

“The Herzliya Indices”

National Security Balance
The Civilian Quantitative
Dimension

Herzliya Conference 2010

Herzliya Indices Team

Team Leader

Prof. Rafi Melnick - IDC Herzliya

Team Members

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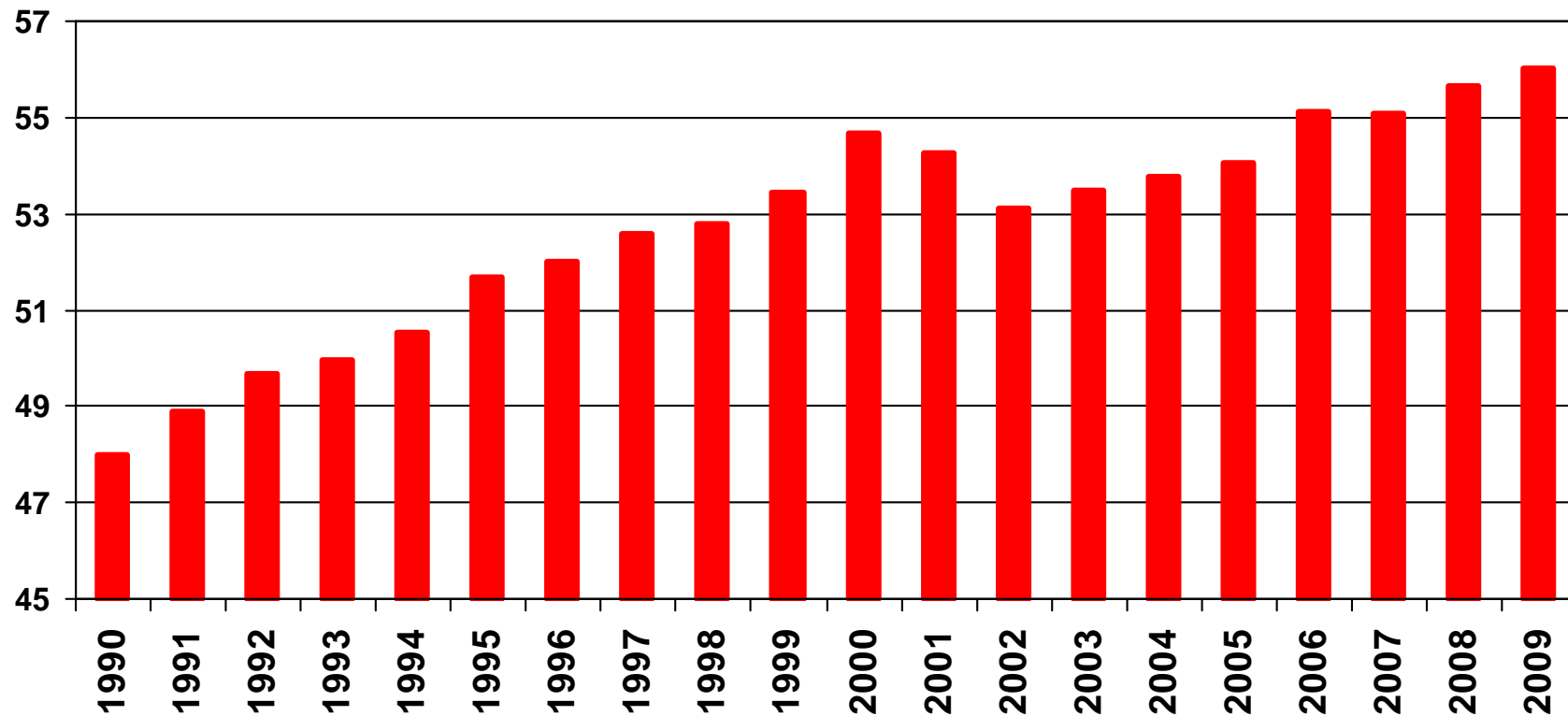
Dr. Michel Strawczynski – Bank of Israel

Mr. Tommy Steiner – IDC Herzliya

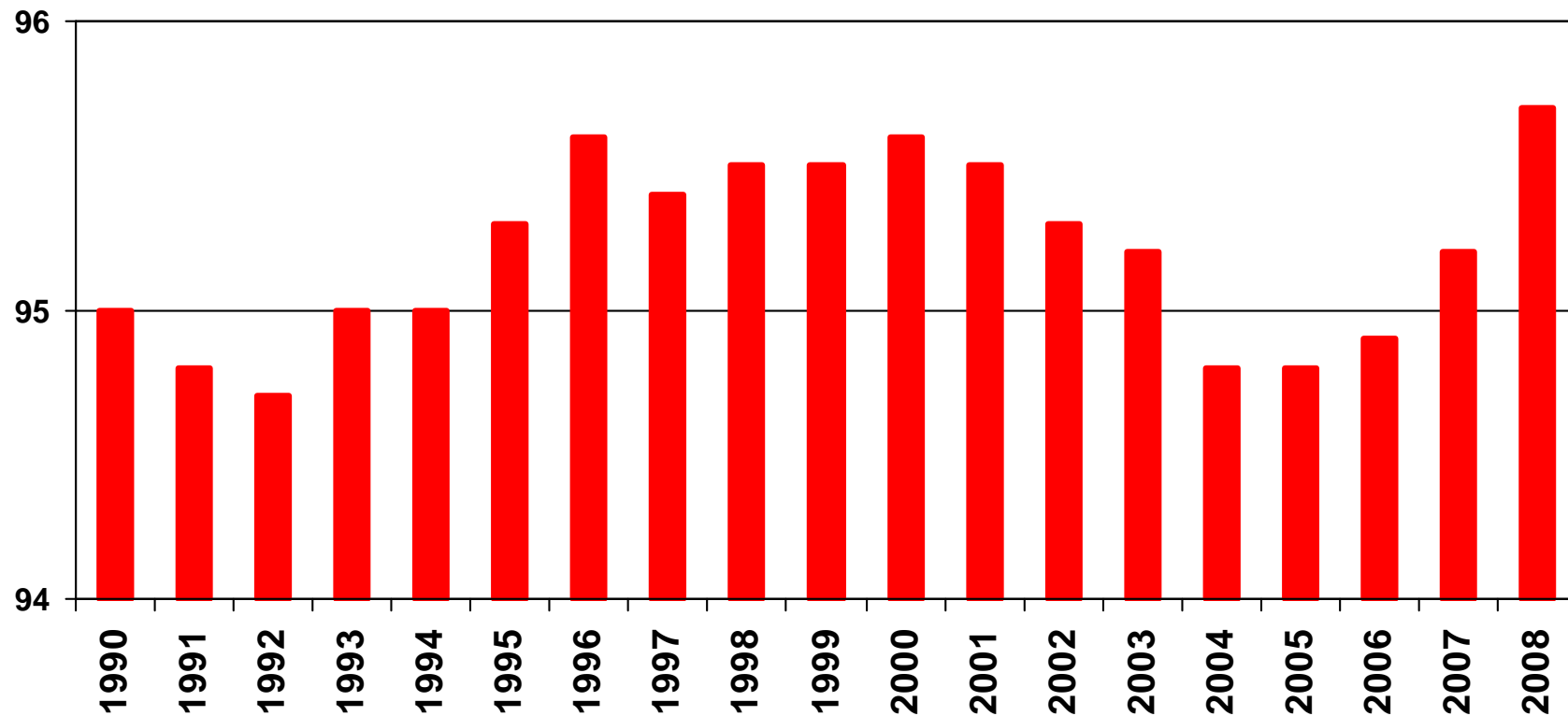
Dr. Zalman Shiffer – Economic Advisor

With thanks to Gila Weinberger (Bank of Israel), and Gilad Skutelsky (IDC Herzliya) for their assistance with research.

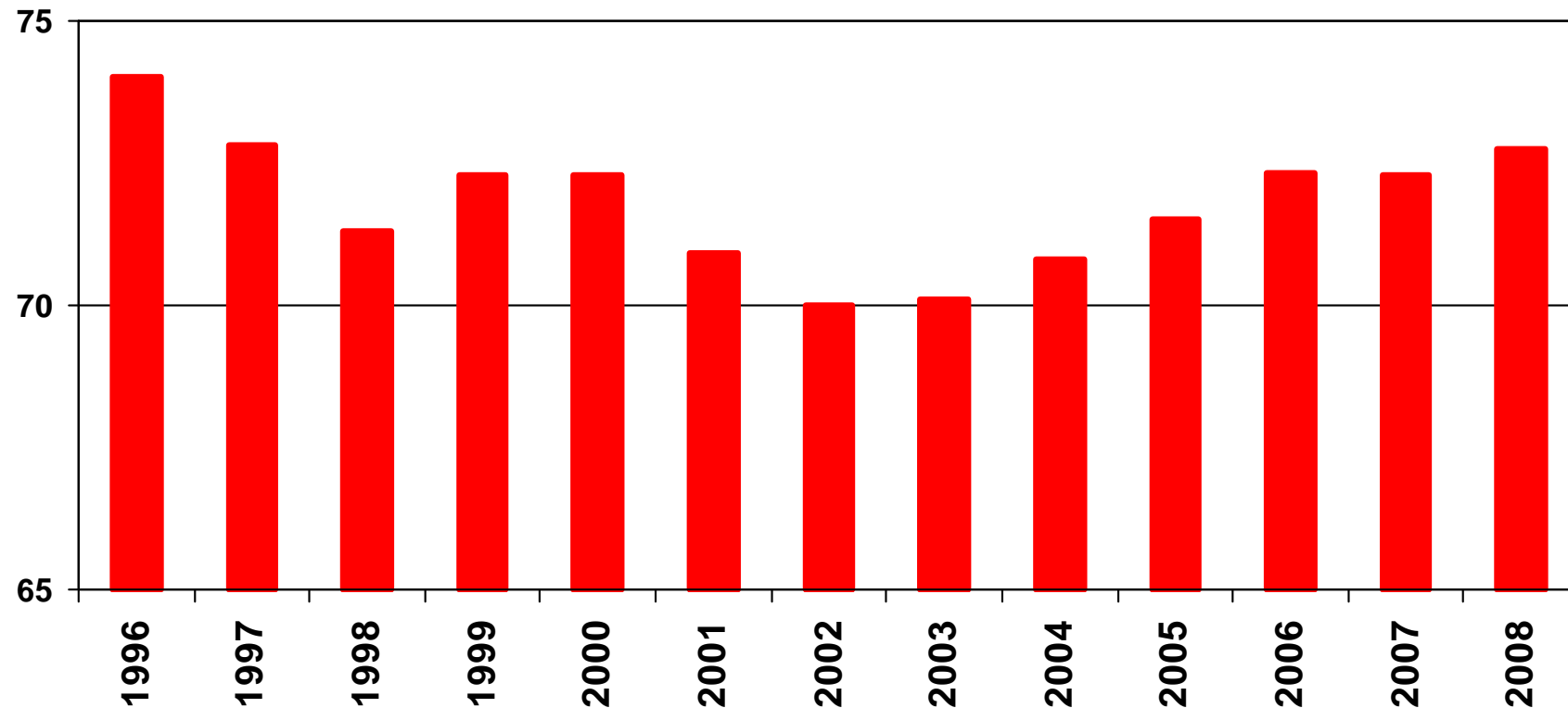
Development of the Economic Dimension in Israel 1990- 2009



