Public Spending in Israel over the Long Run

Dan Ben-David*

Abstract

One particularly notable finding characterizing Israel's civilian government expenditures (i.e. excluding defense spending and interest payments) over the past couple of decades is their fairly remarkable stability, in historical perspective as well as in comparison with other countries. While Israel has undergone some fairly seismic events during this period, government after government has managed to maintain considerable stability in civilian spending. Israel's uniqueness stands out especially over the past five years where the ratios of expenditures to GDP have fallen slightly while they have risen in most of the West. But fiscal responsibility of this kind requires very judicious use of the available budgets and in this realm Israel has been far less successful. It has one of the worst education systems in the industrialized world and it provides welfare assistance and subsidies on a scale that enables one of the highest rates of male non-participation in the labor force.

* Prof. Dan Ben-David, Executive Director, Taub Center; Department of Public Policy, Tel-Aviv University; Research Fellow, CEPR, London.

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If one were to try and conjure up an image that could best reflect the dynamic history of the State of Israel, it would probably be that of a pinball machine game, with the country seemingly ricocheting from one major event to another since it attained independence in 1948. This unique historical attribute can make an analysis of its government budget something of an art form. The choice of start and end points can often produce substantially different perspectives on ostensible trends.

Critical events seem to occur at a rate of about one or two – sometimes more – each decade. In the 1970s, the country was completely surprised when Egypt and Syria launched an all-out attack in the 1973 Yom Kippur War – only to experience a sea-change in its regional fortunes when it signed a peace treaty with Egypt at the end of the decade. The 1980s proved no less eventful. The 1982 war in Lebanon highlighted the shift to a new national security paradigm of warfare with non-state entities engaged in terrorism. This was coupled with hyperinflation in the first half of the 1980s – surpassing 20 percent per month at times. The two crises brought the country to the economic brink. A major stabilization plan prevented the freefall in 1985 while the intifada at the end of the decade provided a sign of things to come.

In the 1990s, a massive influx of poor although often highly educated immigrants from the former Soviet Union increased Israel's population by about one-fifth in just half a decade. Later that decade a prime minister in the midst of a major peace process with the Palestinians was assassinated. The first decade of the new millennium heralded an unprecedented wave of terror on Israel's civilian population, plunging the country into its deepest recession since the 1960s and bringing it once again to the economic brink with spiraling devaluations of its currency and severe difficulty in securing loans from abroad to help finance its debt. A number of major policy changes were enacted to avert the freefall and by mid-decade the country's recovery yielded rates of economic growth above those in most industrialized countries. The latter part of this past decade witnessed a major recession in the Western world. Though not immune to this severe downturn, Israel's economy emerged from the global recession more quickly and in much better condition than most other countries.

With such a chaotic timeline, it is more important than ever to take a step back and look at the big picture, to distinguish between returns to trend and systemic changes – and to see what trends, if any, emerge from the substantial fluctuations. One very clear change in Israel's economic growth occurred in the 1970s, when the country moved from a steep high-growth path to a much shallower, and surprisingly stable (despite some sharp fluctuations around it), slow-growth long-run path that has caused the country to fall steadily farther behind the leading Western economies (more in Ben-David, 2010a).

The *State of the Nation Report 2009* provided a long-term perspective of Israel's budgetary expenditures since 1970, how they evolved over the decades and how the internal distribution shifted from defense towards social expenditures (Ben-David, 2010c). This year's examination continues in this vein using both historical as well as international comparisons to illuminate the big picture.

1. *Israel and the OECD on Crossing Paths for Two Decades*

Although total public expenditure in Israel began to fall in the 1980s after the signing of the peace treaty with Egypt and the inflation stabilization plan in mid-decade, Figure 1 shows that in 1990 total public expenditures still reached 55.9 percent of Israel's GDP, a spending share greater than in 22 of 23 OECD countries that year (only Sweden spent more).[1] By the year 2000, Israel had moved from second place to fifth as its spending fell to 51.5 percent of GDP. As the country emerged from its deep recession at the beginning of this past decade, the share of its public expenditures to GDP had dropped to 49 percent in 2005, moving the

