

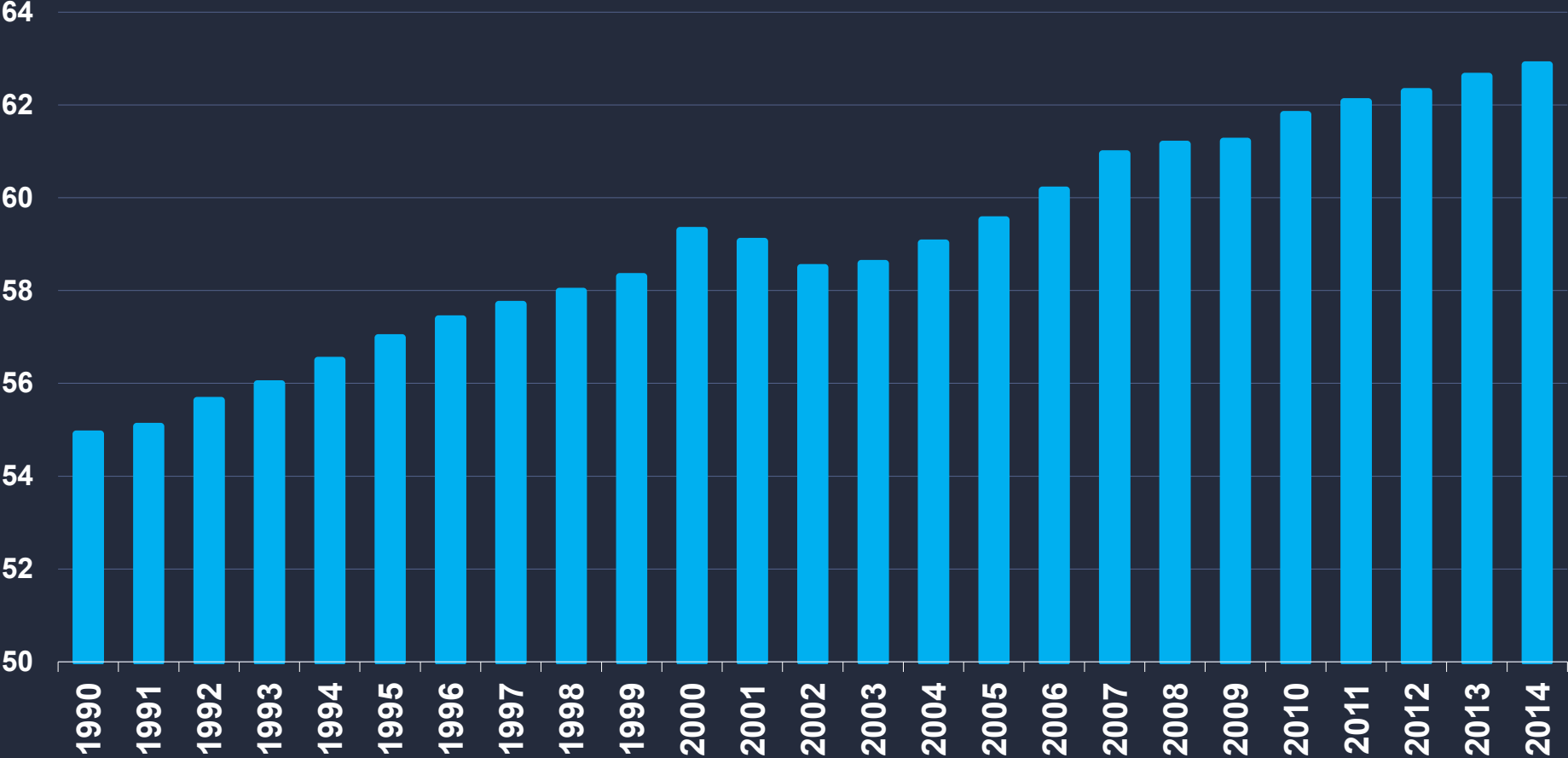
The Herzliya Indices

**National Security Balance
The Civilian Quantitative Dimension**

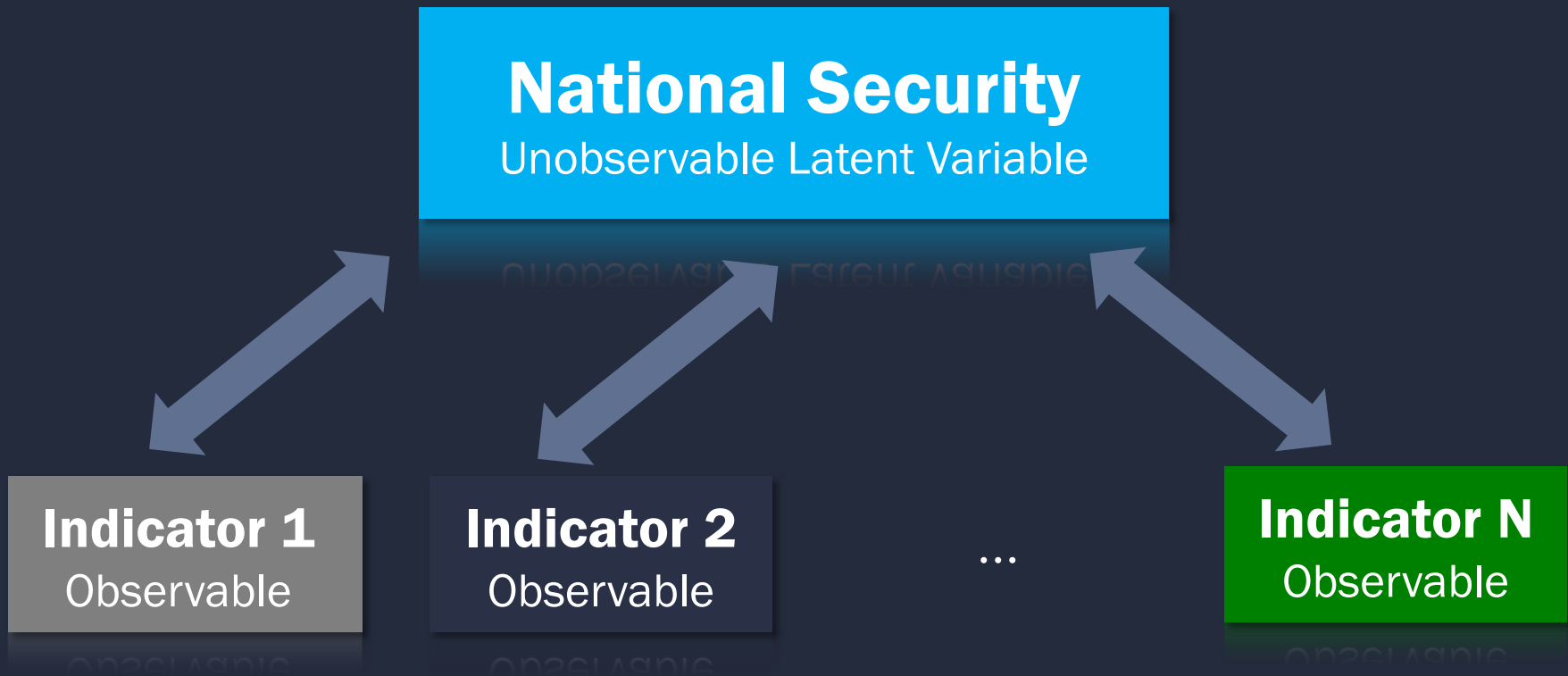
Herzliya Conference 2015

Prof. Rafi Melnick, IDC Herzliya

Development of the Economic Dimension in Israel 1990-2014



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. General Government Gross Financial Liabilities (half weight 11%)
5. R&D Investment - Percent of GDP (11%)
6. Current Account Balance (11%)
7. Inflation (11%)
8. Long Term interest rate (5%)
9. Fiscal Deficit (5%)

The Model

- Construction of a panel data set of 27 countries
- The model includes:
 - Israel
 - 26 OECD countries
- Data ranges from 1990 through 2013

Economic Data Resources

Primary Sources

- OECD Statistics
- OECD Economic Outlook
- Israel's National Insurance institute - Research and Planning Administration
- Israel's Central Bureau of Statistics

Secondary Sources

- IFS – International Financial Statistics (IMF)
- IMF – World Economic Outlook
- Bank of Israel and various central banks
- Other sources

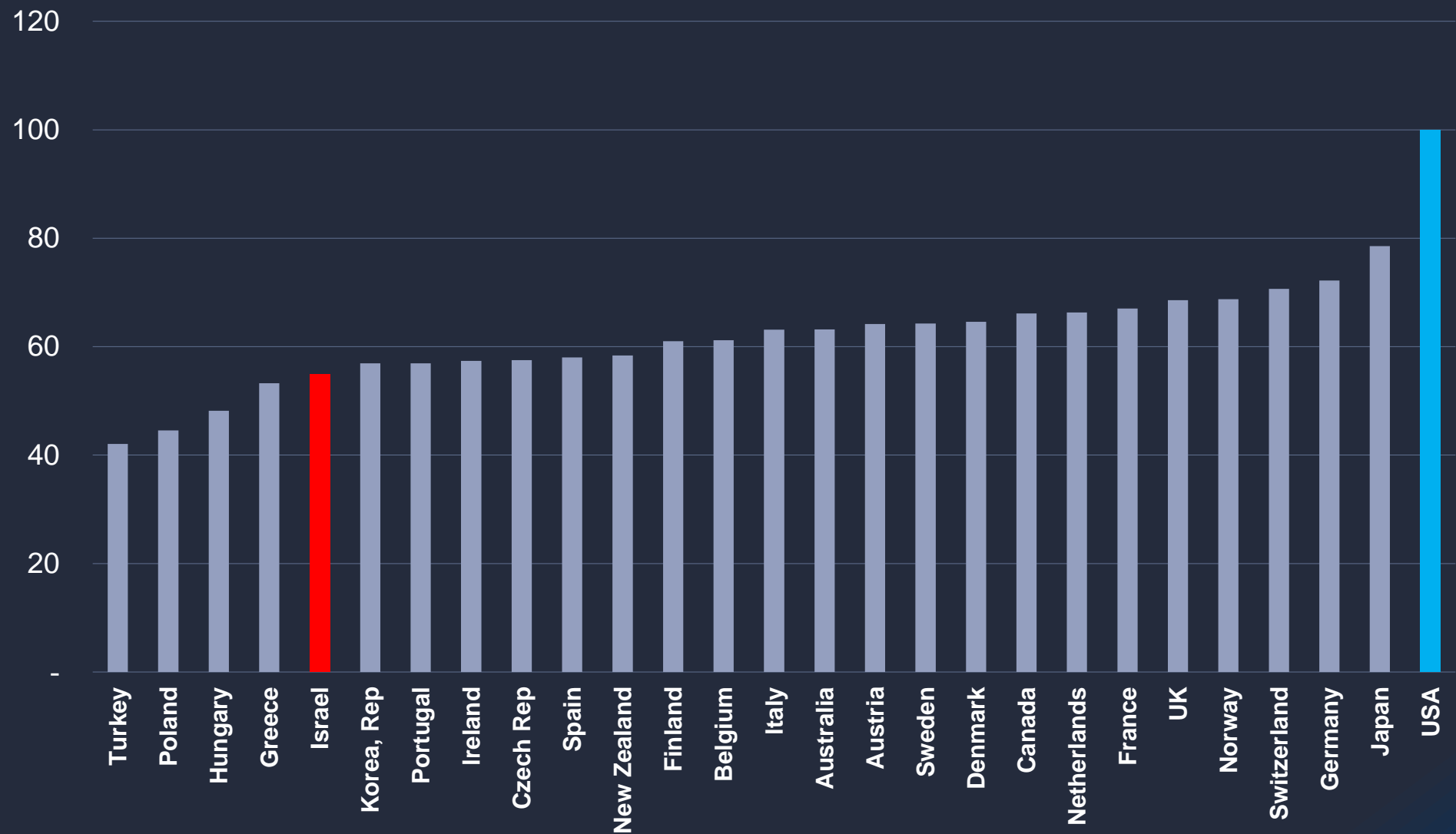
Methodology

- * A preliminary base is calibrated.
- * 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