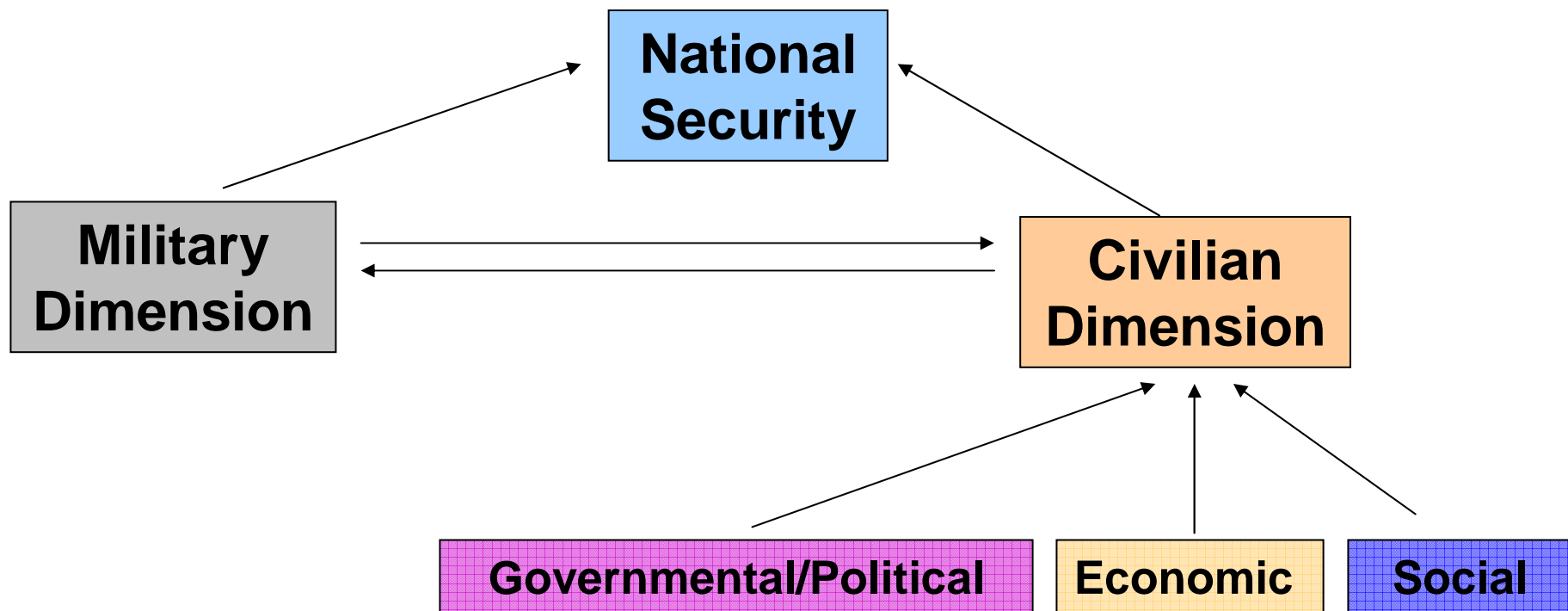
Development of the Social Dimension in Israel 1990- 2008



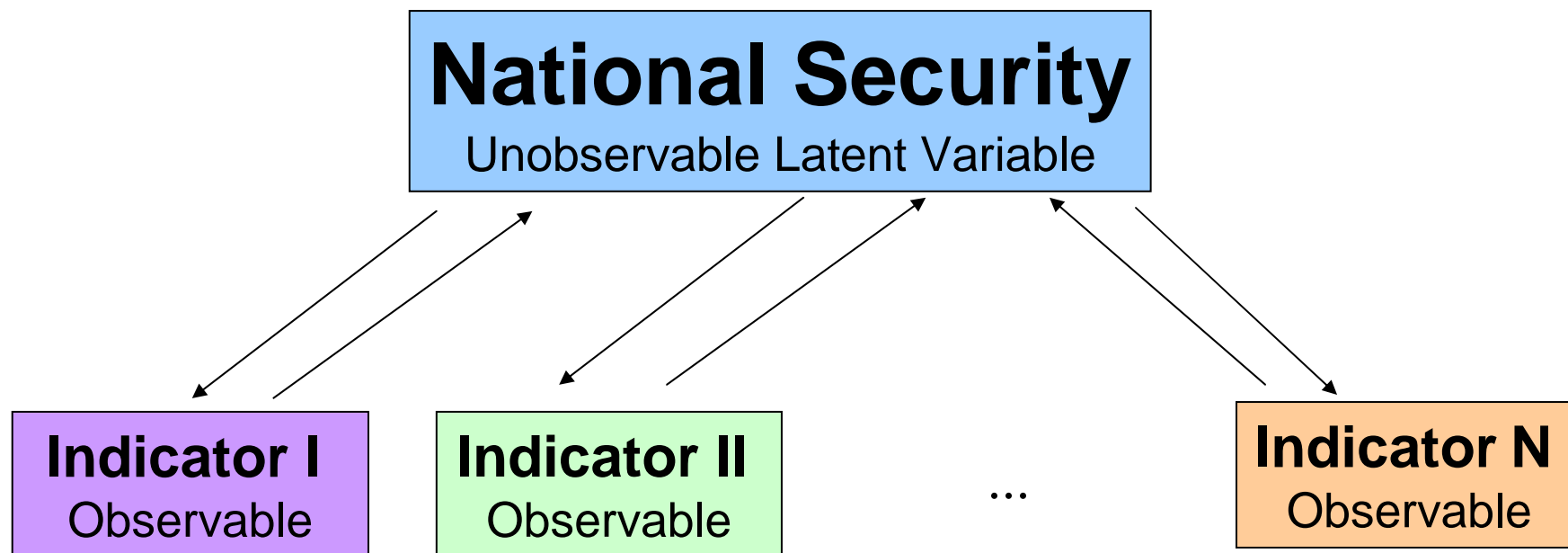
Development of the Governmental/ Political Dimension in Israel 1996- 2008



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 2008

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 2008

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)

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 2008
- Economic data is through 2009

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
- ILO – Key Indicators of the Labour Market
- Israel's Central Bureau of Statistics
- 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 New Cronos