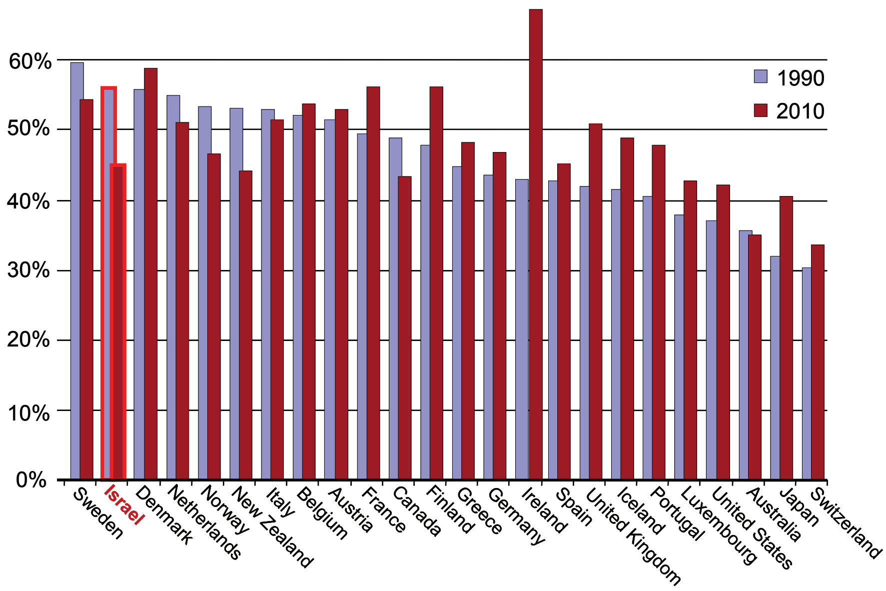
1 Data from the OECD's December 2010 Economic Outlook.

country down the ladder to seventh place. By 2010, as much of the Western world was still deep in a major recession that led to increases in spending to GDP ratios, Israel's fell further – to 45 percent, placing it below 16 of the 23 OECD countries (Figure 1).

Figure 1

Total public expenditures

as a percent of GDP, 1990 and 2010



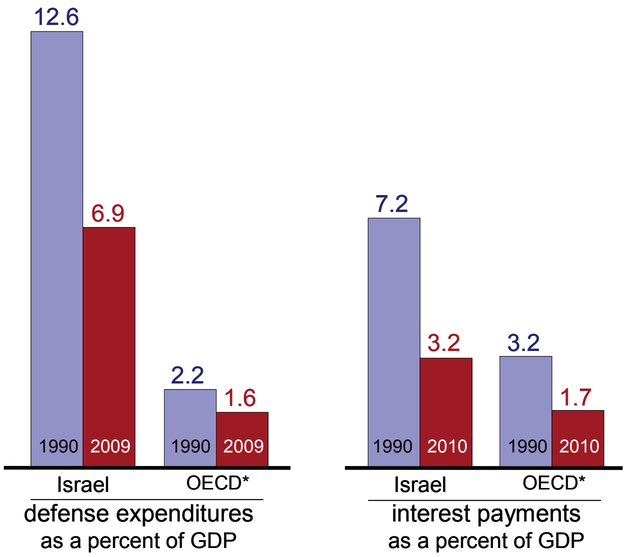
Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: OECD.

The primary source of the decline in the expenditures to GDP share was sharp reductions in the rate of increase of defense expenditures relative to the rate of increase in GDP. While GDP rose by an average of 4.5 percent a year between 1990 and 2010, defense spending rose by 1.6 percent a year during this period. As a result, the share of defense expenditures in GDP (Figure 2) fell from 12.6 percent of GDP in 1990 (compared to 2.2 percent on average in the OECD) to 6.9 percent in 2009 (1.6 percent in the OECD). This drop of 5.7 GDP percentage points translates into NIS 46.3 billion (or 12.4 billion dollars) out of Israel's GDP in 2010 that would have been spent on defense had priorities not changed.

Figure 2

Defense expenditures and interest payments

as a percent of GDP, 1990 and 2010



* 23 OECD countries.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: OECD and World Bank.

A large portion of this reduction in expenditures (relative to GDP) went towards reducing the overall public spending share while some of it was shifted towards social expenditures – whose share out of the total budget increased substantially (see Ben-David 2010c, “Public Expenditures – A Look at Israel’s National Priorities” for details). The decline in the share of overall public expenditures to GDP enabled Israel to sharply reduce its debt-GDP ratio from 284 percent of GDP in 1984 to 76 percent in 2010. This compares with movement in the opposite direction by the average of 23 OECD countries during the same period, from 57 to 82 percent of GDP – with Israel and the OECD switching places this past year.[2]

The sharp drop in borrowing (needed to finance the debt) caused net interest payments on the national debt to fall from 7.2 percent of GDP in 1990 to 3.2 percent of GDP by 2010 (Figure 2). Israel is now where the OECD was in 1990 in terms of interest payments on its debt, while the OECD’s interest payments have since fallen to 1.7 percent of GDP by 2010.