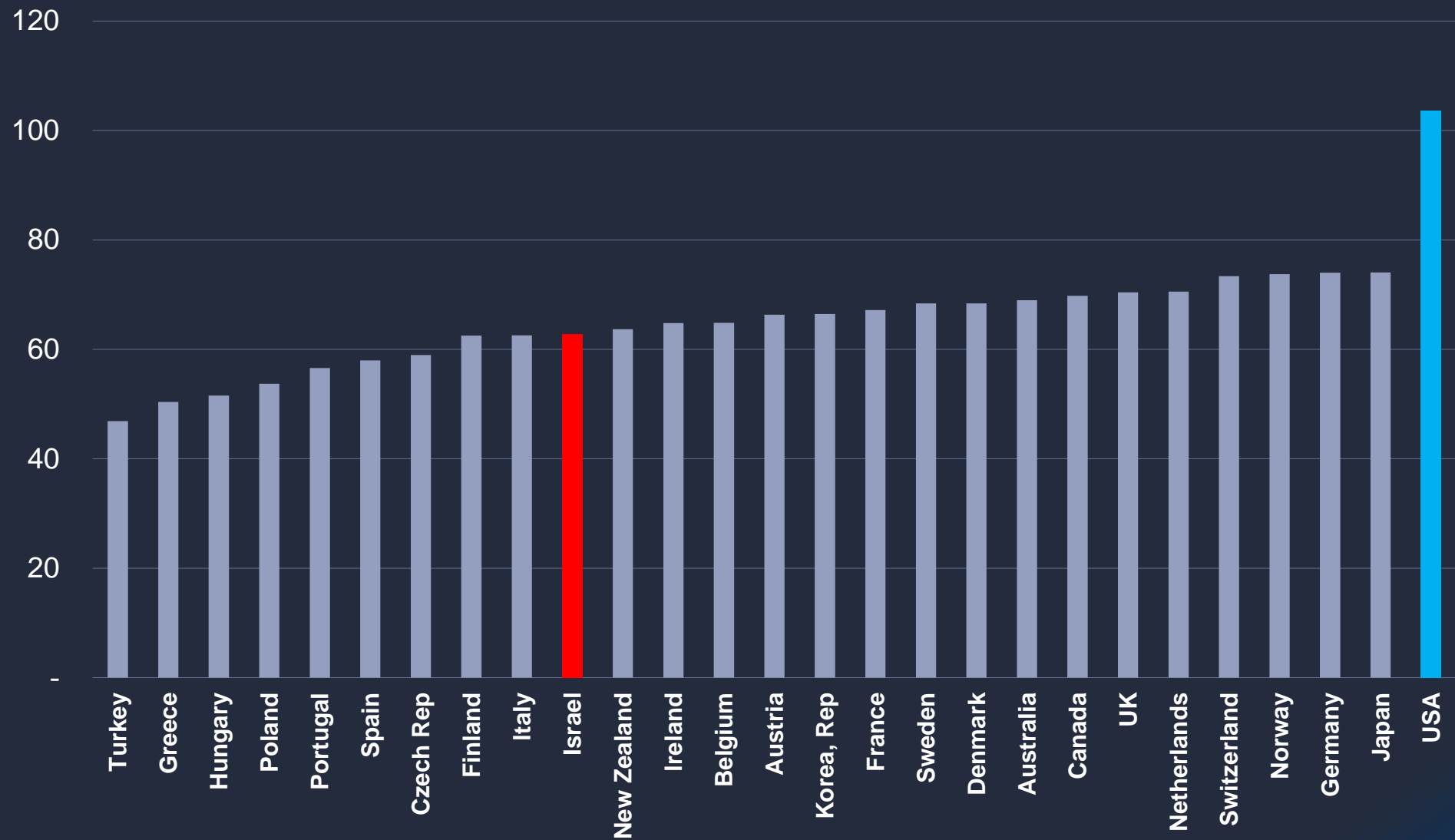
The Herzliya Indices

2015 RESULTS

Economic Base - 1990

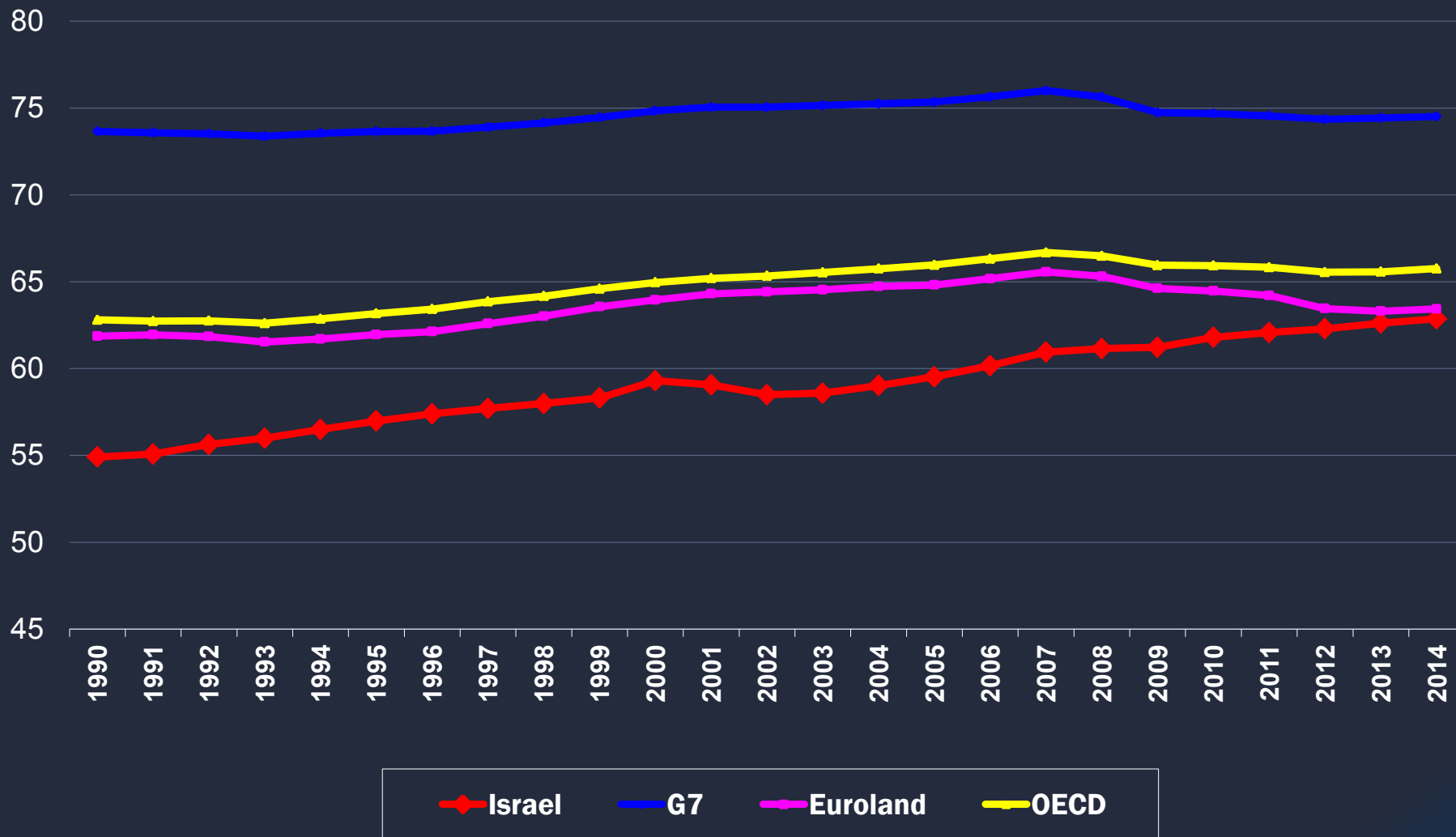


Economic Base - 2014



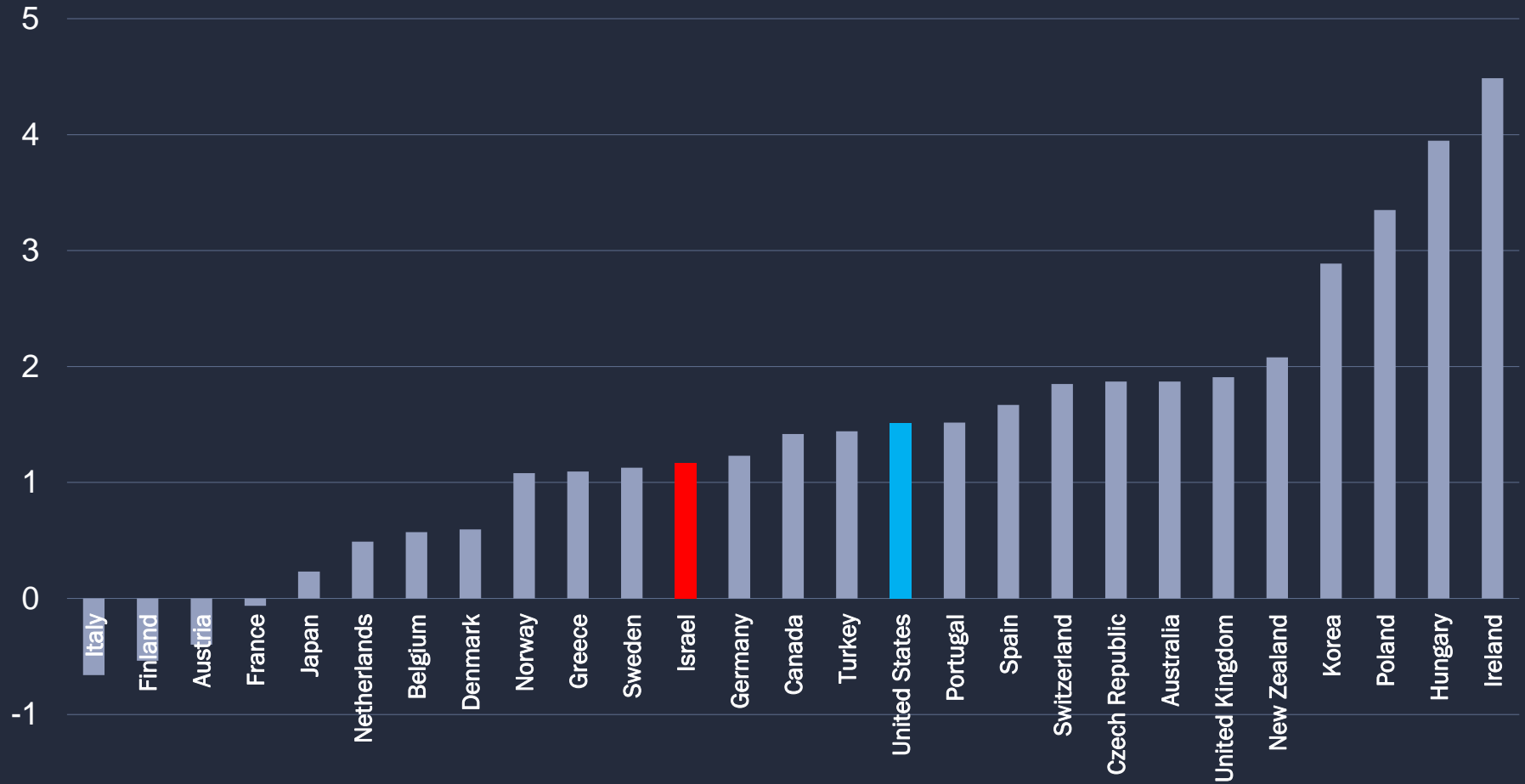
Development of the Economic Dimension

Israel and the Developed Countries



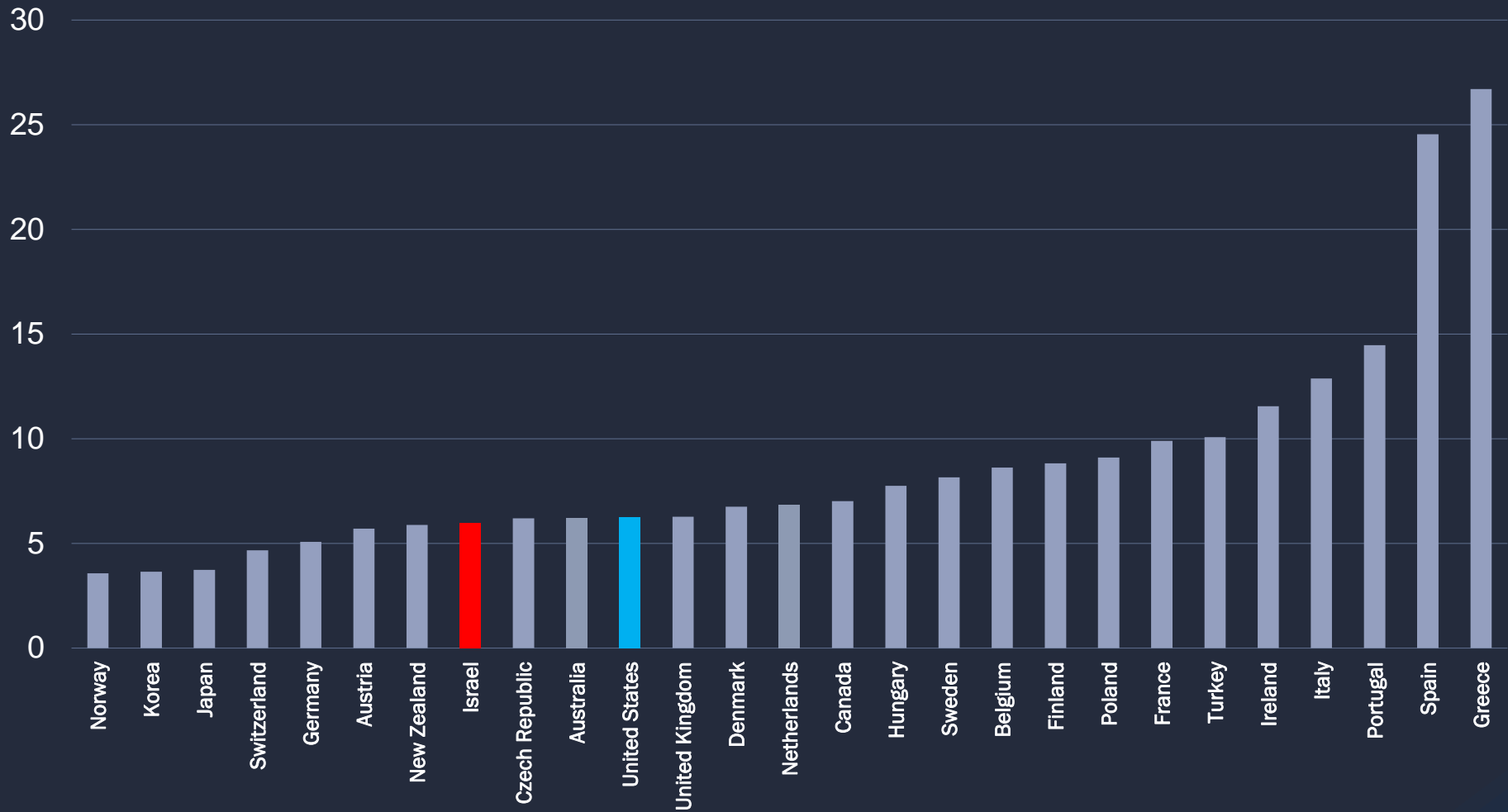