Governmental/Political Data Sources

Primary Sources

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

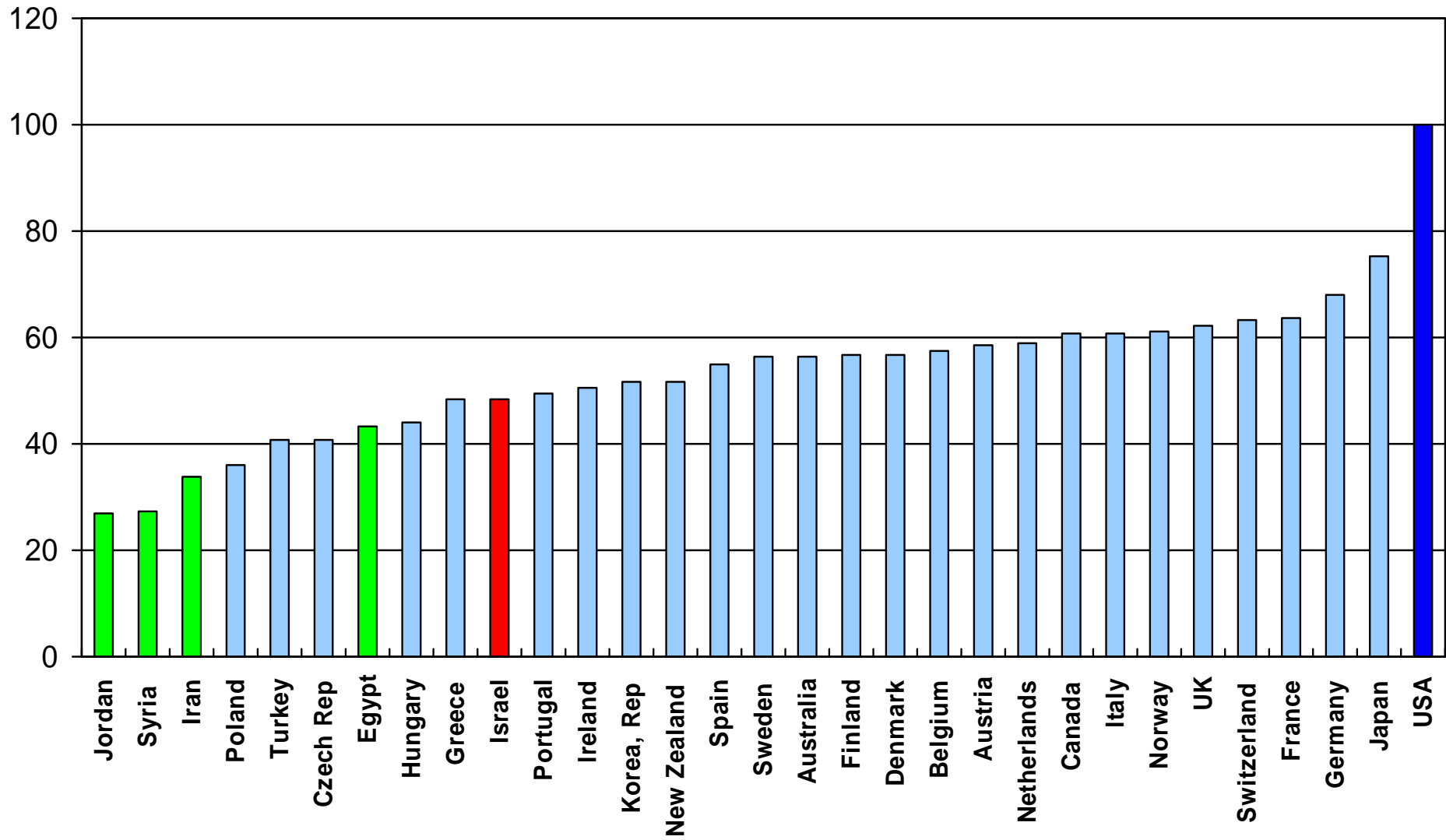
Methodology

- 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

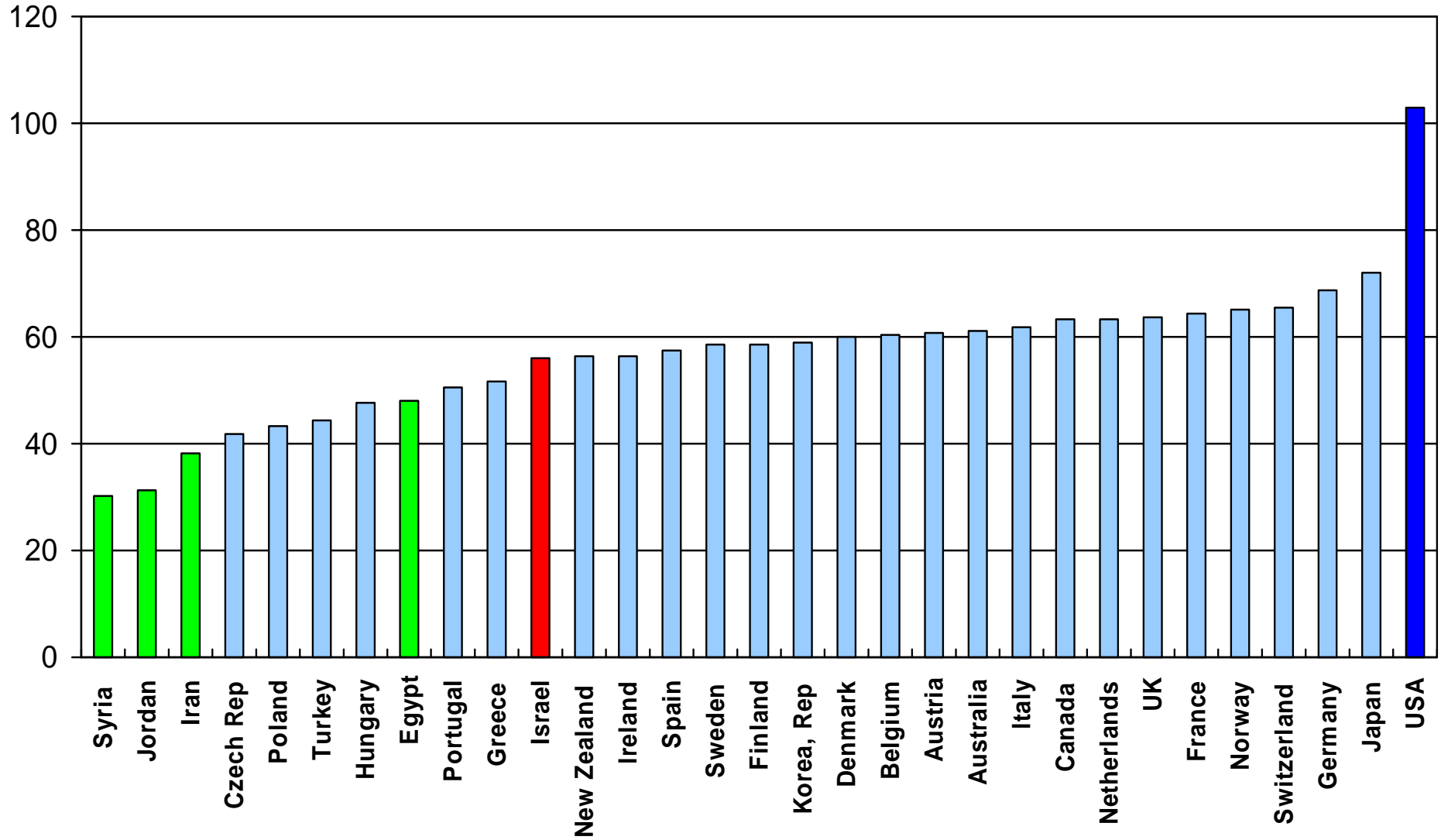
Herzliya Indices 2010

Results

Economic Base | 1990

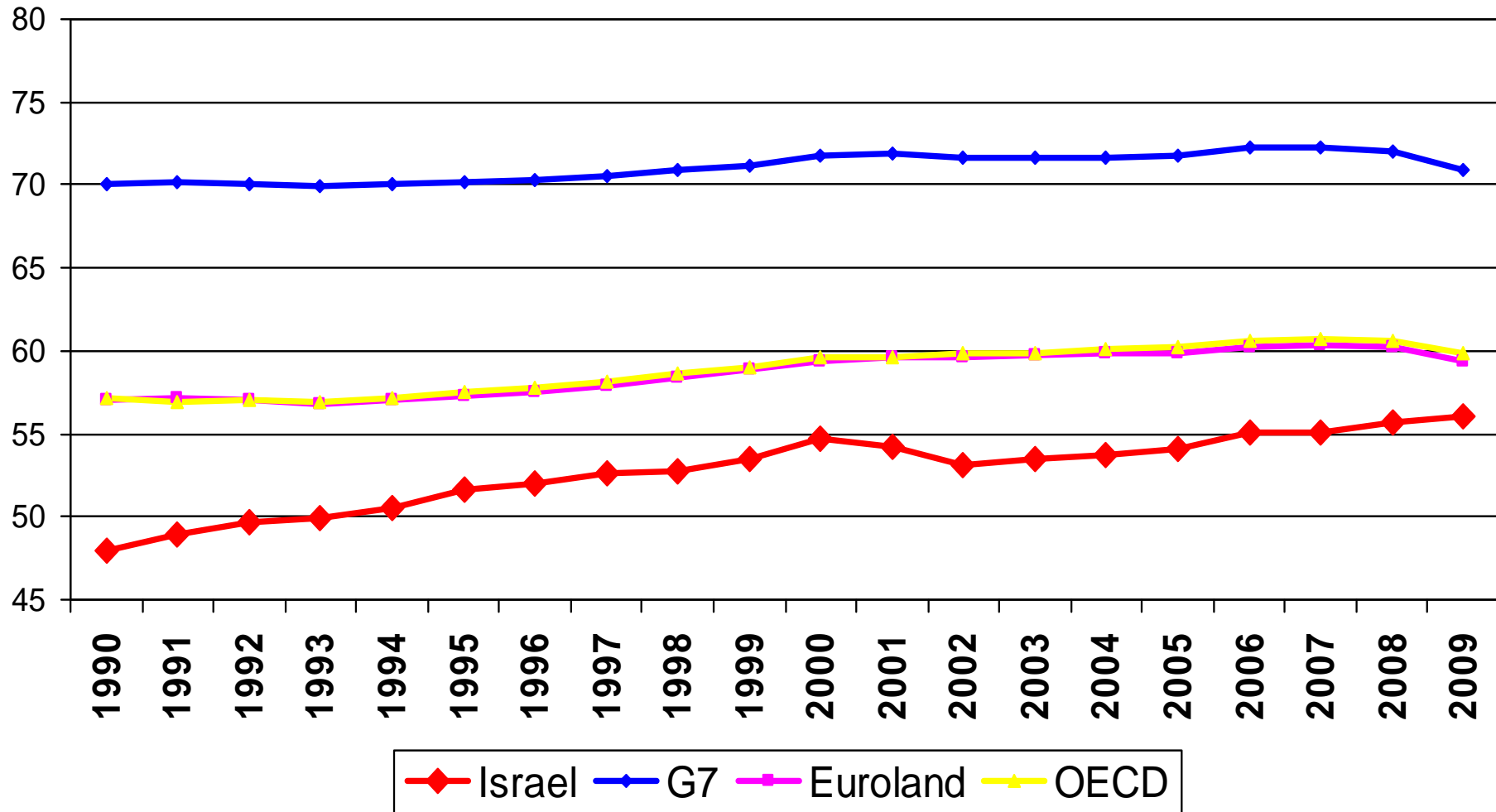


Economic Base | 2009