2. *Two Decades of Stability in Israeli Civilian Expenditures Versus Fluctuations in the OECD*

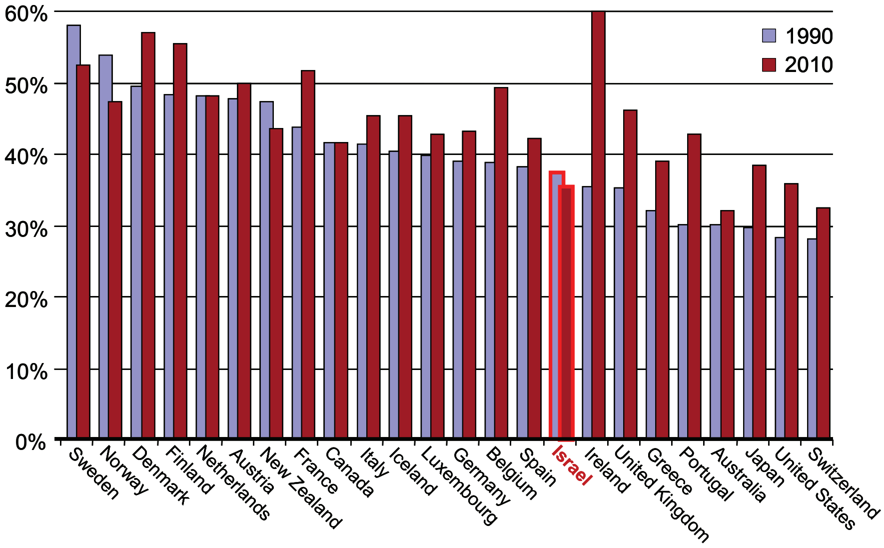
Removing defense expenditures and interest payments from a country’s general public expenditures yields its remaining civilian expenditures. In Israel, the share of these expenditures to GDP was above eight of the 23 OECD countries in 1990 (Figure 3). Though this share fell slightly in Israel over the next 20 years, it rose in 19 of the 23 OECD countries. By the year 2010, civilian public expenditures in Israel stood at 34.9 percent of GDP, below all but two of the 23 OECD countries (Switzerland and Australia, at 32.5 and 32.1 percent, respectively).

[2] Data from Bank of Israel Report 2010 and OECD Economic Outlook No 88 (December 2010).

Figure 3

Civilian public expenditures

not including defense expenditures and interest payments, as a percent of GDP
1990 and 2010



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: OECD, World Bank and Bank of Israel.

In light of the very volatile events (wars, hyperinflation, massive immigration, political assassination, etc.) that have characterized Israel over the past several decades, the relative stability of its civilian public spending – compared to what took place in the West over the same period – might come as a surprise. The 34.9 percent share of GDP in 2010 was similar to the 37.3 percent spent on civilian public expenditures in 1990.

In fact, this stability in spending was fairly unique compared to the other OECD countries (Figure 4a – top panel). During the decade and a half between 1990 and 2005, civilian expenditures (as a share of GDP) in the OECD countries exhibited some major fluctuations. These ranged from increases of 37, 23 and 21 percent in Portugal, Japan and Belgium to spending cuts of 21, 20 and 14 percent in Norway, New Zealand, and the Netherlands, respectively. In contrast, the share of civilian expenditures to GDP in Israel was the same in 2005 as it was in 1990.

The past five years have been characterized by a major global recession that affected many countries quite severely. As a result, civilian public expenditure rose in all but one of the 23 OECD countries, with an average increase of 12 percent between 2005 and 2010 (bottom panel of Figure 4). Having experienced its major recession at the beginning of the last decade rather than at its end like most other countries, Israel reduced its civilian expenditures by six percent, standing out – together with Switzerland – as the only countries that cut their spending share in 2005-2010. As a result, Israel's civilian public expenditures in 2010 are below 21 of the 23 OECD countries.