Per Capita GDP Growth - 2014

(percent)



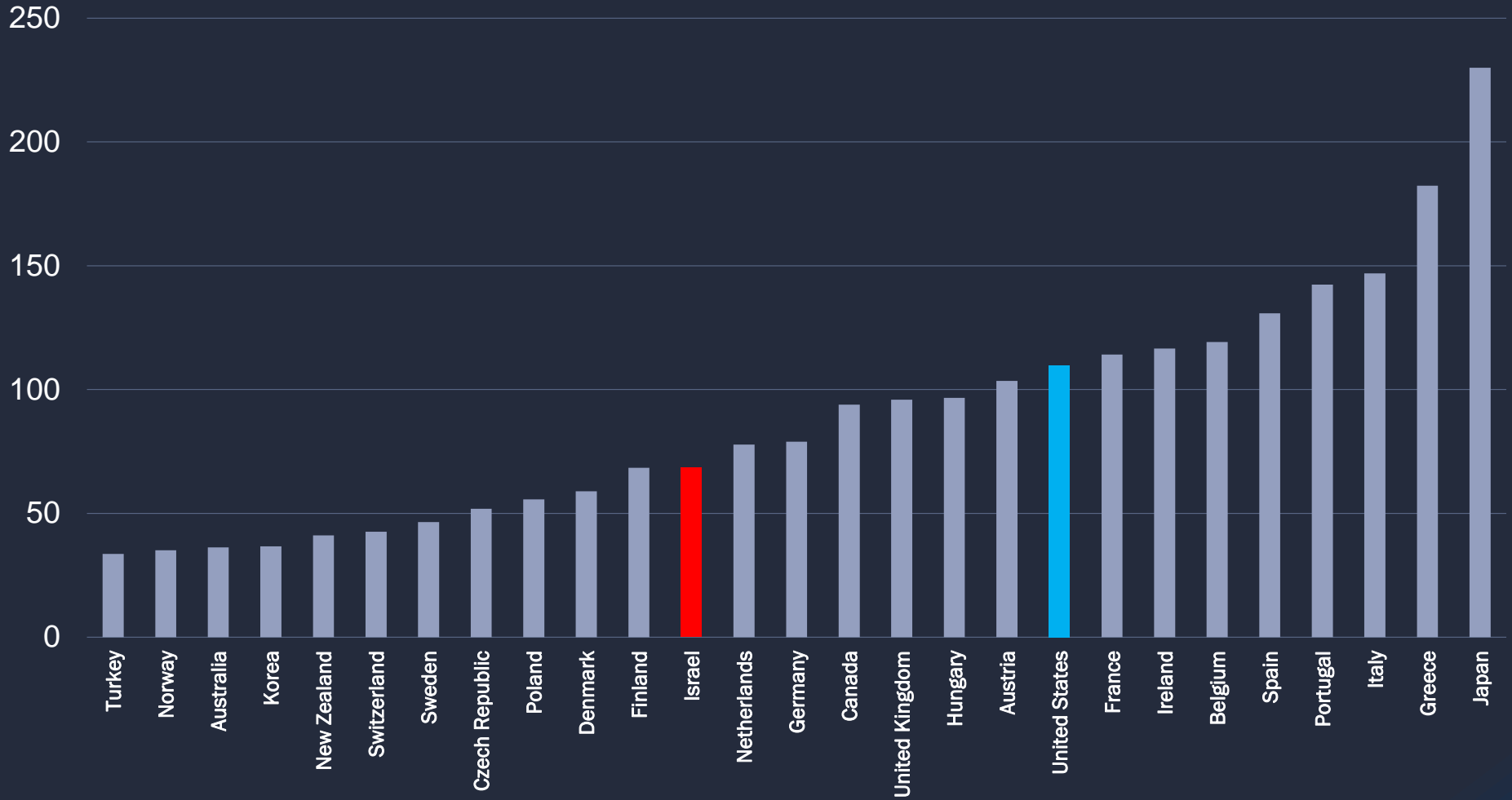
Unemployment Rate - 2014

(percent)



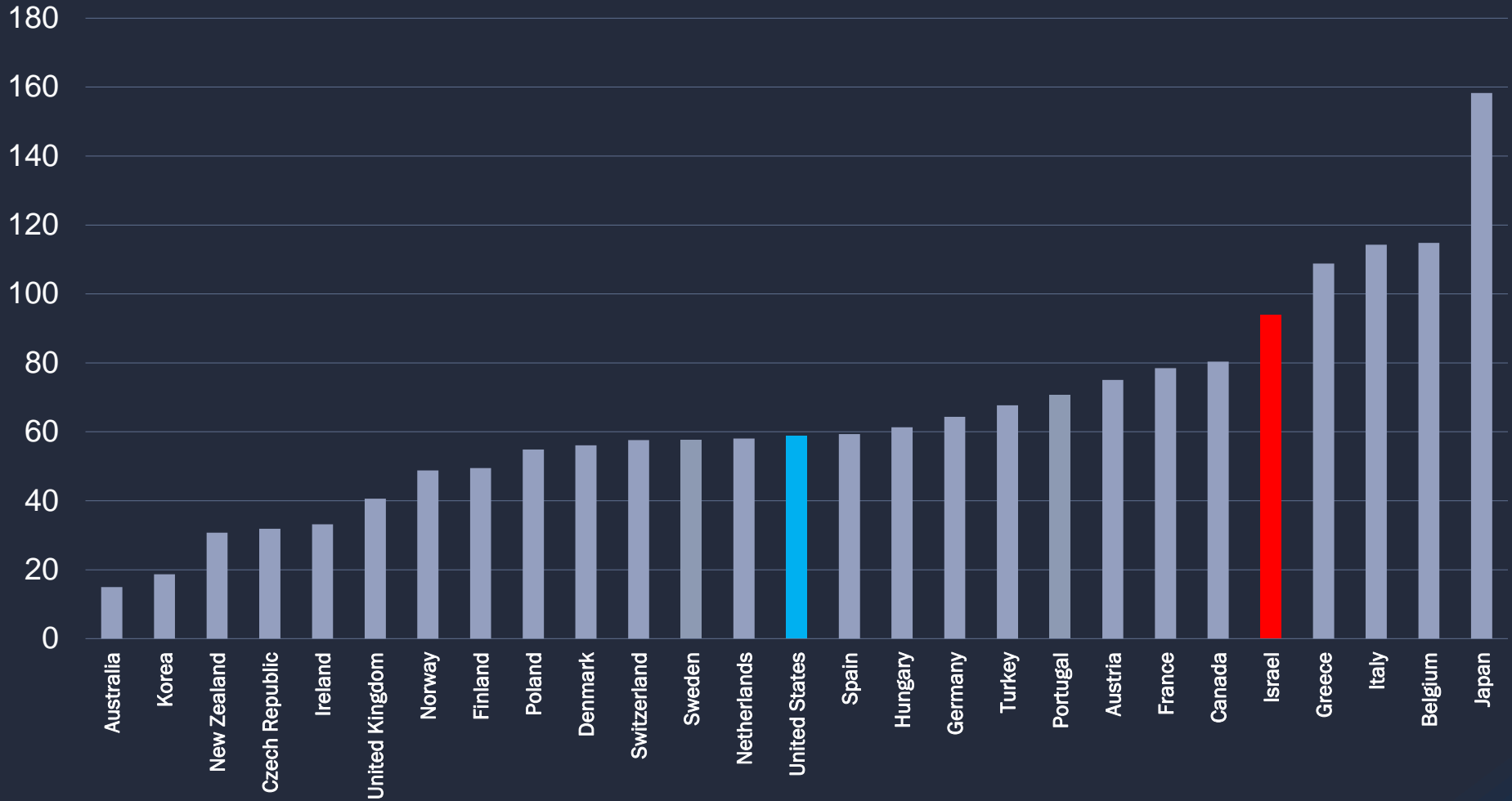
General Government Liabilities - 2014

(percent of GDP)



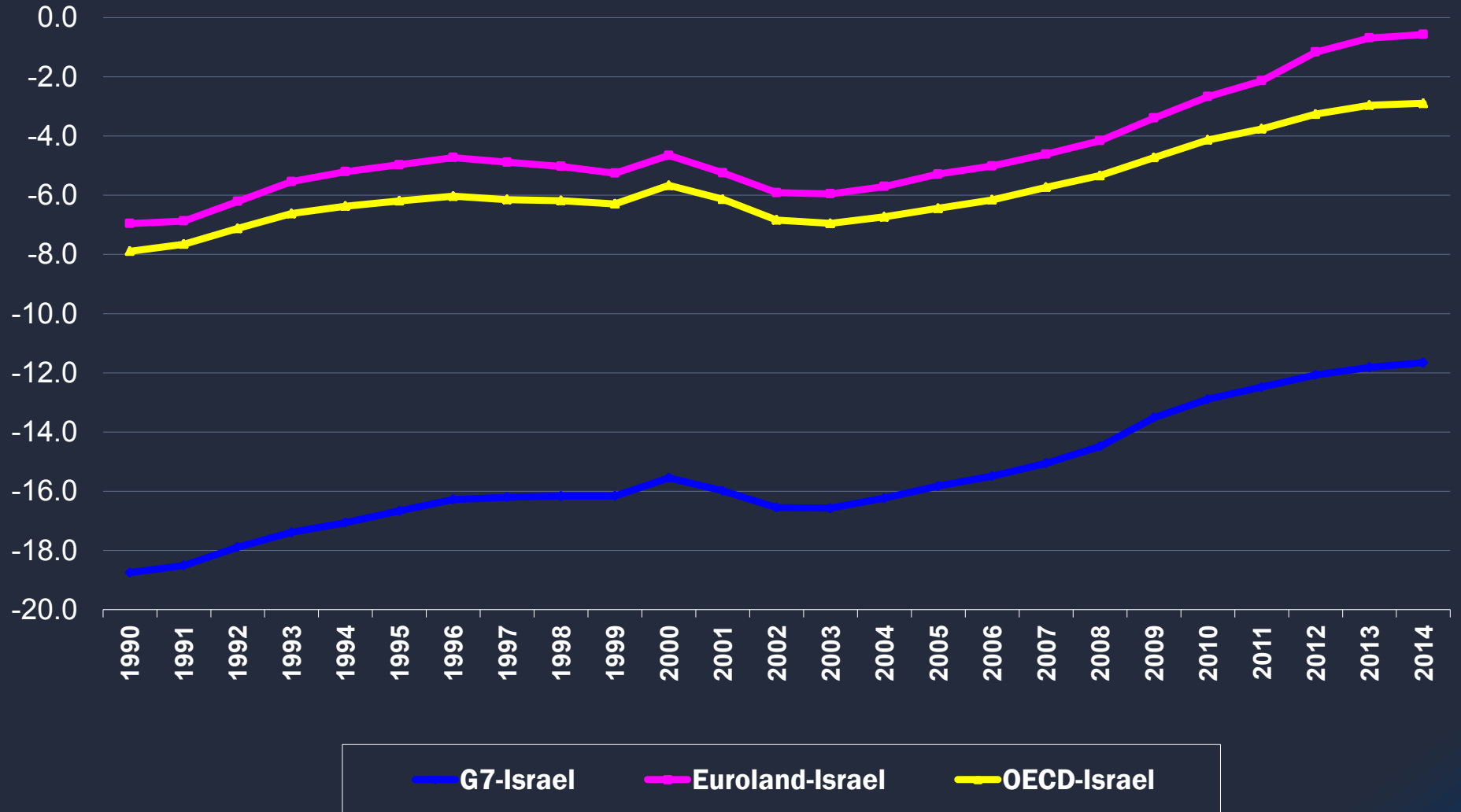
General Government Liabilities - 2003

(percent of GDP)