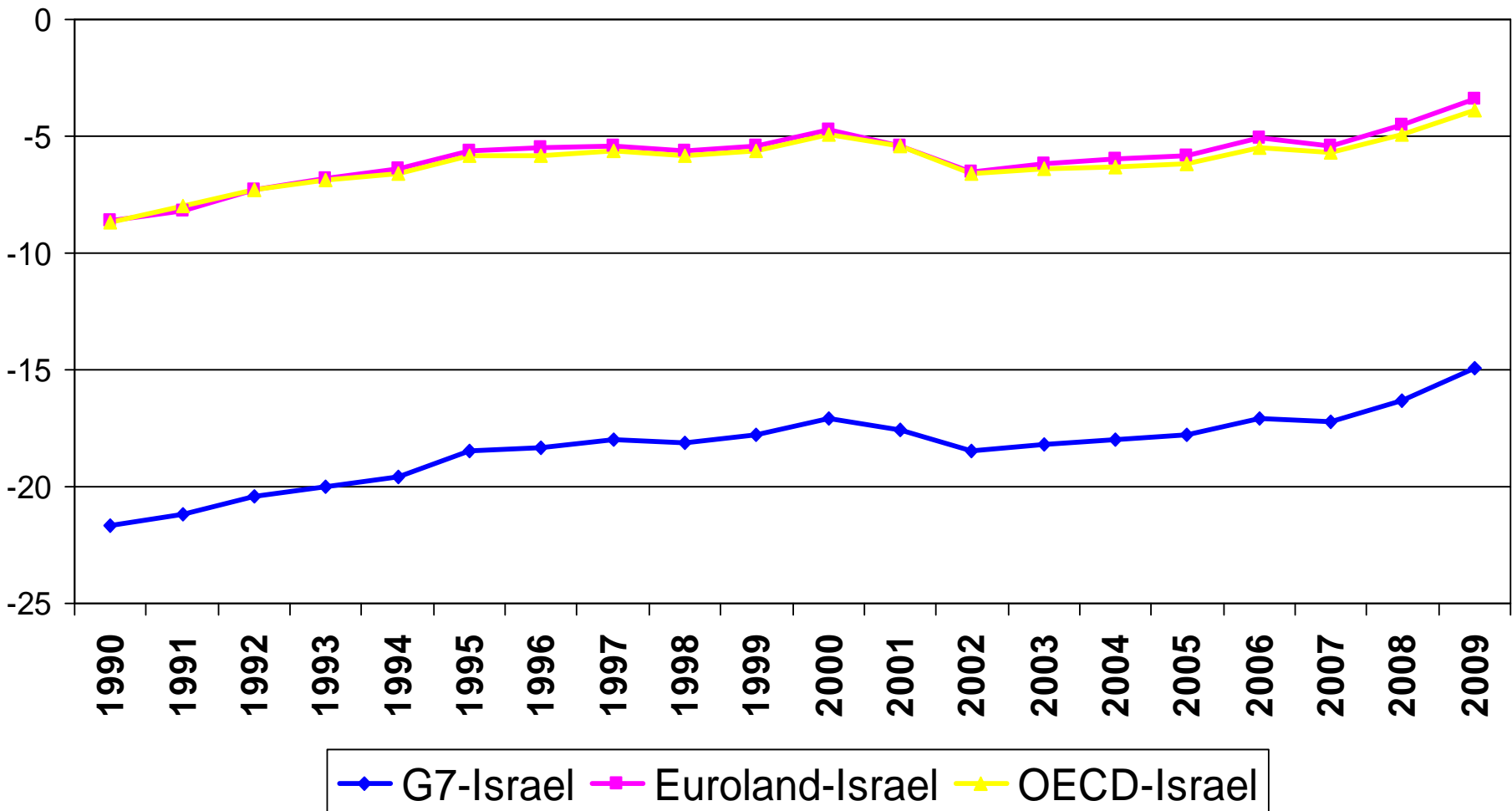
Development of the Economic Dimension

Israel and the Developed Countries

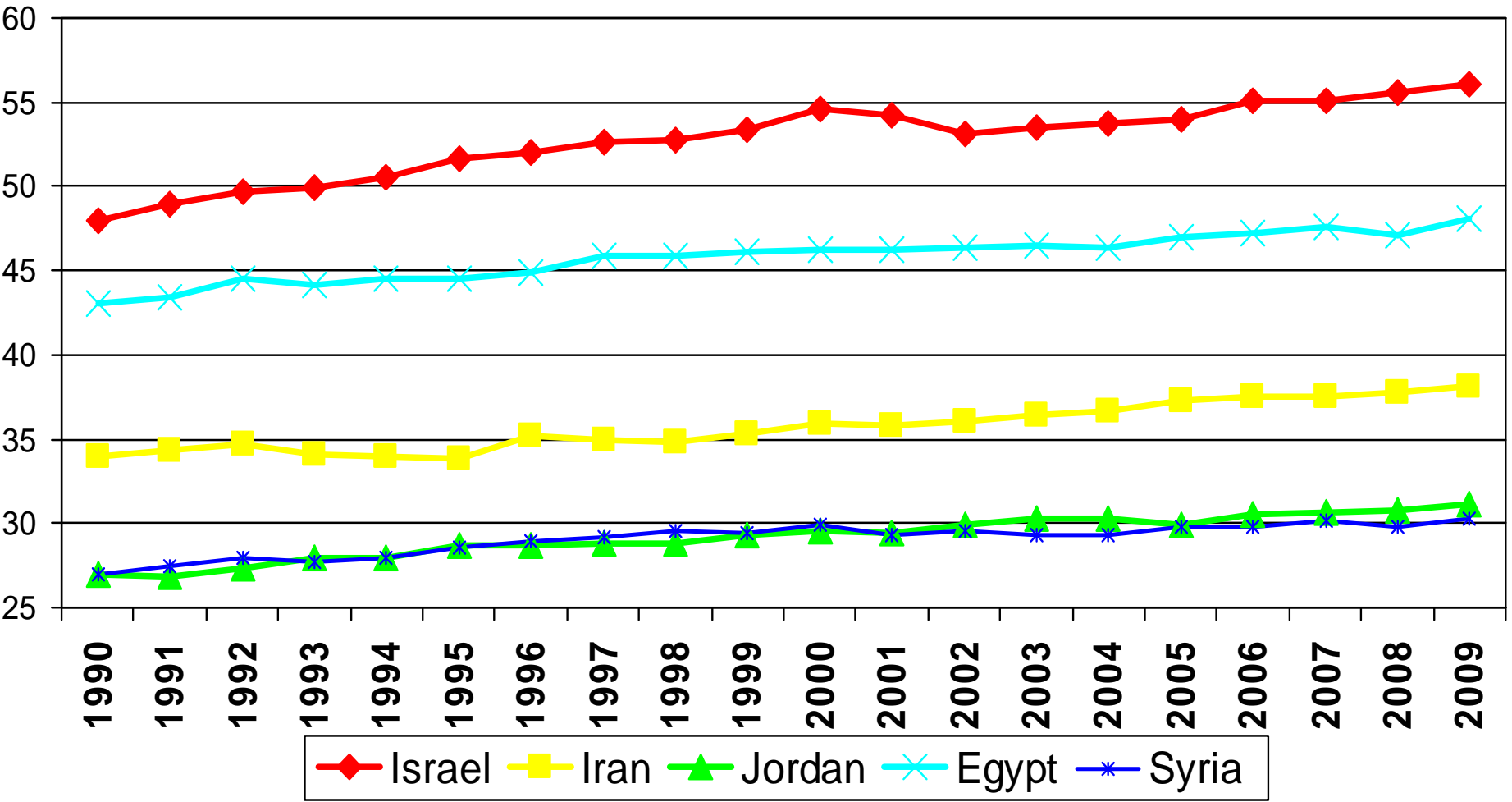


Economic Dimension Gap

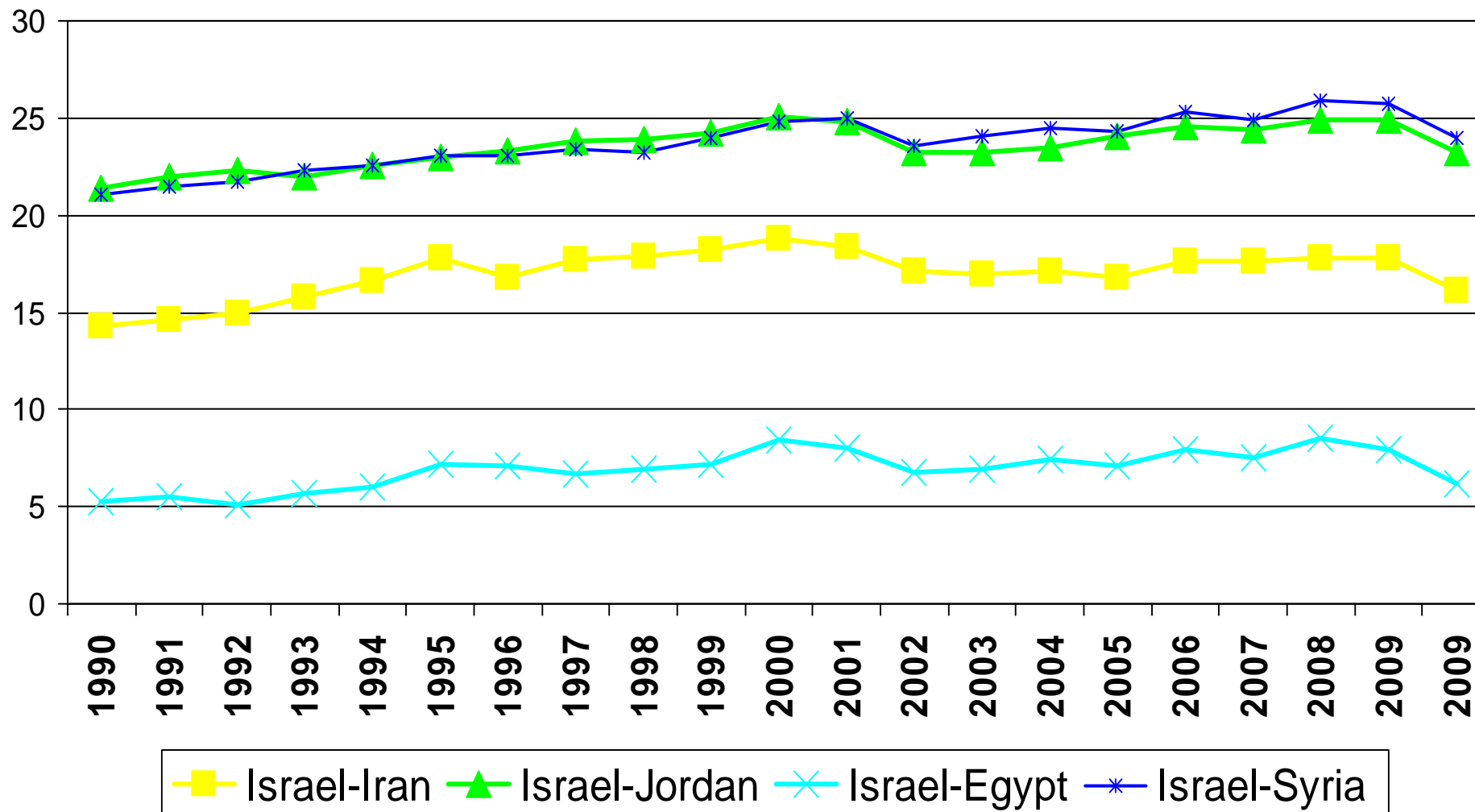
Israel and the Developed Countries



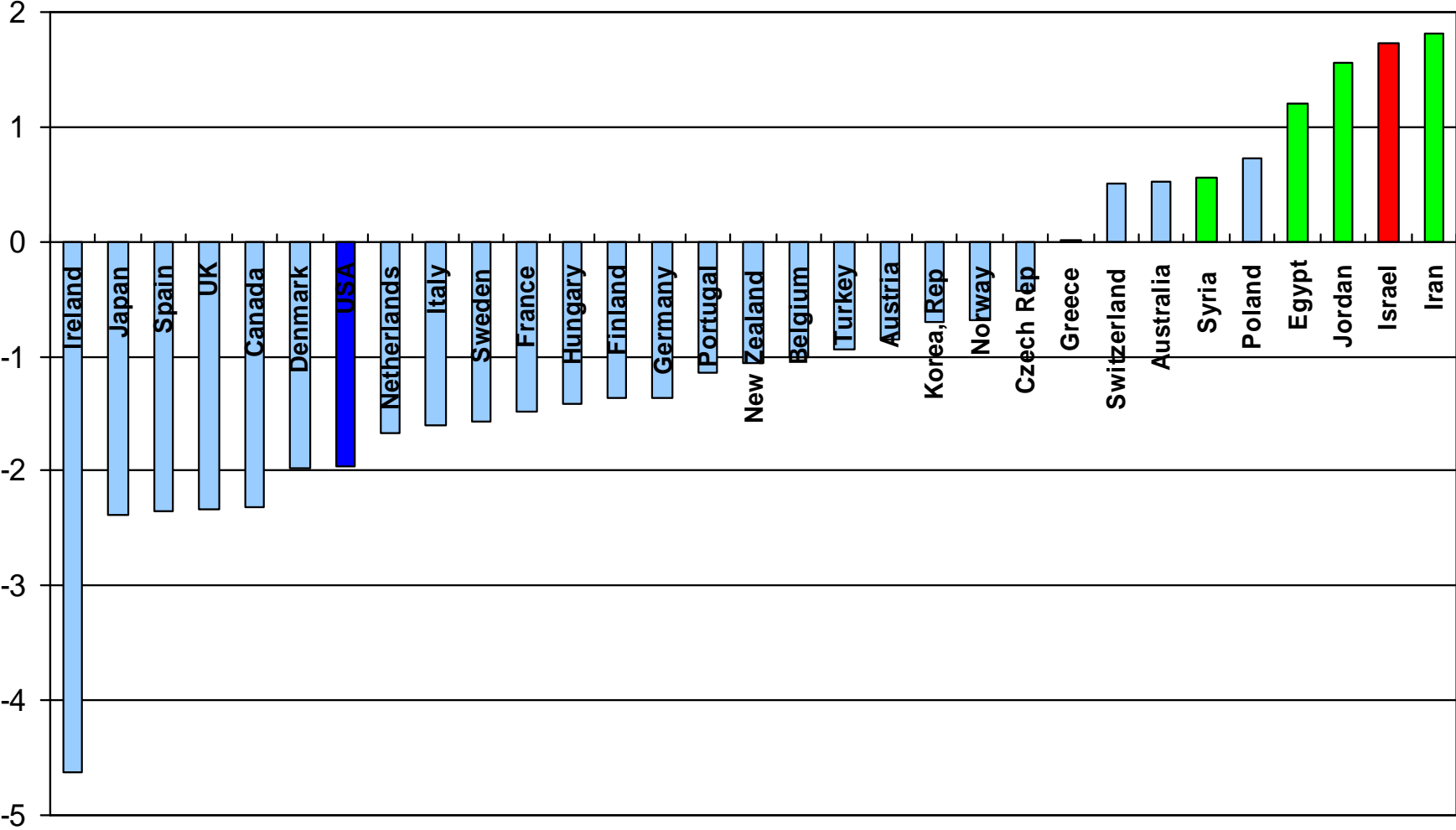
Development of the Economic Dimension Israel and Regional Countries



