate governance indicator.

The indicators in this cluster measure “the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of burdens imposed by excessive regulation in areas such as foreign trade and business development.” The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens. Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.



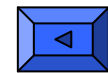
Definition: Government Effectiveness

Government Effectiveness is one aggregate governance indicator.

The indicators in this cluster measure “perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitments to policies into a single grouping.”

The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens.

Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.



Definition: Voice and Accountability

Voice and Accountability is one aggregate governance indicator.

The indicators in this cluster measure the ability of the citizenry to participate in the selection of government and includes the independence of the media. The point estimate of governance of each cluster is based upon polls of experts and surveys of businesspeople and citizens. Governance indicators are oriented so that higher values correspond to better outcomes, on a scale from -2.5 to 2.5.