Economic Dimension Gap

Israel and the Developed Countries



Economic Index 2014

1	USA	103.59	17	New Zealand	63.66
2	Japan	74.06	18	Israel	62.86
3	Germany	74.01	19	Italy	62.57
4	Norway	73.72	20	Finland	62.49
5	Switzerland	73.36	21	Czech Rep	58.96
6	Netherlands	70.56	22	Spain	57.98
7	UK	70.41	23	Portugal	56.58
8	Canada	69.80	24	Poland	53.70
9	Australia	68.98	25	Hungary	51.54
10	Denmark	68.40	26	Greece	50.40
11	Sweden	68.37	27	Turkey	46.89
12	France	67.17			
13	Korea, Rep	66.45			
14	Austria	66.33			
15	Belgium	64.83			
16	Ireland	64.79			

The Herzliya Composite Economic Social Index

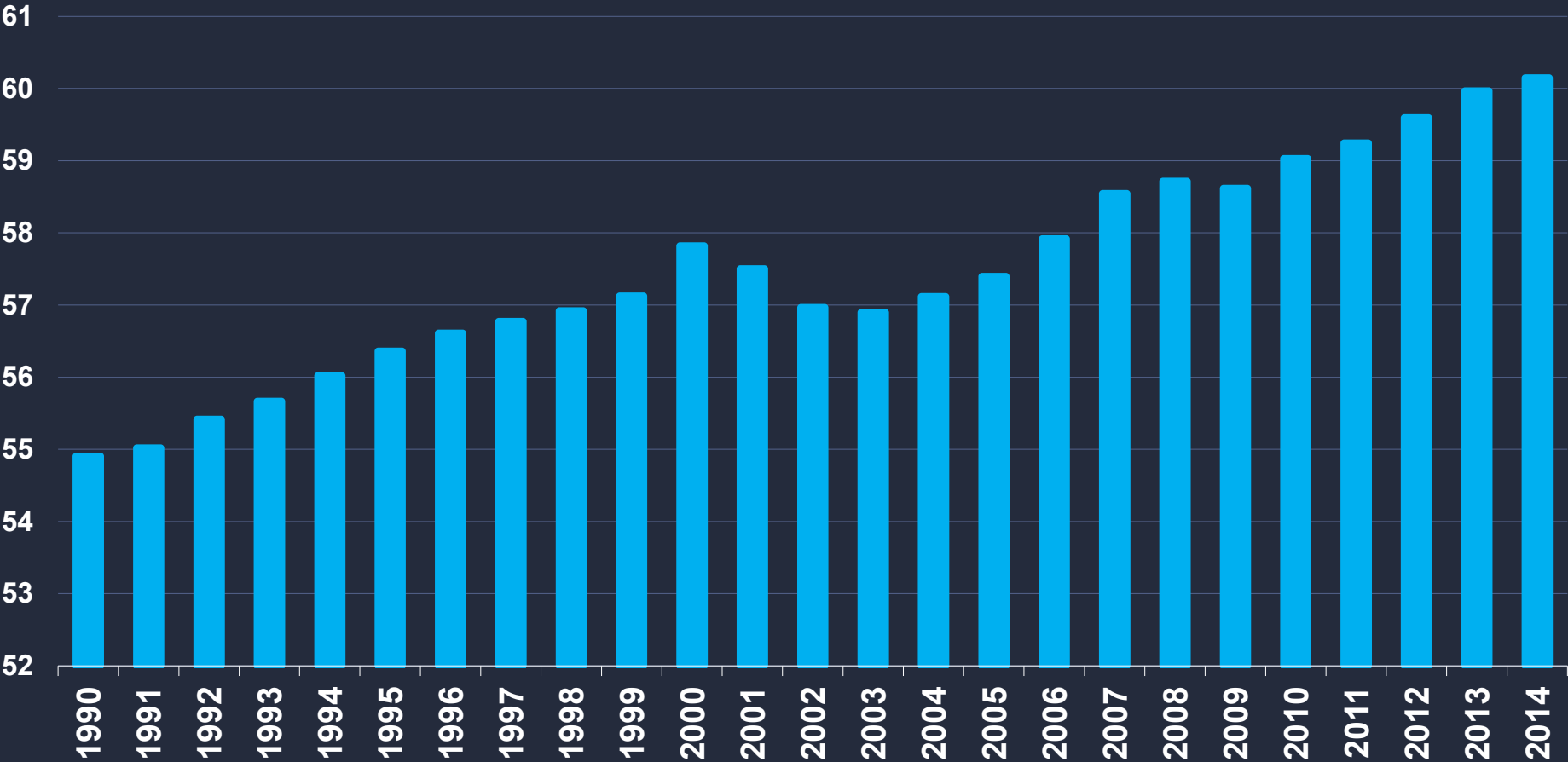
Components of the Economic-Social Indicator

(Relative Weight in Parenthesis, Social indicators in yellow)

1. GDP Per Capita, PPP (11%)
2. GDP, PPP (10%)
3. Unemployment (10%)
4. Poverty Incidence (10%)
5. Inequality Gini (8%)
6. General Government Gross Financial Liabilities (8%)
7. R&D Investment - % of GDP (8%)
8. Current Account Balance (8%)
9. Long Term Unemployment (7%)
10. Employment Rate (7%)
11. Inflation (7%)
12. Long Term Interest Rate (3%)
13. Fiscal Deficit (3%)

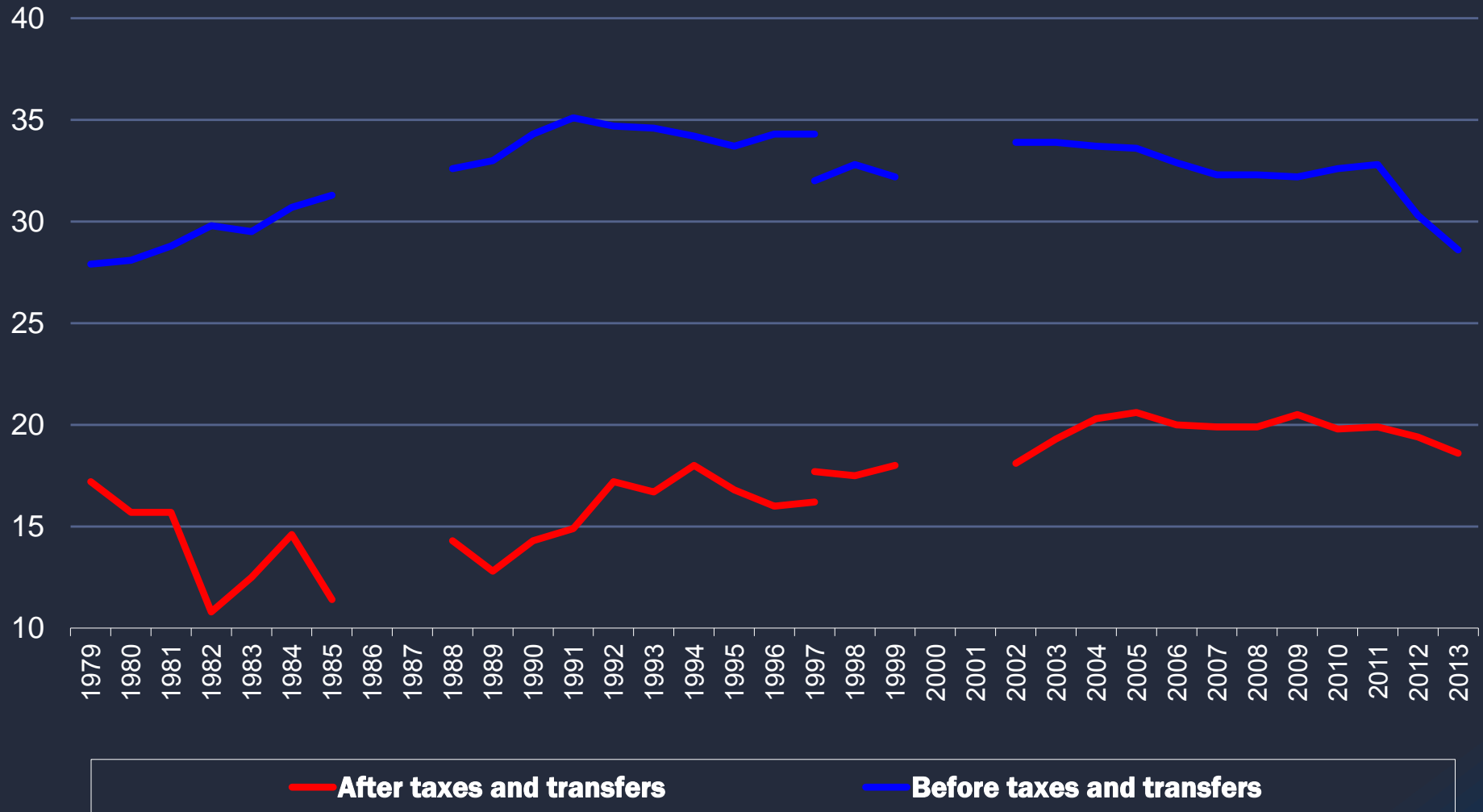
Development of the Economic and Social Dimension in Israel