Economic Dimension Gap Israel and Regional Countries



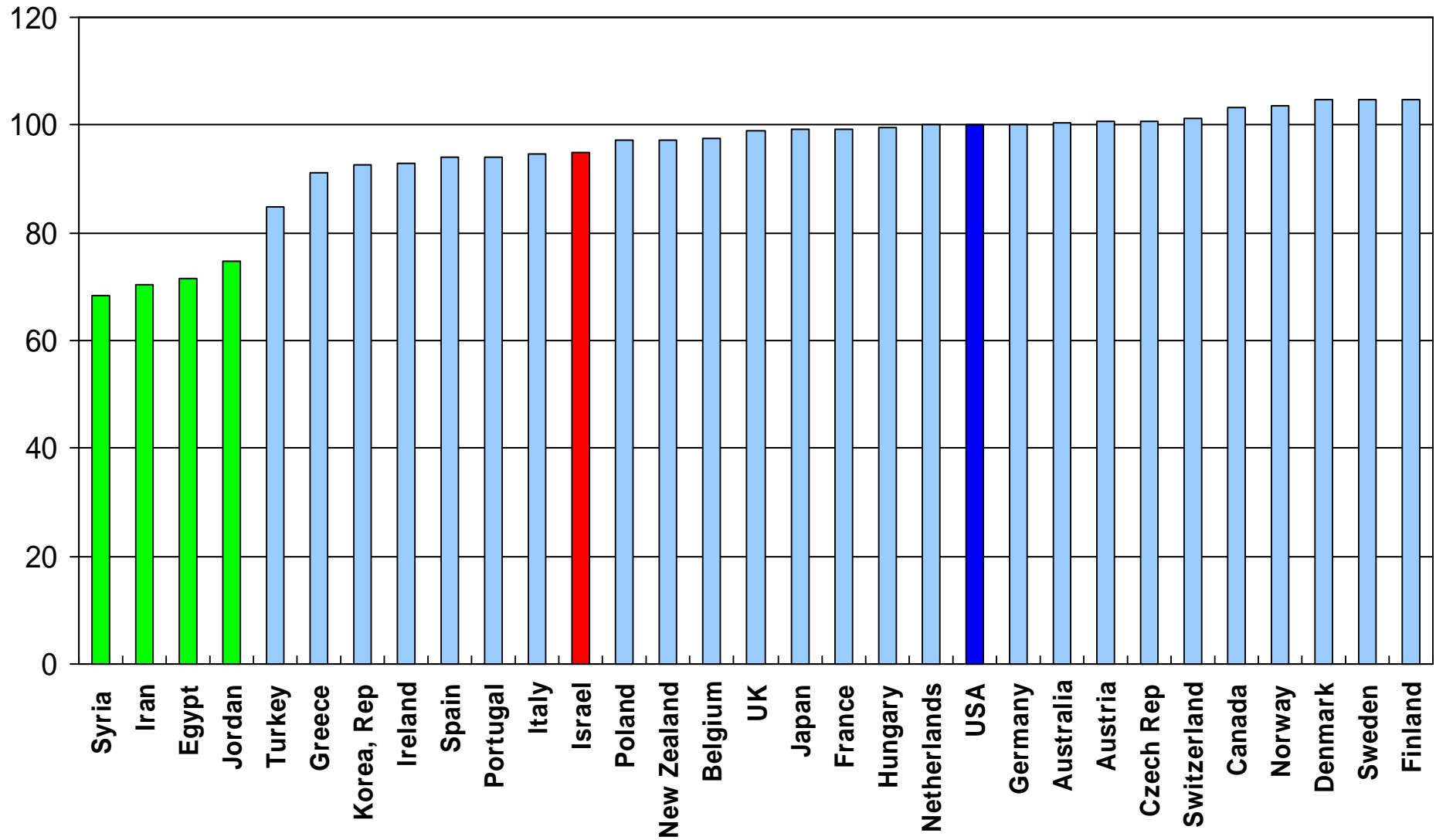
Economic Change (percent) | 2007-2009



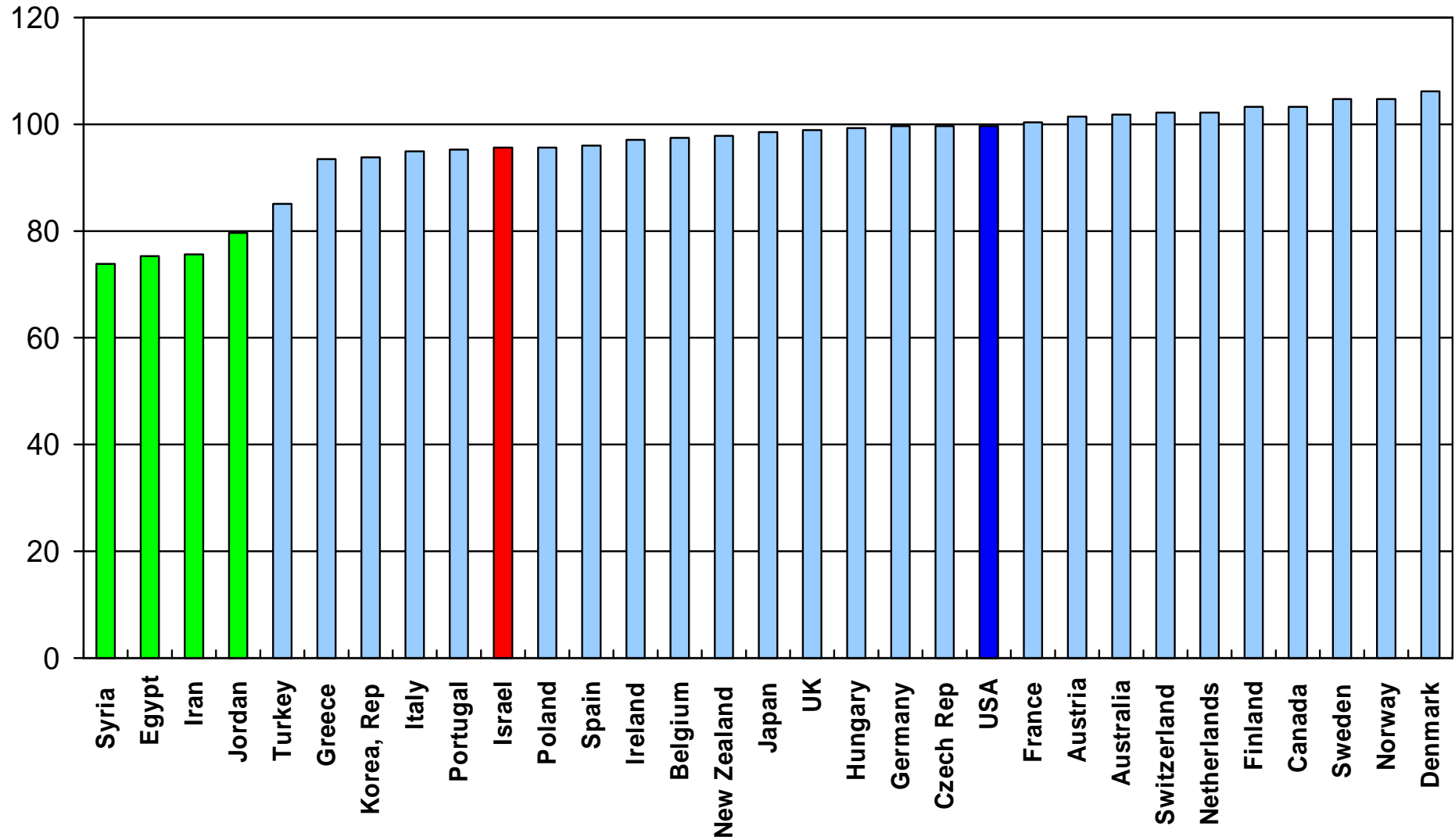
Economic Index 2009

1	USA	102.9	17	Sweden	58.7
2	Japan	72.0	18	Spain	57.4
3	Germany	68.8	19	Ireland	56.5
4	Switzerland	65.3	20	New Zealand	56.5
5	Norway	65.0	21	Israel	56.0
6	France	64.2	22	Greece	51.7
7	UK	63.6	23	Portugal	50.6
8	Netherlands	63.3	24	Egypt	48.1
9	Canada	63.2	25	Hungary	47.6
10	Italy	61.7	26	Turkey	44.2
11	Australia	61.1	27	Poland	43.3
12	Austria	60.6	28	Czech Rep	41.7
13	Belgium	60.5	29	Iran	38.2
14	Denmark	60.1	30	Jordan	31.1
15	Korea, Rep	58.9	31	Syria	30.3
16	Finland	58.7			