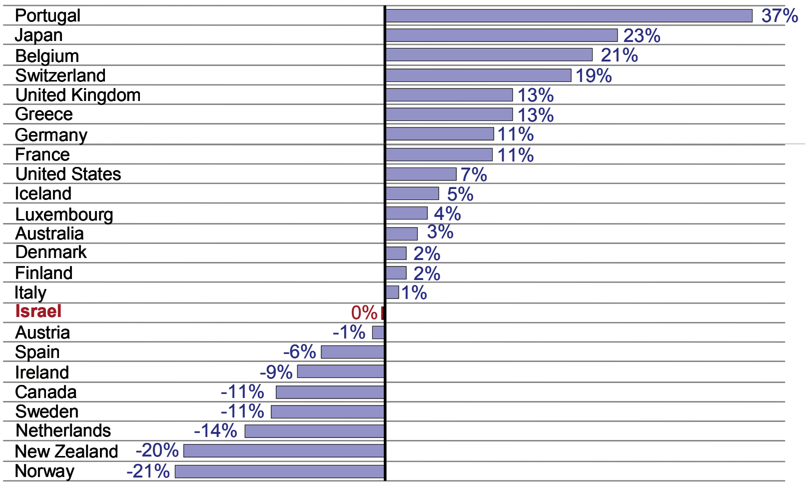
With such low amounts of public funds available for civilian needs, Israel needs to make very judicious use of its expenditures. There is relatively less available from the overall pot in Israel for special interests and sectoral demands. In a region that is undergoing considerable unrest since the beginning of 2011 – and in light of its history of experiencing several critical events each decade – Israel needs to preserve the precious few degrees of freedom that it has available in its budget and spend them wisely.

Figure 4

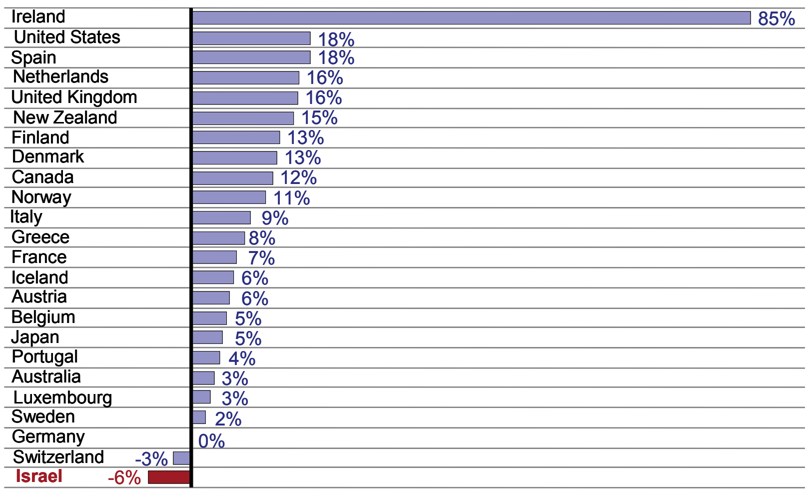
Changes in civilian public expenditures

not including defense expenditures and interest payments, as a percent of GDP

4a. Changes in 1990-2005



4b. Changes in 2005-2010*



* subtracting defense expenditures in 2009 as estimate for 2010.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: OECD, World Bank and Bank of Israel.

3. *Government Spending – A Closer Look at the Trajectory*

The common practice of examining public expenditures as a share of GDP has many important attributes and benefits. However, there is also one distinct disadvantage that can lead to confusion about changes in expenditure that are in relative versus absolute terms. A fast-growing country may witness a decline in its ratio of expenditures to GDP even if it increases its expenditures. It is sometimes useful to distinguish between the behavior of its expenditures and the behavior of GDP in order to understand better the changes that evolve over time in each.

GDP per capita is the common measure for a country’s average standard of living. While it has its drawbacks, it is, nonetheless, a key tool because it is easily compared over time and between countries.