1990 - 2014



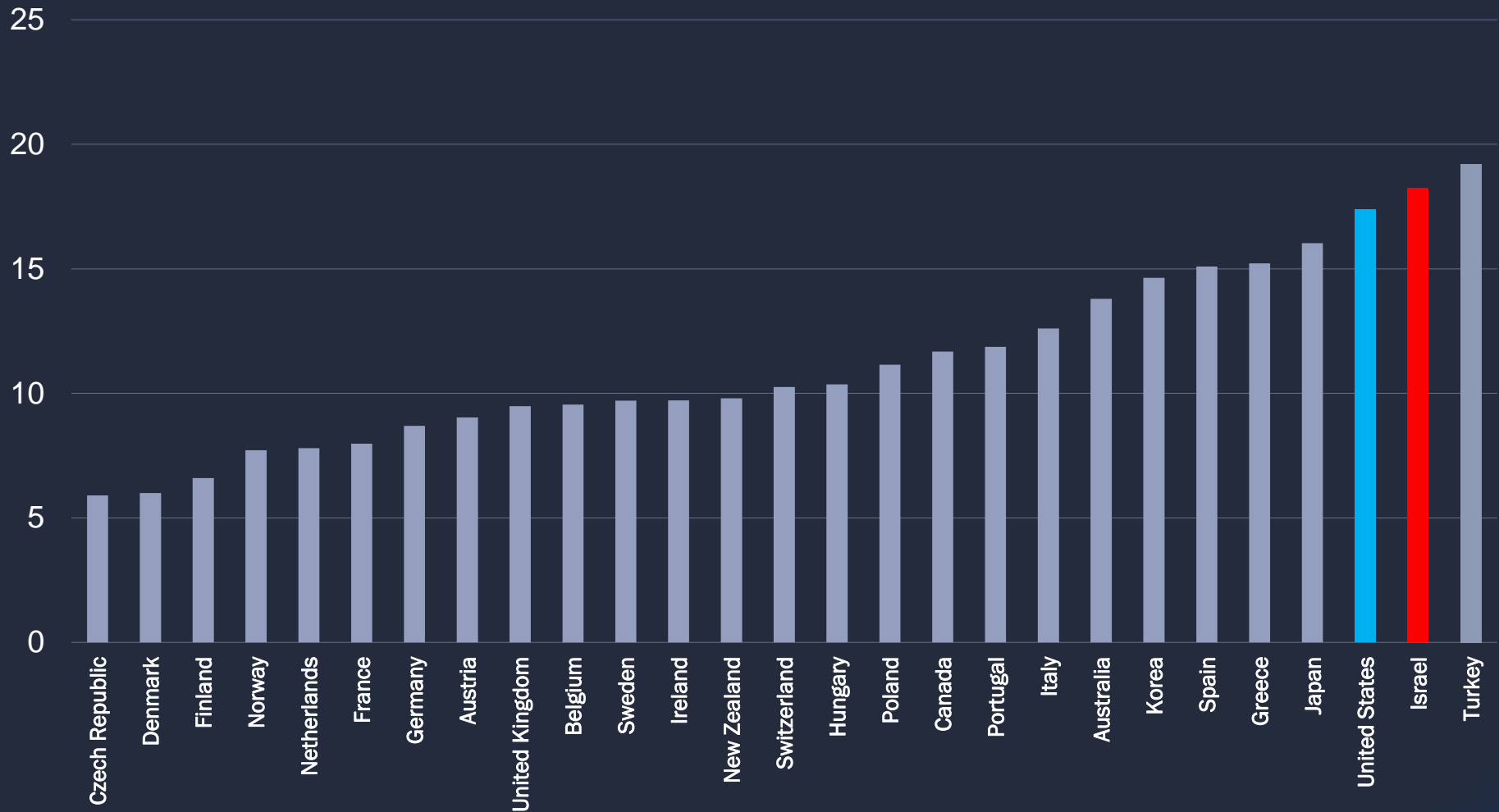
Poverty Incidence in Israel 1979 - 2013

(Families, percent)



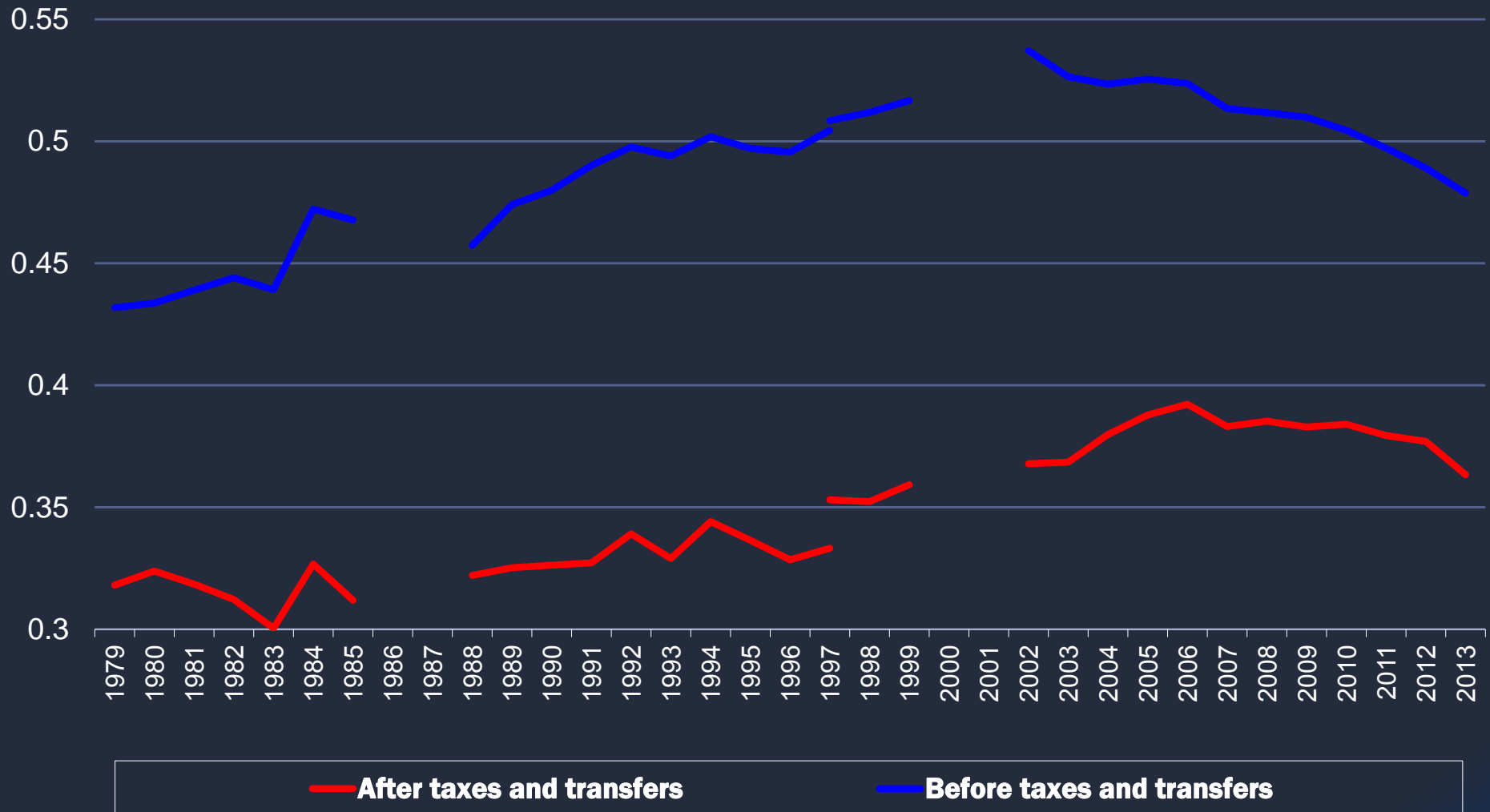
Poverty Incidence

(Families, the latest available data point, percent)



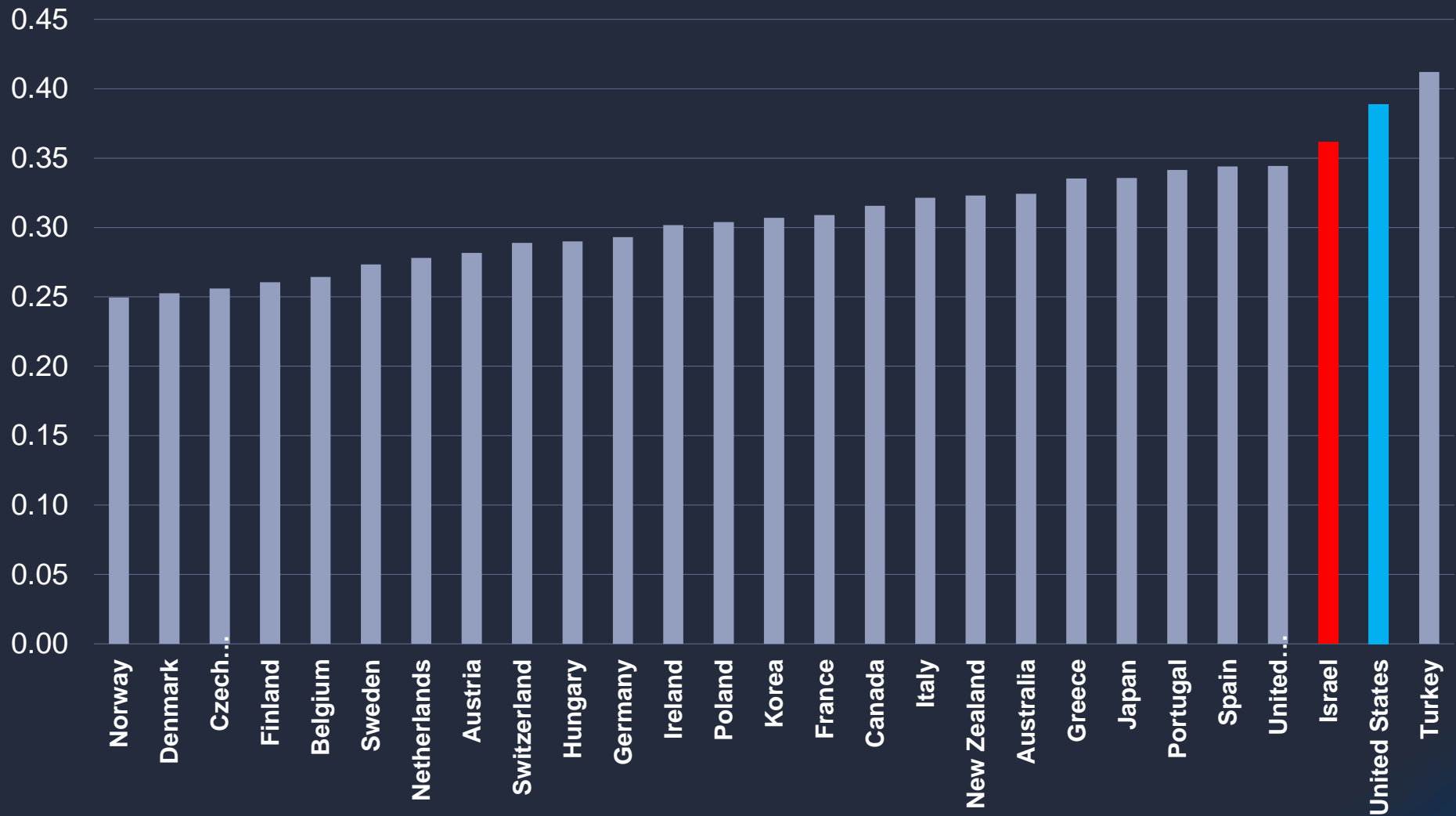
Inequality in Israel 1979-2013

(Families, Gini Coefficient)



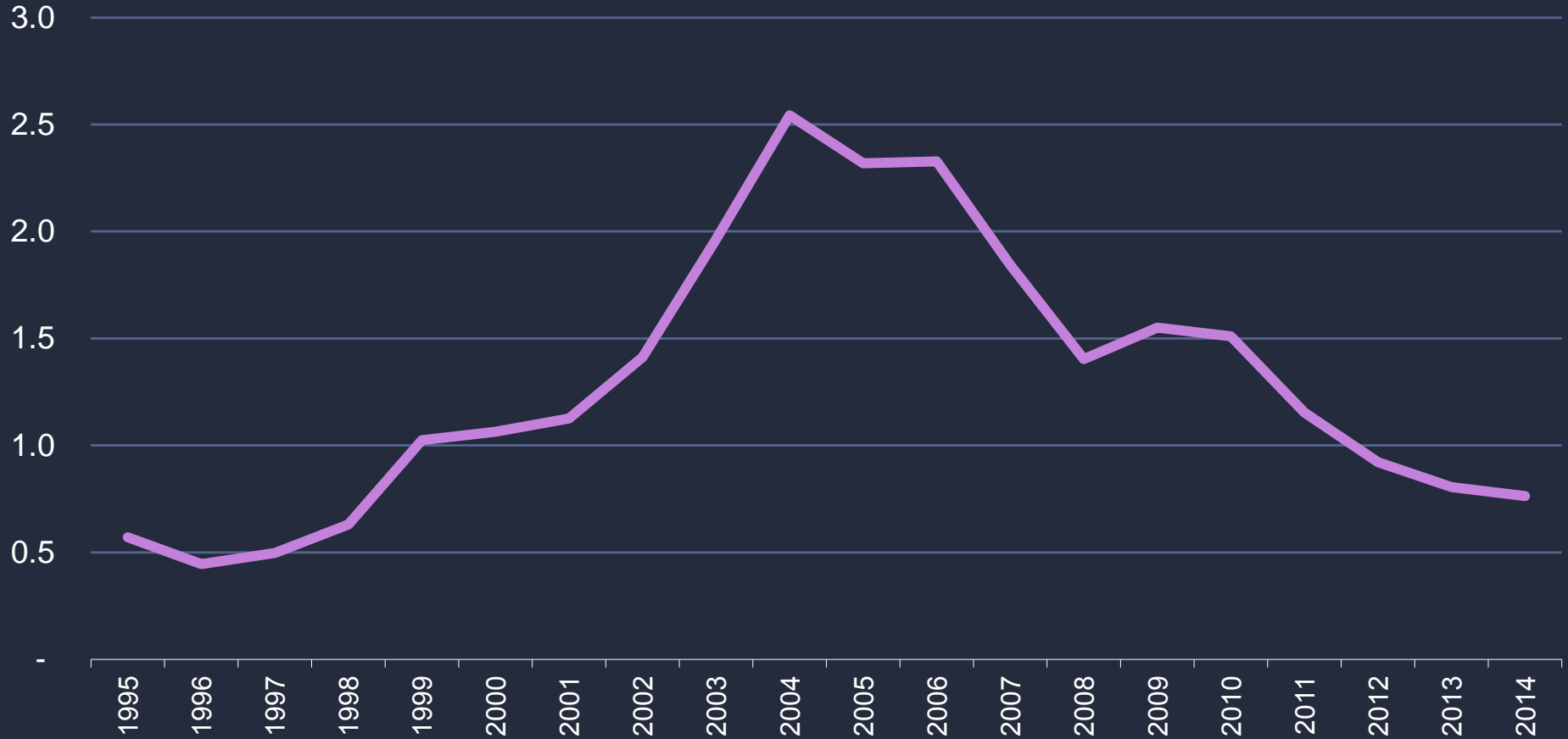
Inequality

(Families, the latest available data point, Gini coefficient)