Social Base | 1990

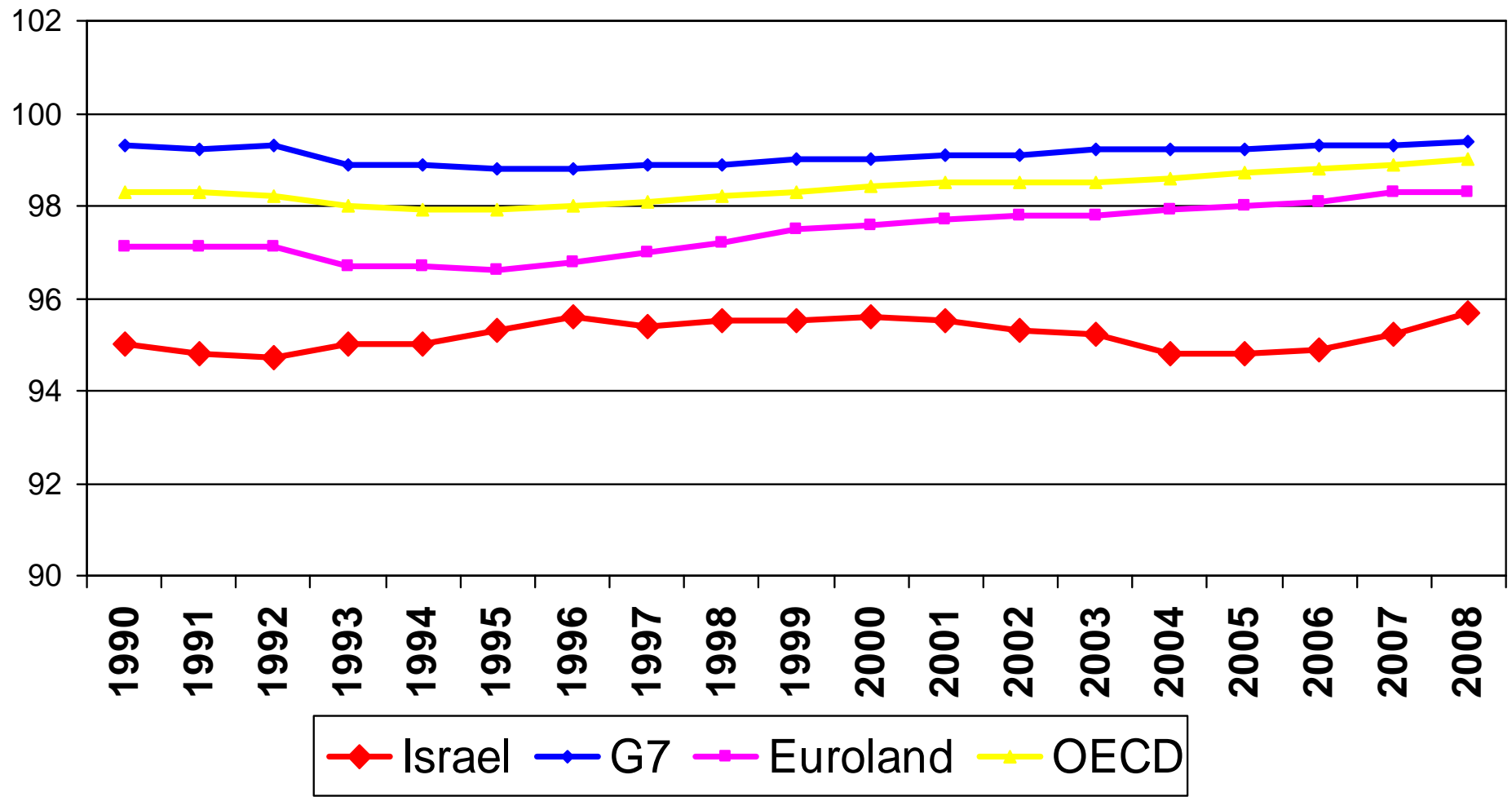


Social Base | 2008

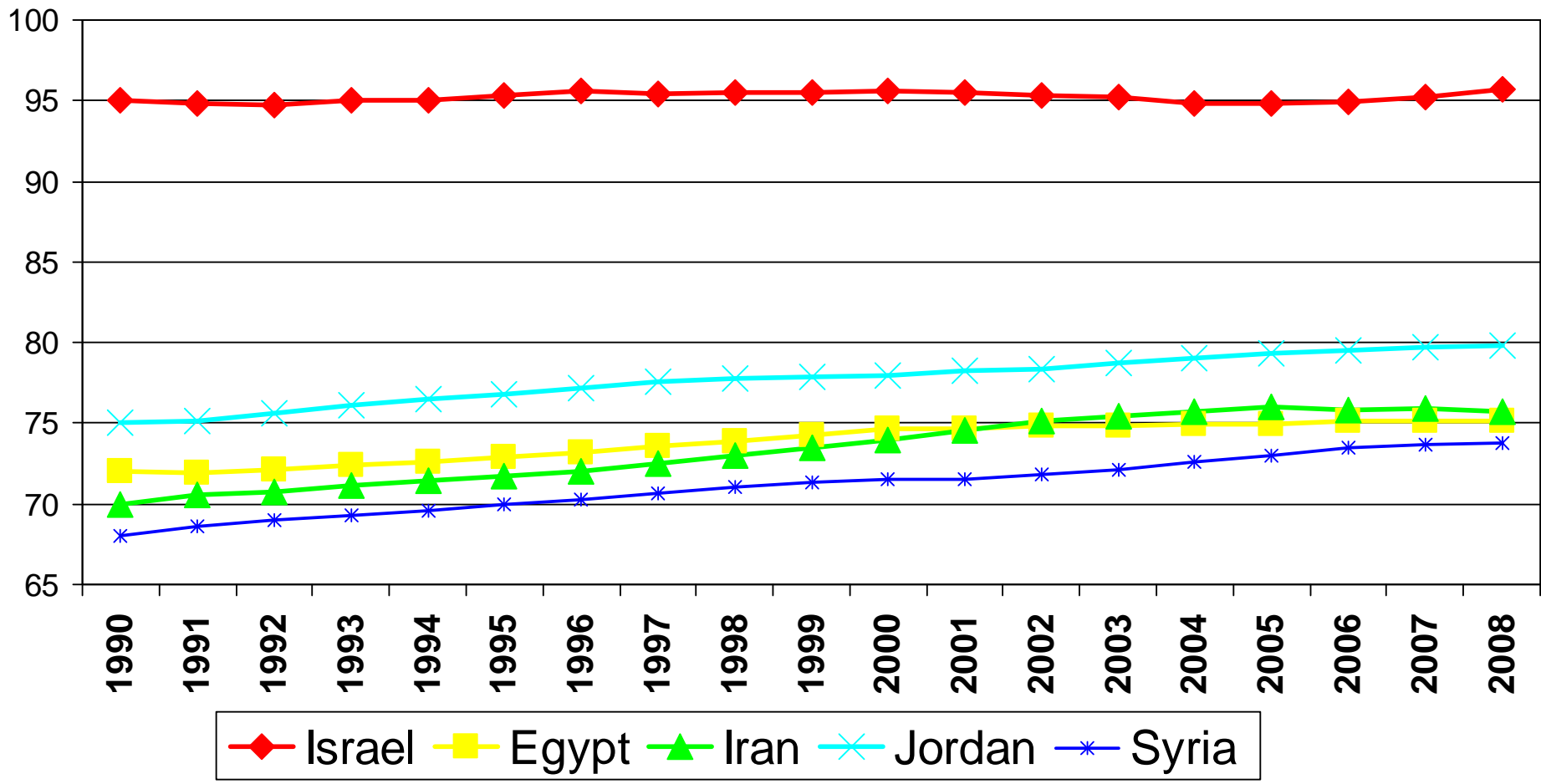


Development of the Social Dimension

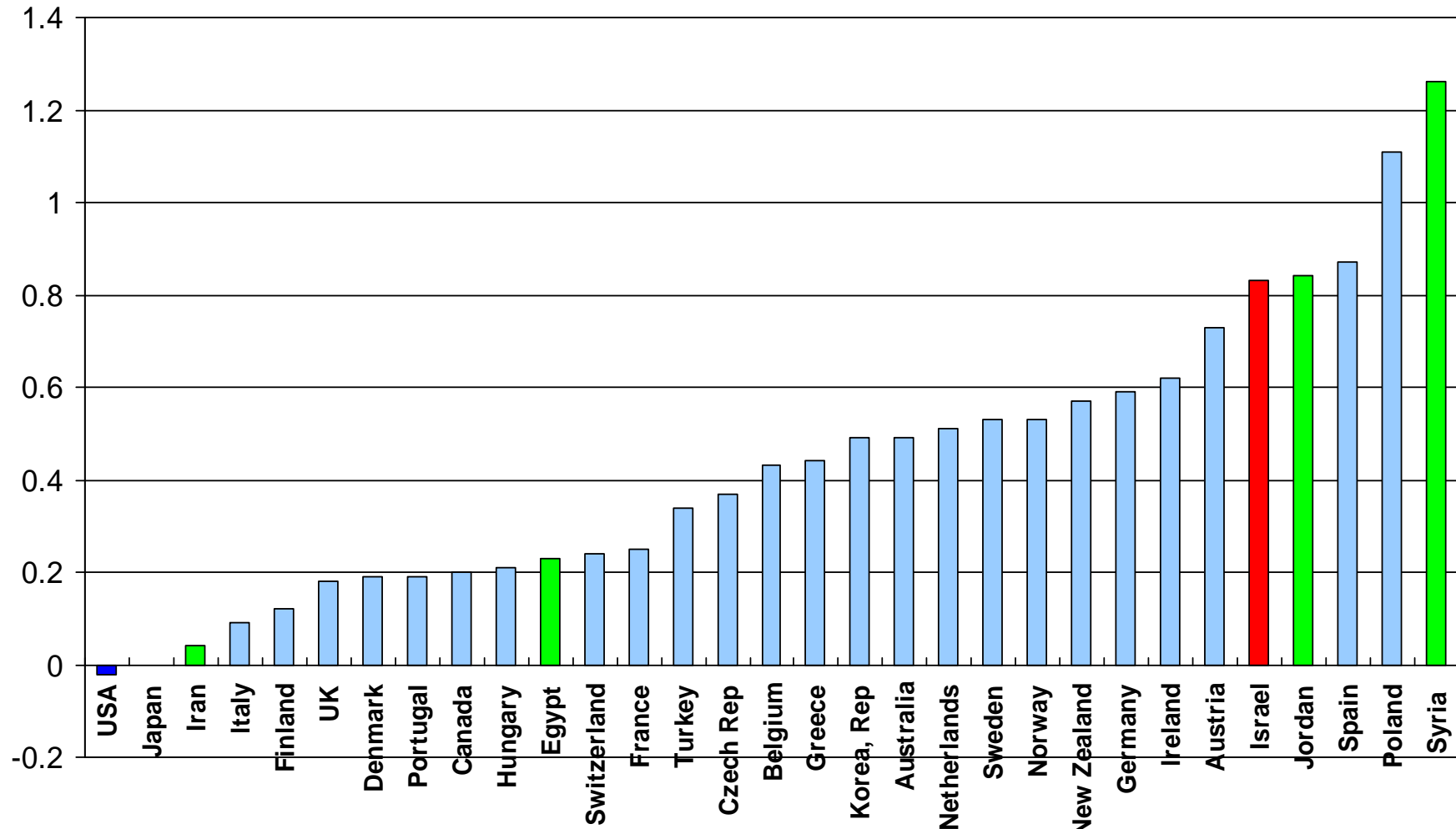
Israel and the Developed Countries



Development of the Social Dimension Israel and Regional Countries



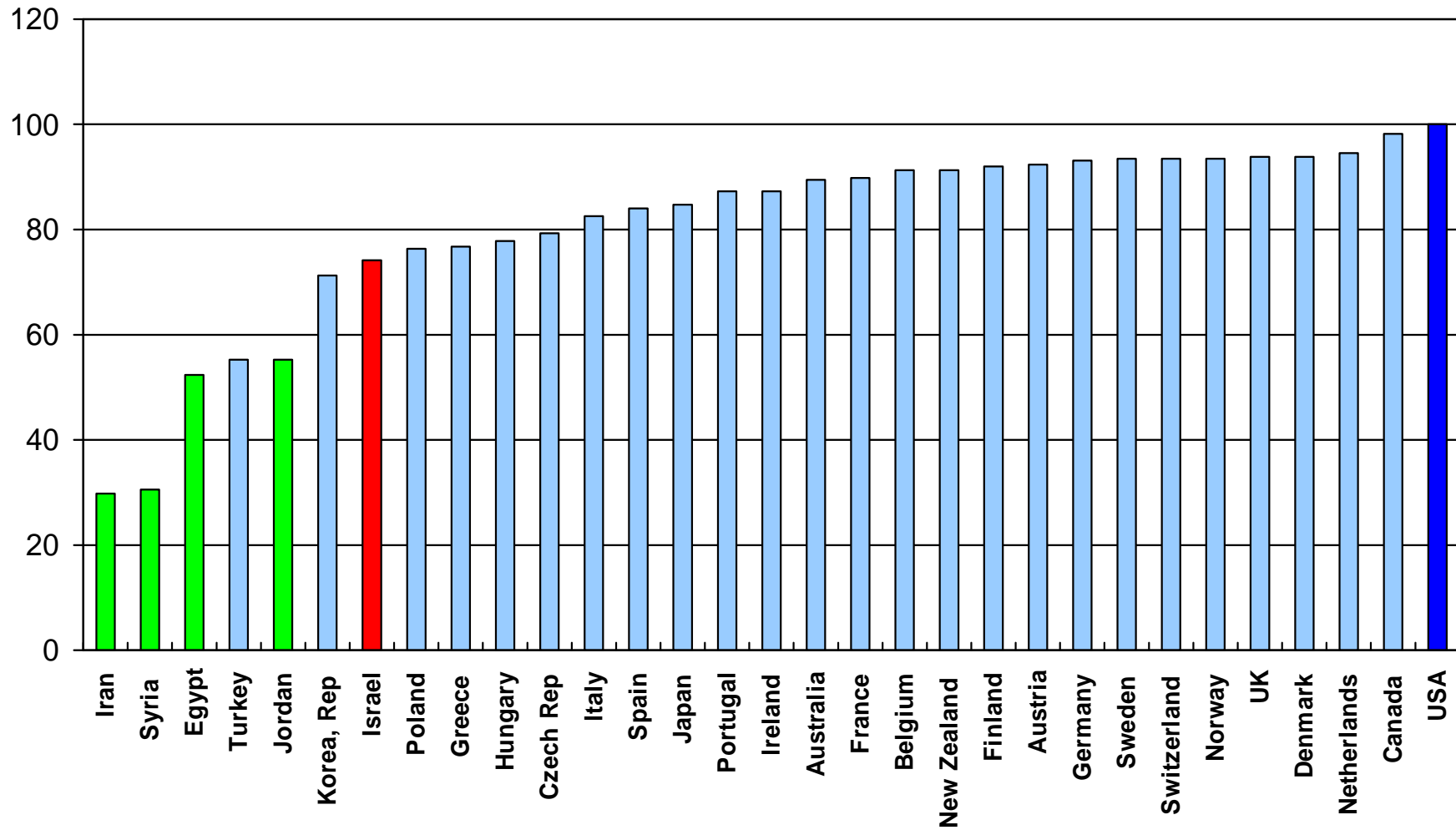
Social Change | 2004-2008



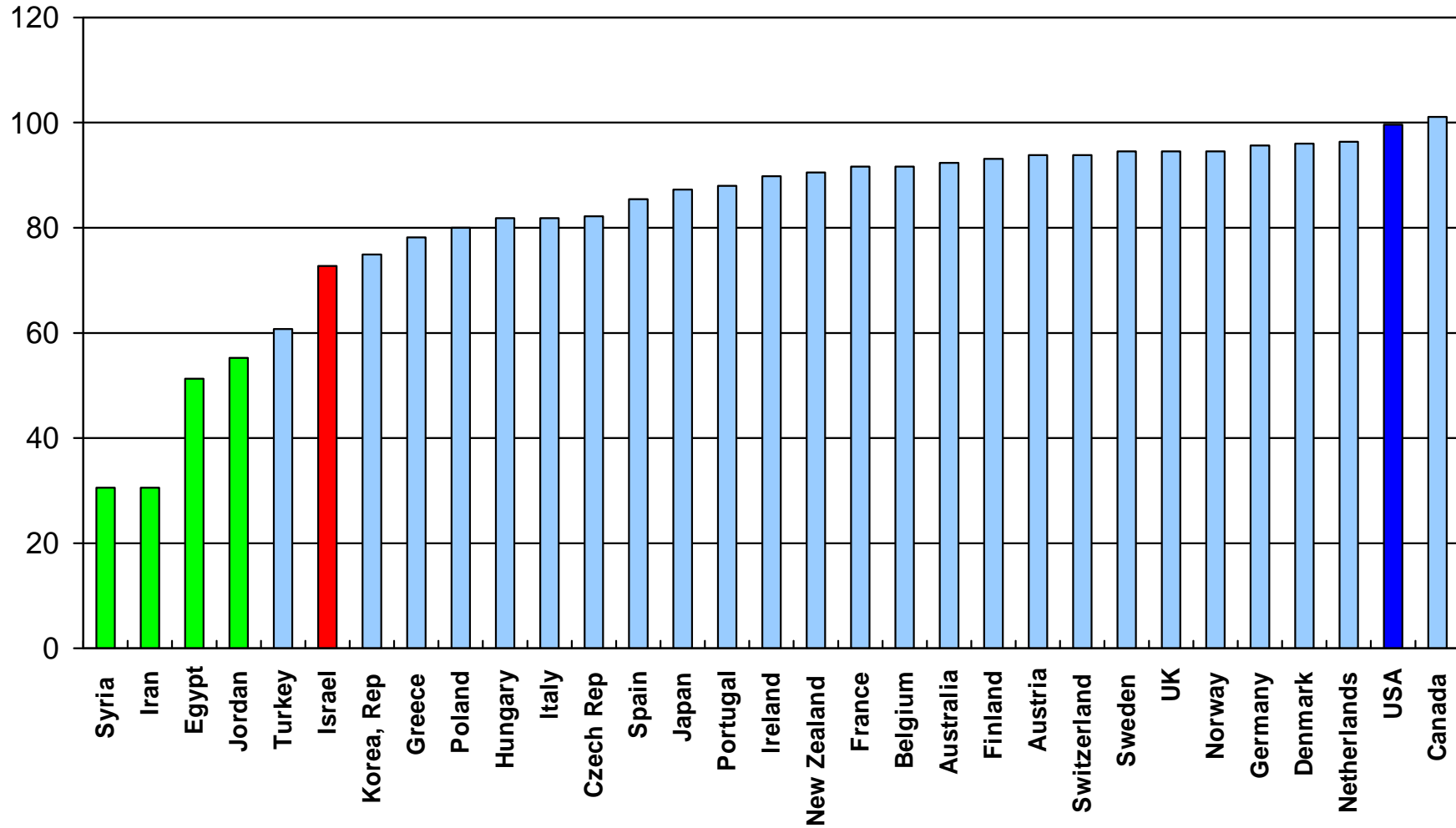
Social Index 2008

1	Denmark	106.2	17	New Zealand	97.8
2	Norway	104.9	18	Belgium	97.6
3	Sweden	104.7	19	Ireland	97.0
4	Canada	103.4	20	Spain	96.0
5	Finland	103.3	21	Poland	95.7
6	Netherlands	102.3	22	Israel	95.7
7	Switzerland	102.1	23	Portugal	95.2
8	Australia	101.8	24	Italy	94.8
9	Austria	101.6	25	Korea, Rep	93.8
10	France	100.5	26	Greece	93.4
11	USA	99.8	27	Turkey	85.2
12	Czech Rep	99.8	28	Jordan	79.8
13	Germany	99.7	29	Iran	75.7
14	Hungary	99.4	30	Egypt	75.1
15	UK	98.9	31	Syria	73.8
16	Japan	98.6			