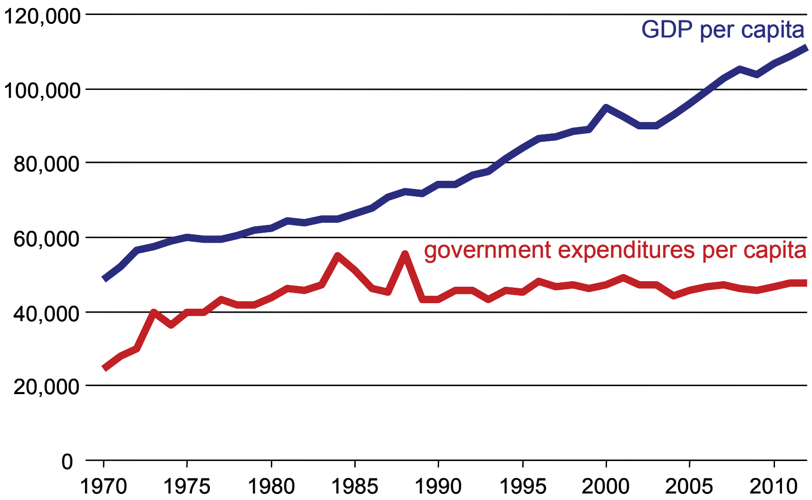
With regard to expenditures, the focus in the following analysis will be on the central government budget, which comprises the bulk of public expenditures. All budget numbers through 2010 reflect actual expenditures while the numbers for 2011 and 2012 reflect the budget passed by the government for these years. Expenditures may rise for a variety of reasons – for example, inflation, population changes, emergencies and political decisions that alter budget composition and overall totals. Focusing on changes in national priorities requires controlling for “natural” changes such as changes in population and inflation. Hence, real expenditures per person provide an indication of the annual public expenditures that “net out,” or discount, inflation and account for population increases.

Figure 5 shows how Israel’s standard of living and its government budget evolved over the past four decades, since 1970. Until the mid-1980s, both GDP per capita and expenditures per person exhibited growth – more so in expenditures than in GDP. Since 1990, the picture has changed markedly: while GDP per capita continued to rise, spending per person stabilized and has remained relatively constant since then.

Figure 5

Total government expenditures and GDP per capita

1970-2012, in 2010 NIS



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

Not only have the two periods differed from one another in terms of the long-run increases in output and expenditures, there has also been a change in relative volatility along each of the long-term paths. Until 1990, growth in GDP per capita was relatively steady (aside from the change in long-run growth path that occurred in 1973)[3] compared to the fluctuations in expenditures per person. The 1973 Yom Kippur War and its aftermath, the hyperinflation of the early 1980s and the subsequent Stabilization Plan, along with a large debt repayment in 1988 account for the notable spikes in expenditures during these periods. Since 1989

3 For an analysis and a graphic depiction of the change that occurred in Israel's long-run growth path in 1973, see Ben-David, 2010a.

however, expenditures per person have been subject to fewer large changes than has GDP per capita. Furthermore, while the country's standard of living has been steadily rising over the past two decades, real government expenditures per person have hardly changed, growing at 0.4 percent a year between 1990 and 2010.

Since children and the elderly require a disproportionate share of government spending – on schools for the former and on healthcare for the latter – it is interesting to compare expenditures over time after controlling not only for increases in prices and population, but also after accounting for the changing composition of the population. One way to do this is by weighting the population each year by the annual ratios of children (1-17-years-old) and the elderly (65+) to the 18-64-year-old population – a form of dependency ratio.[4] Discounting total expenditures in constant prices by this standardized measure of the population yields a slight decline in real government expenditures per person, by 0.4 percent a year between 1990 and 2010.

Taking into account the fact that higher living standards are generally reflected in higher wages, the relative steadiness in spending since 1989 is all the more interesting. It would appear to be a sign of a concerted fiscal effort to control costs, an effort that exhibits long-run perseverance that is rather remarkable in light of the political instability that has characterized Israel over these years.

Figure 6 breaks down the long-term trends into annual changes (depicted in five-year moving averages) in living standards and spending per person. Relatively steady growth in percentage terms is reflected in increasing annual increments. This is the case with GDP per capita, with the severe recession of the early 2000s clearly visible in the graph. Nonetheless, the trajectory depicting growth in living standards is always positive, indicating that these have been steadily rising over time.[5]