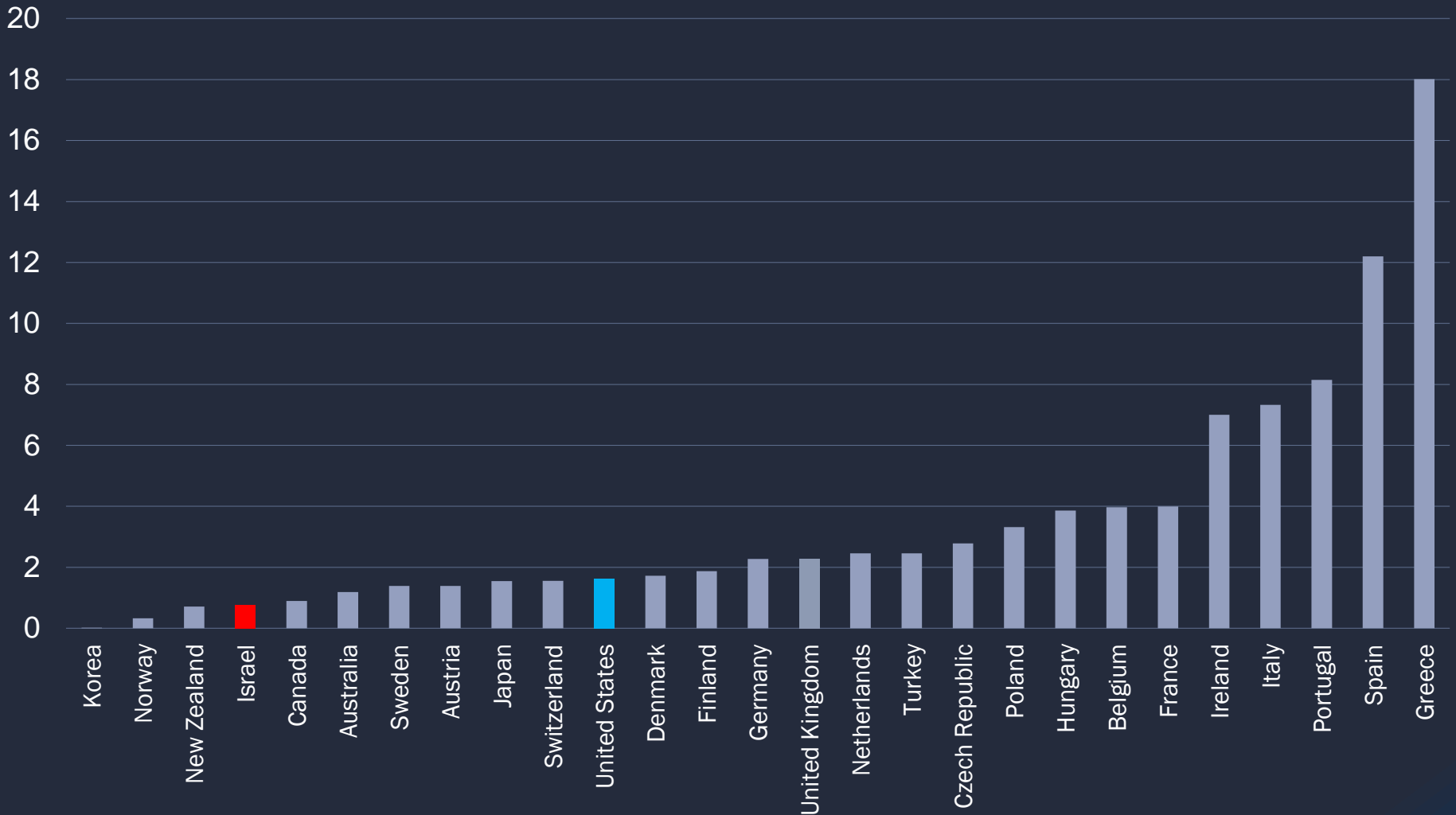
Long Term Unemployment in Israel 1995-2013

(percent)



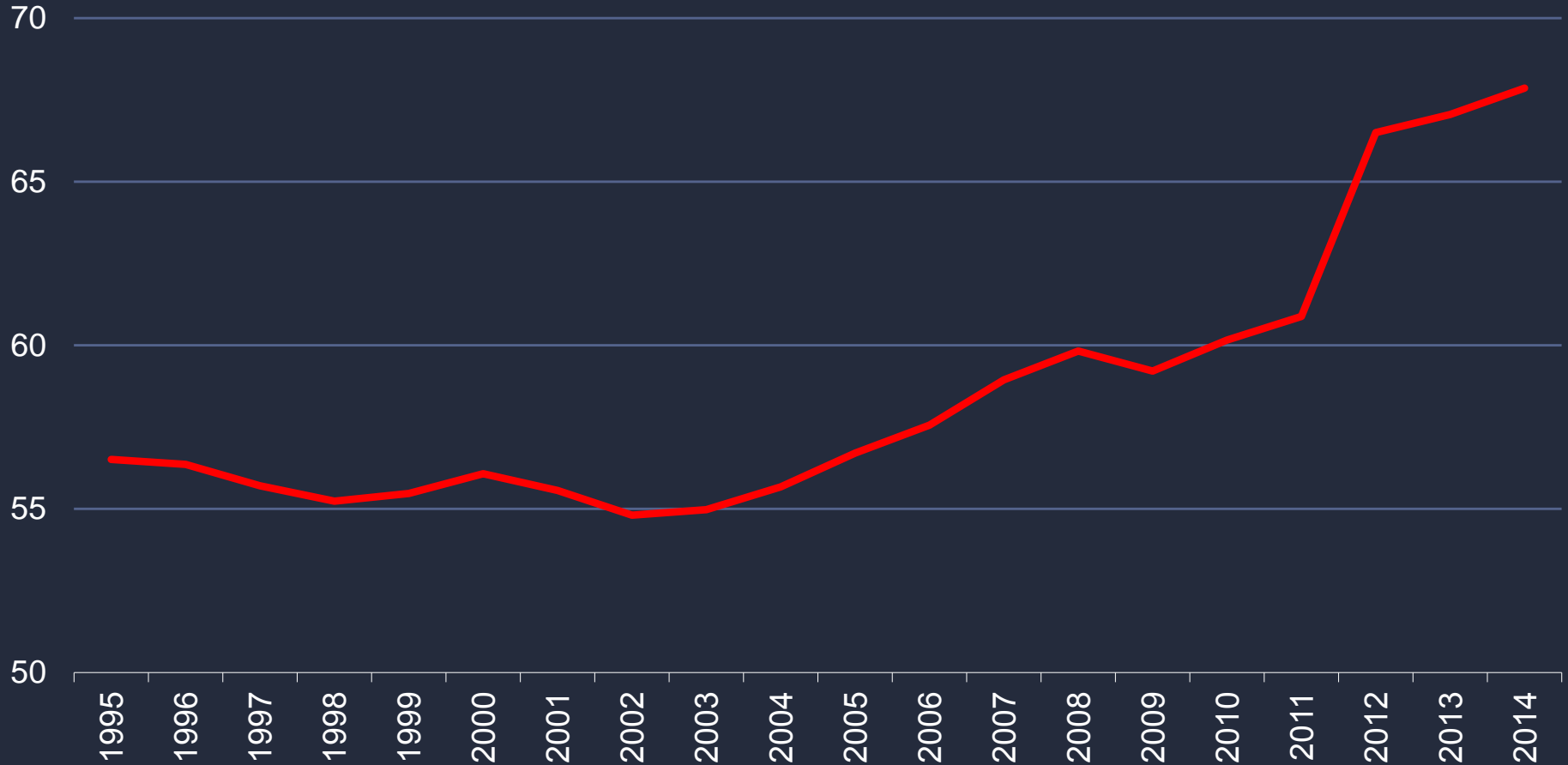
Long Term Unemployment

(Families, the latest available data point, percent)



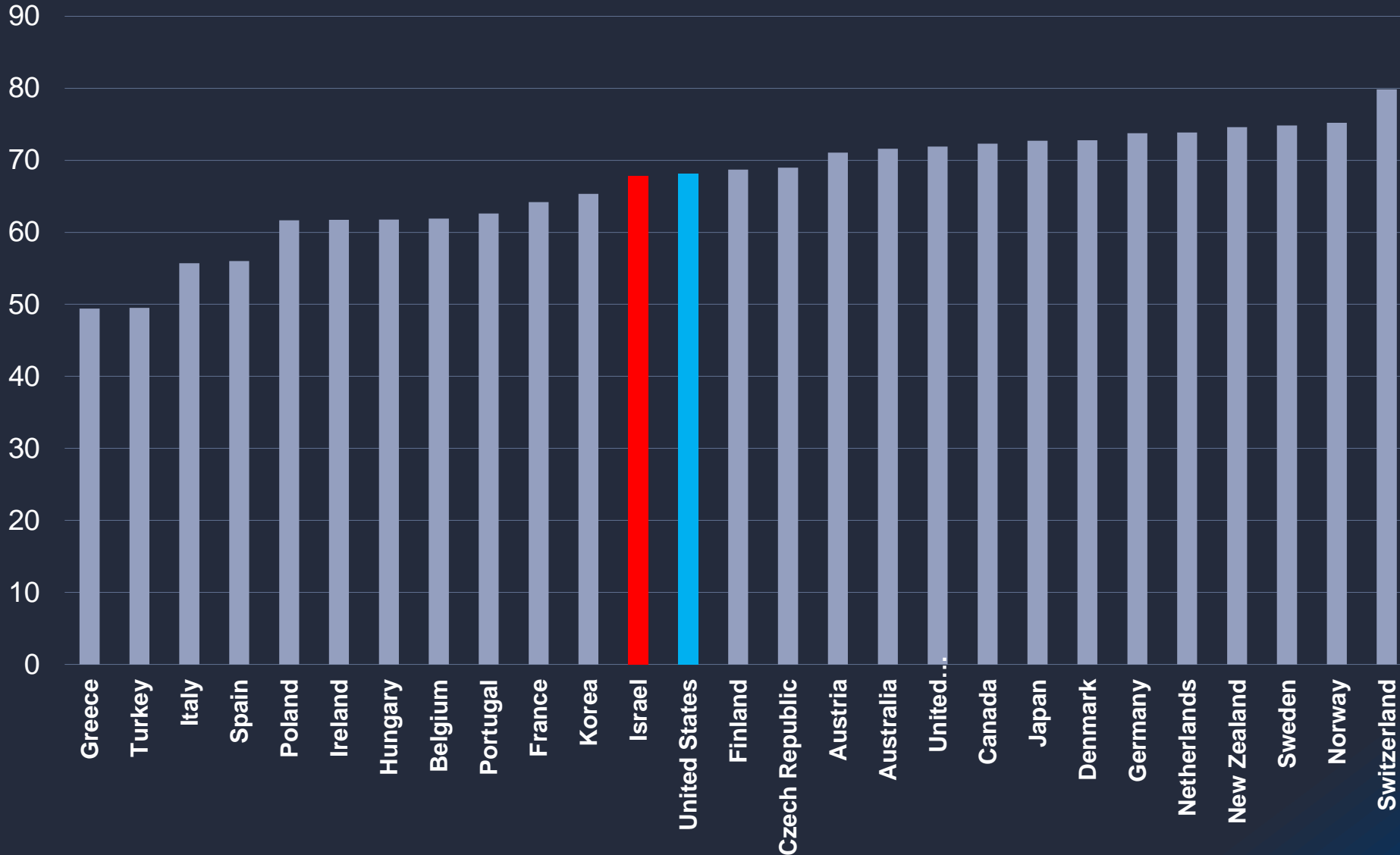
Employment Rate Israel 1995 - 2014

(percent)