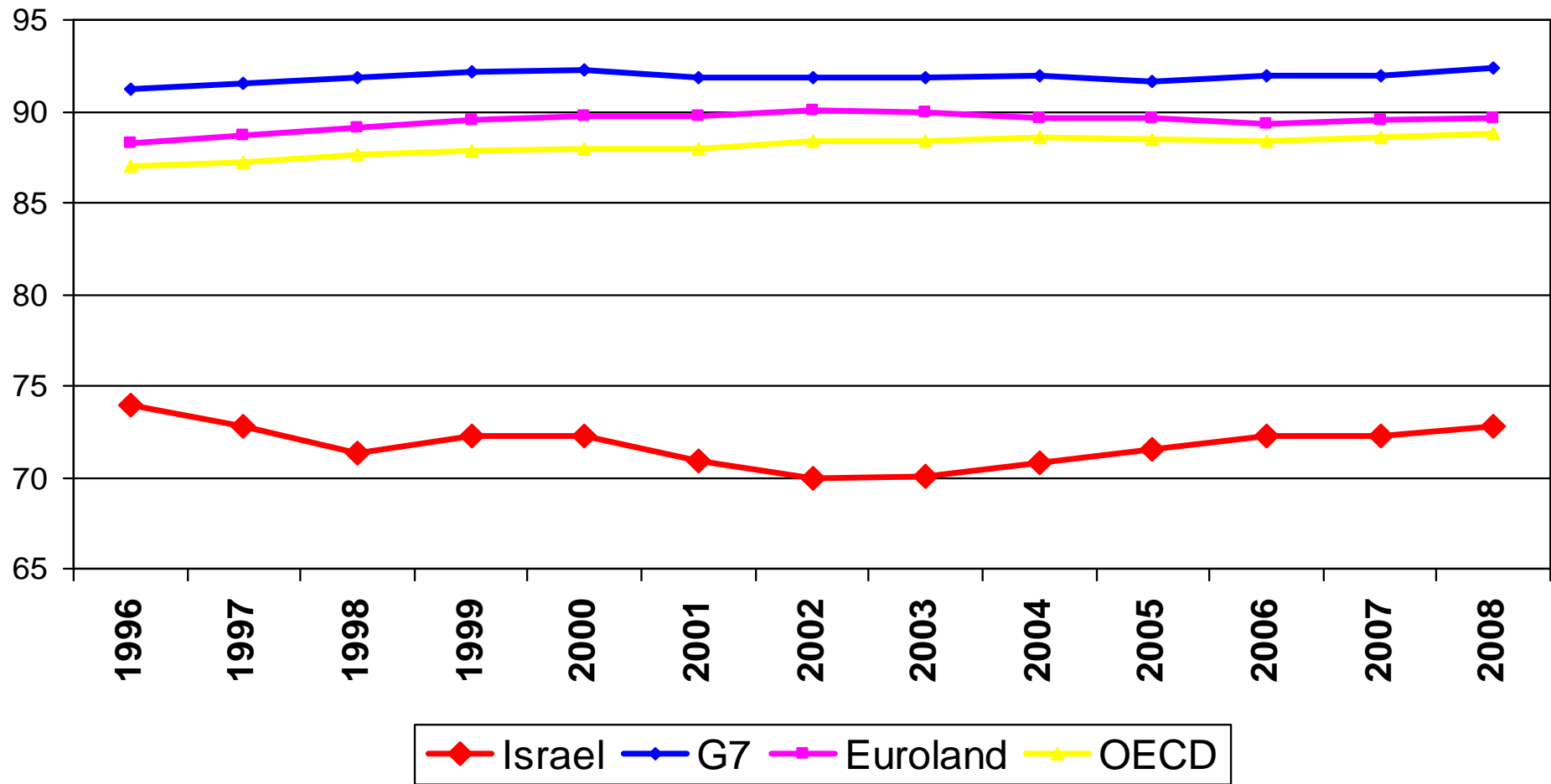
Governmental/ Political Base | 1996



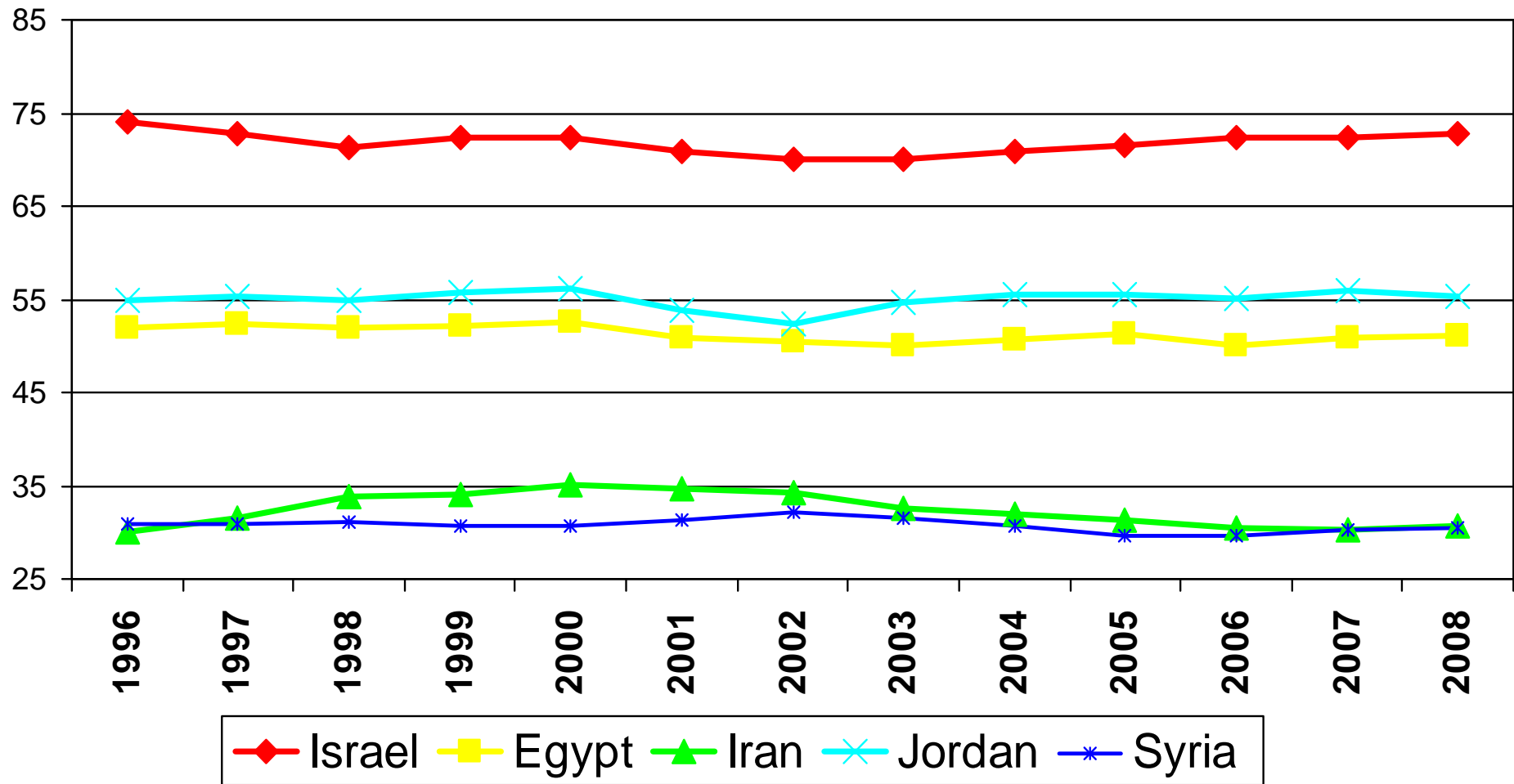
Governmental/ Political Base | 2008



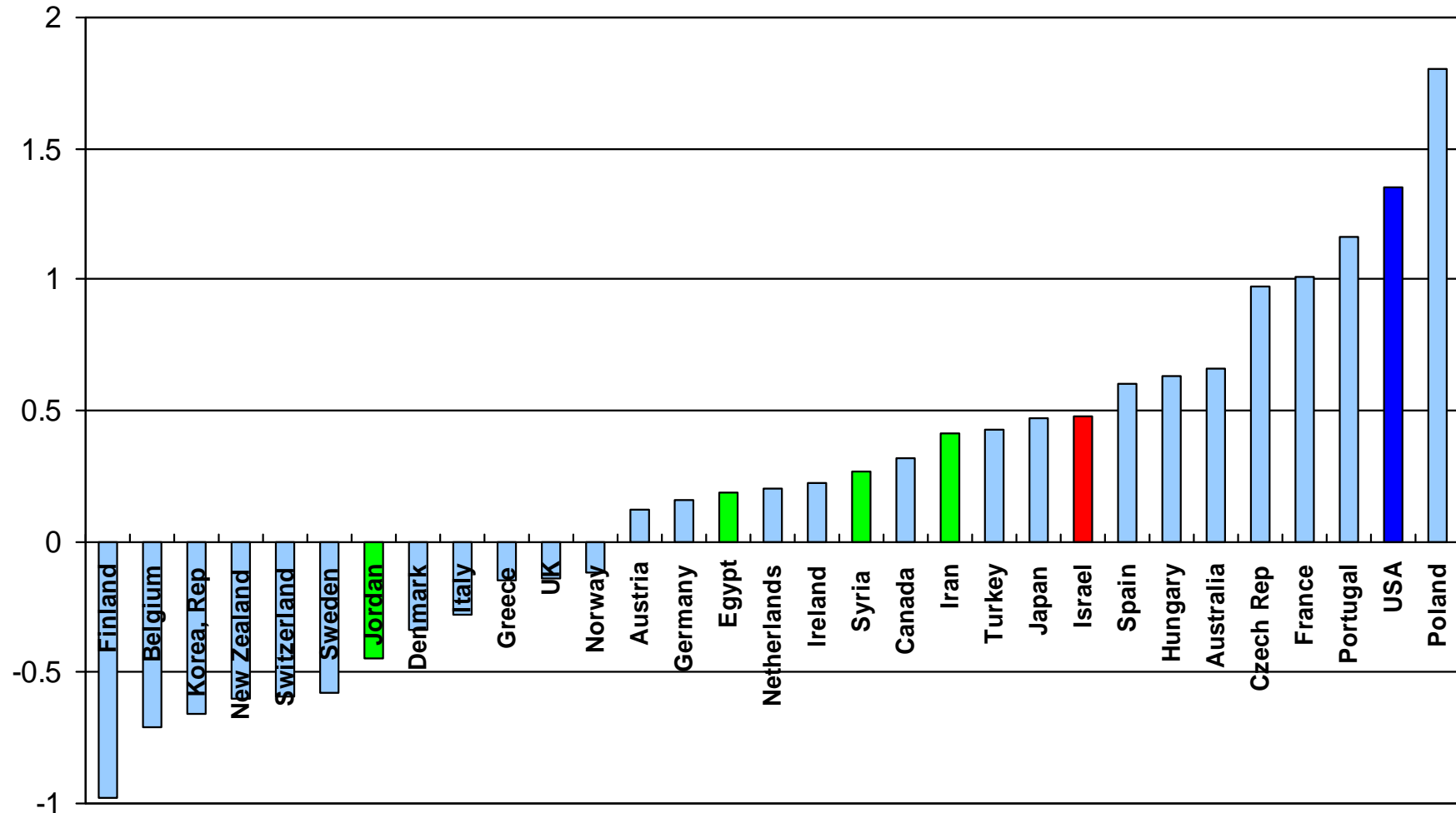
Development of the Governmental/ Political Dimension Israel and the Developed Countries



Development of the Governmental/ Political Dimension Israel and Regional Countries



Political Change | Marginal 2008



Governmental/ Political Index 2008

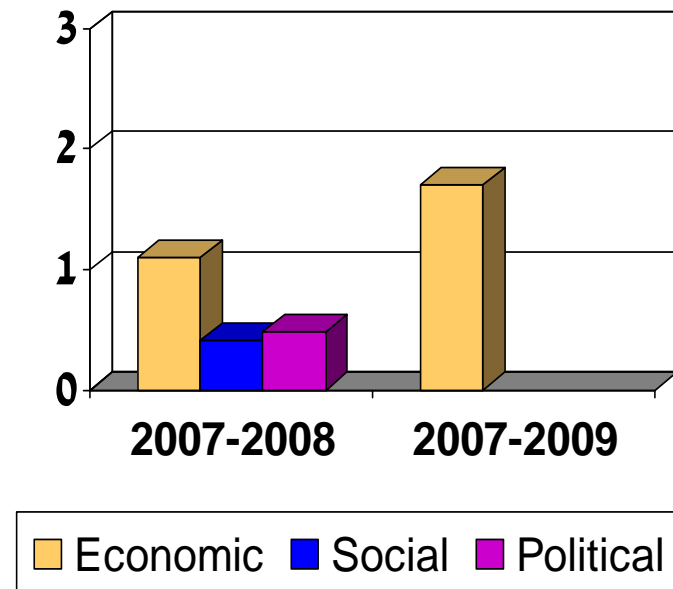
1	Canada	101.0	17	Portugal	88.1
2	USA	99.8	18	Japan	87.1
3	Netherlands	96.3	19	Spain	85.6
4	Denmark	96.0	20	Czech Rep	82.1
5	Germany	95.5	21	Italy	82.0
6	Norway	94.7	22	Hungary	81.7
7	UK	94.6	23	Poland	80.1
8	Sweden	94.4	24	Greece	78.2
9	Switzerland	93.8	25	Korea, Rep	74.9
10	Austria	93.7	26	Israel	72.8
11	Finland	93.0	27	Turkey	60.6
12	Australia	92.2	28	Jordan	55.4
13	Belgium	91.8	29	Egypt	51.2
14	France	91.7	30	Iran	30.7
15	New Zealand	90.7	31	Syria	30.5
16	Ireland	89.8			

Summary

Israel During the World Financial Crisis

- The Herzliya Indices provide a quantification of the relative positive development of the national security indices, in all the dimensions, during the world financial crisis.
- The rise of the Economic Dimension in 2008 and 2009, in the background of a general decline in the developed world, is due to a combination of a healthy period of growth, that preceded the world crisis, and appropriate macroeconomic policies implemented during the crisis. Israel succeeded in closing the gap with the developed countries.

The Herzliya Indices: Period of World Financial Crisis



Summary

Israel During the World Financial Crisis

- After a prolonged period of deterioration and stagnation in the Social Dimension of national security in 2008 we report a marginal improvement. This is due to a significant rise in the labor force participation of woman and men and in the decline in the rate of the chronic unemployed. In the most important components, the incidence of poverty and the income inequality, there was no improvement and Israel continues to lag behind the developed world.
- Also the Governmental/Political Dimension of national security shows a marginal improvement but the problem here is the low level of the index. This indicates that a major reform is needed to pull Israel out of its position in the lower part of the distribution. In this dimension Israel is only higher than the countries in the region including Turkey and lower than all other countries.

**The Herzliya Indices:
Period of World
Financial Crisis**