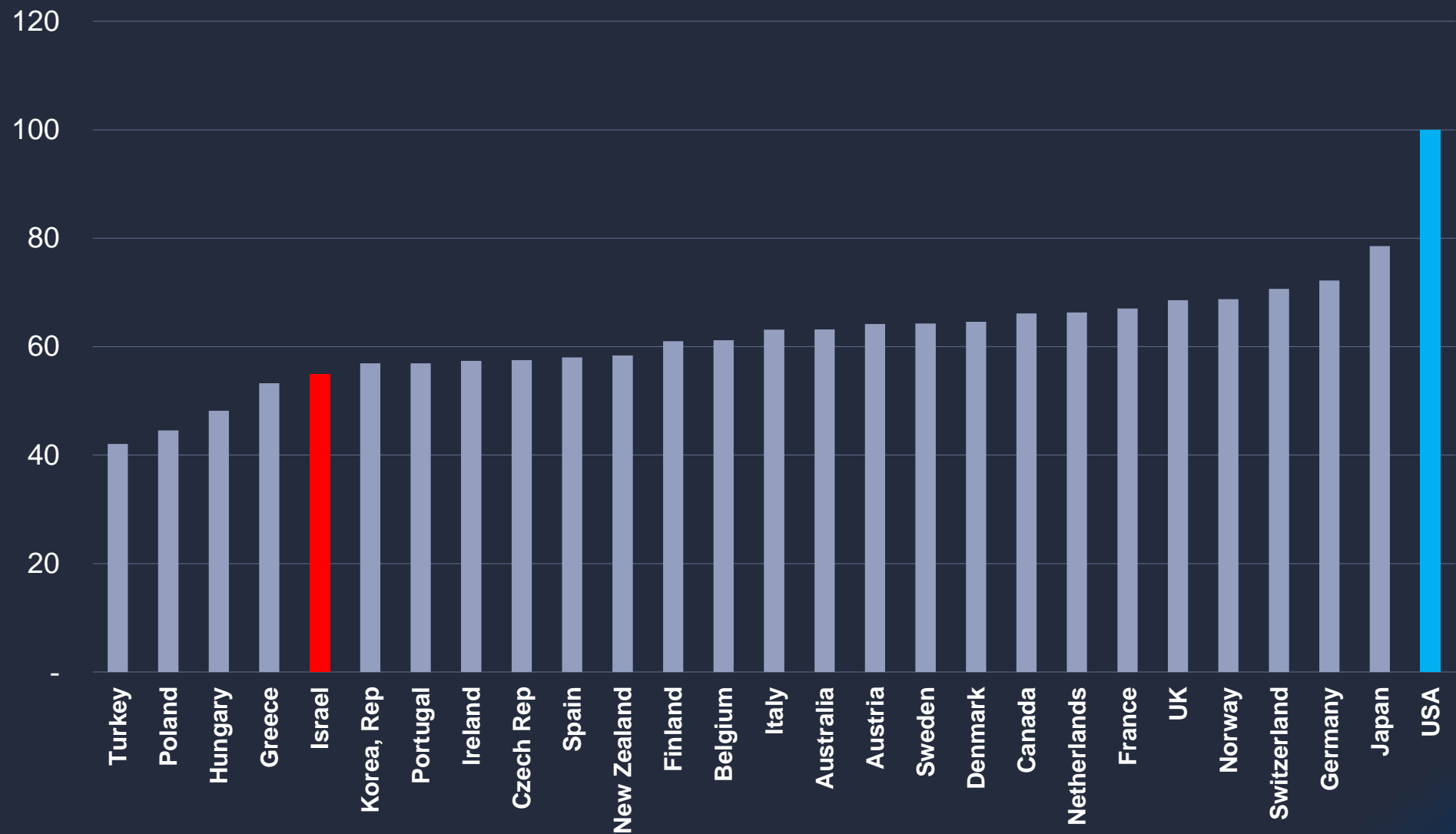


Employment Rate

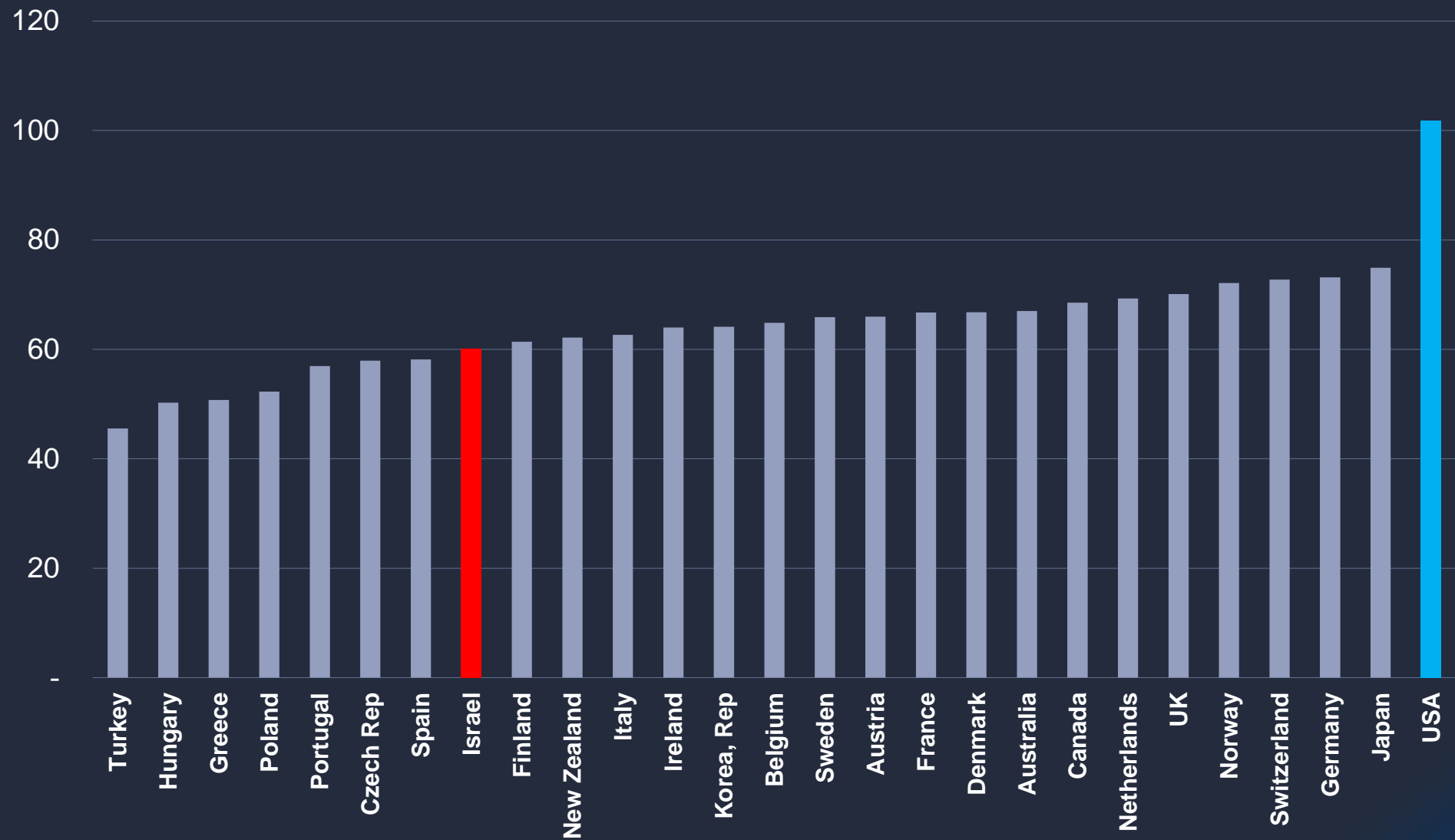
(The latest available data point, Percent)



Economic Social Base - 1990

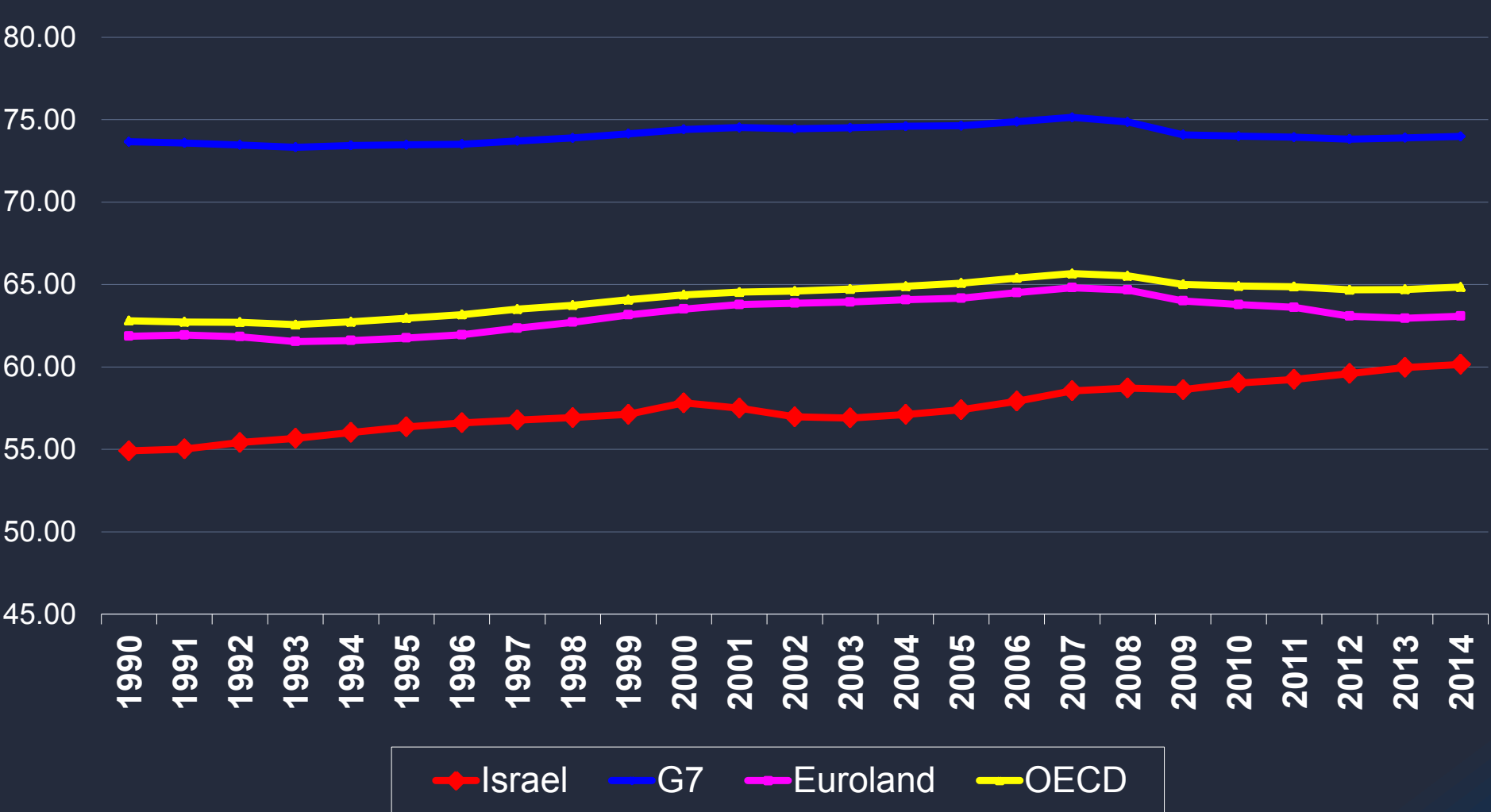


Economic Social Base - 2014



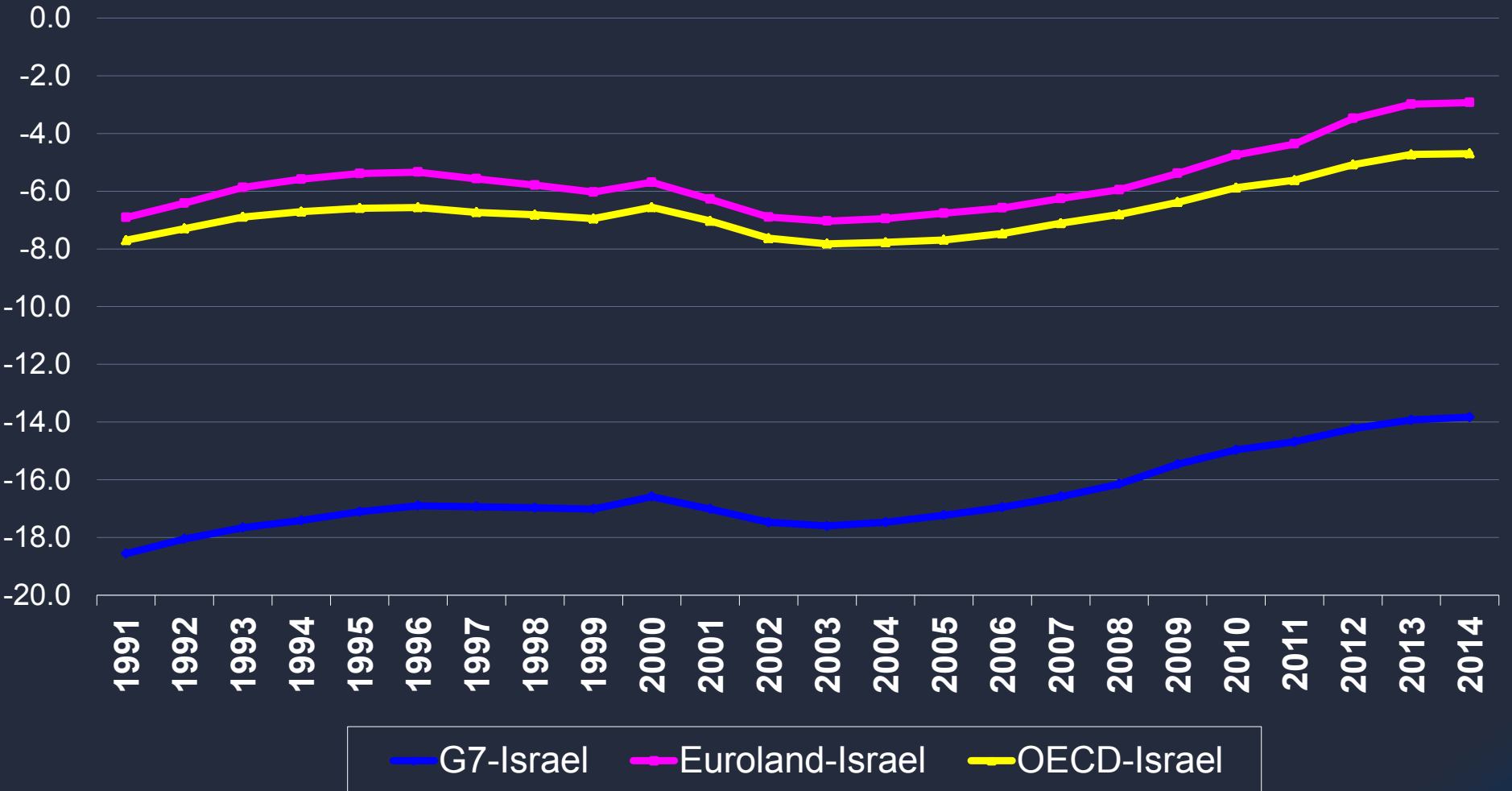
Development of the Economic Social Dimension

Israel and the Developed Countries



Economic Social Dimension Gap

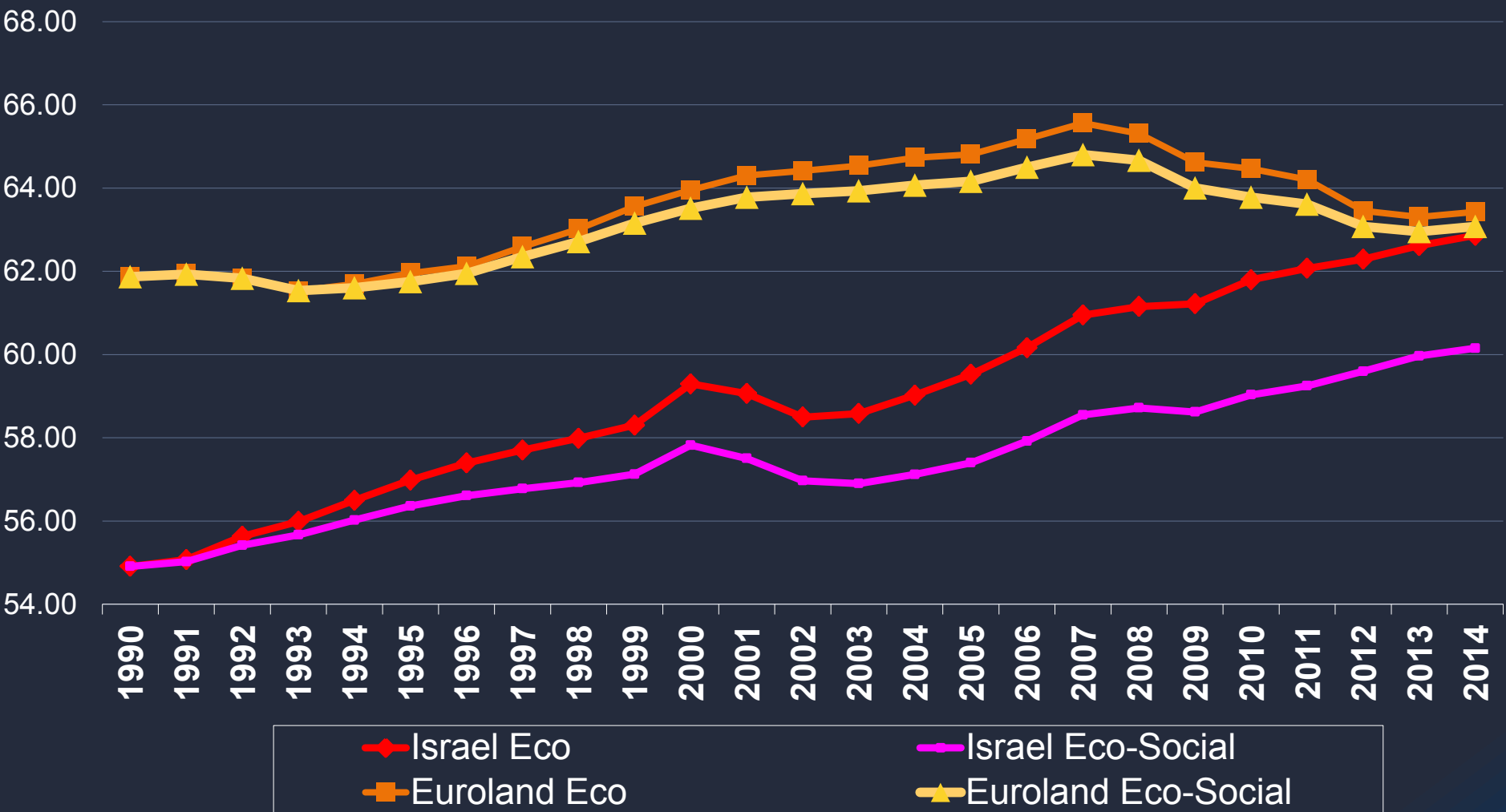
Israel and the Developed Countries



Economic Social Index 2014

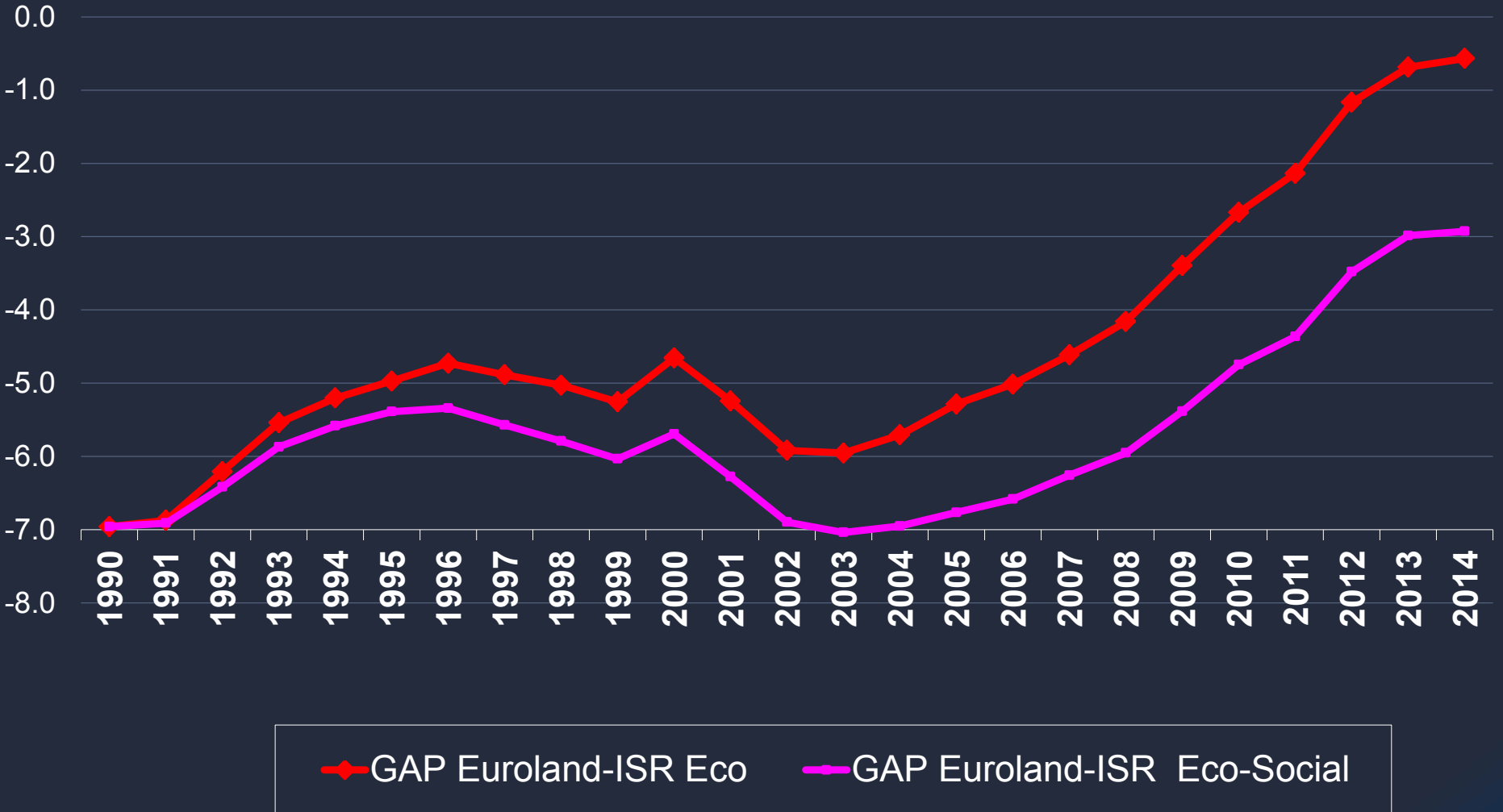
1	USA	101.83	17	Italy	62.65
2	Japan	74.91	18	New Zealand	62.15
3	Germany	73.14	19	Finland	61.39
4	Switzerland	72.75	20	Israel	60.15
5	Norway	72.12	21	Spain	58.16
6	UK	70.12	22	Czech Rep	57.93
7	Netherlands	69.30	23	Portugal	56.95
8	Canada	68.52	24	Poland	52.28
9	Australia	67.02	25	Greece	50.76
10	Denmark	66.77	26	Hungary	50.24
11	France	66.71	27	Turkey	45.56
12	Austria	65.96			
13	Sweden	65.87			
14	Belgium	64.84			
15	Korea, Rep	64.11			
16	Ireland	63.98			

Development of the Economic and the Economic Social Dimension a Comparison Israel and the Developed Countries



Economic and Economic Social Dimension Gap

Israel and the Developed Countries



Thank you