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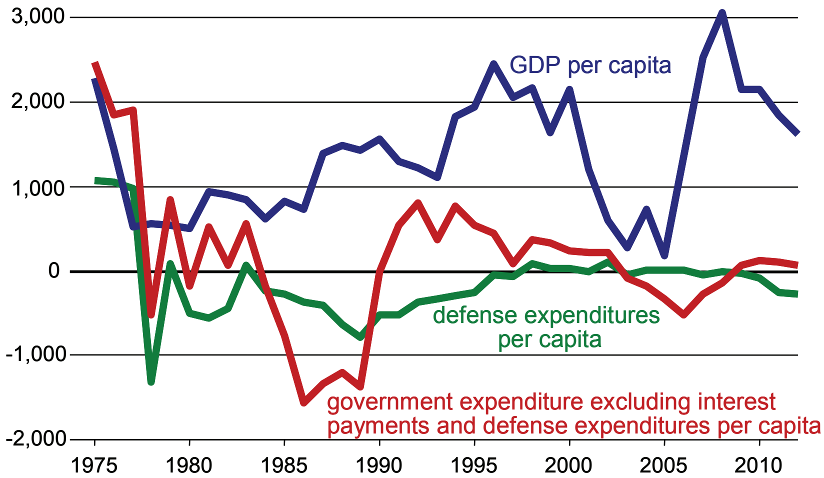
[4] The formal dependency ratio is defined as the ratio between 0-14 and 65+ year-olds to 15-64-year-olds.

[5] Note that these are five-year moving averages. There were a few individual years in which GDP per capita actually fell.

Figure 6

Annual changes in government expenditures and in GDP per capita

1975-2012*, in 2010 NIS



* five-year averages.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

Defense expenditures per person, on the other hand, have either been falling or have remained unchanged since the latter half of the 1970s. Interest payments per person (not depicted in the graph) exhibited rising increases until the mid-1980s Stabilization Plan. Since then, with the exception of parts of this past decade, interest payments have been falling.

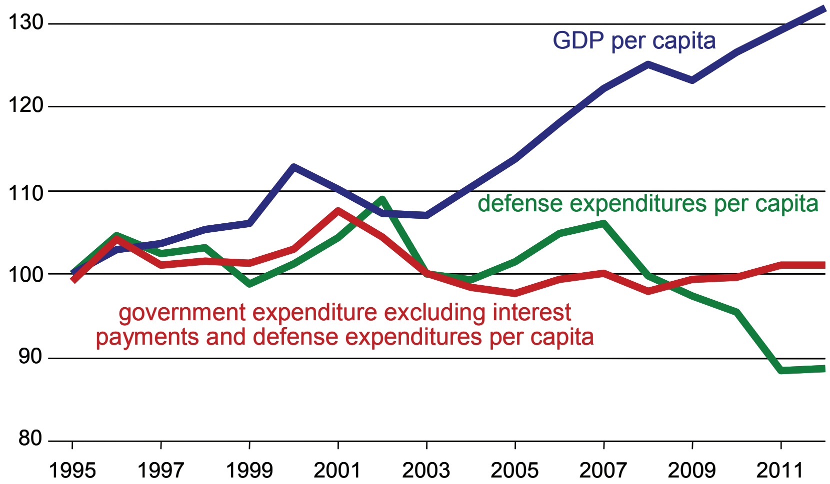
The removal of defense expenditures and interest payments leaves civilian expenditures per person. For the most part, these exhibited increases in the 1970s and first half of the 1980s – sometimes very substantial ones. The effects of the 1985 Stabilization Plan targeted at eliminating the hyperinflation can be seen in the cuts in civilian spending during the latter part of the decade. Civilian spending per person fell substantially until the large wave of immigrants arrived from the former Soviet Union. The related expenditures led to overall spending increases that are evident in the figure. Since the latter half of the 1990s, there have been very few substantial departures from the long-run spending path per person – with counter-cyclical spending that rose during the recession of the early 2000s, fell during the high growth rebound, and rose again during the recent global recession.

As a result, a comparison of cumulative changes since 1995 (Figure 7) shows that while living standards rose by over 30 percent, defense spending and government civilian expenditures per person remained relatively steady throughout – with the former falling by over ten percent in the defense budgets planned for 2011 and 2012 (barring any unexpected consequences of the general turmoil that began throughout the Arab world in early 2011). Real civilian expenditures per person are expected to be just two percent greater in 2012 than they were in 1990.

Figure 7

Government expenditures versus GDP per capita, 1995-2012

in constant prices, base year is 1995



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

4. *Changes in the Composition of Government Spending over Time*

The relative steadiness in civilian expenditures per person over the years – compared to GDP per capita – has coincided with changes in the allocation of the government budget. When it comes to social expenditures, such as welfare, health and education, not all areas of government spending remained relatively frozen in time.

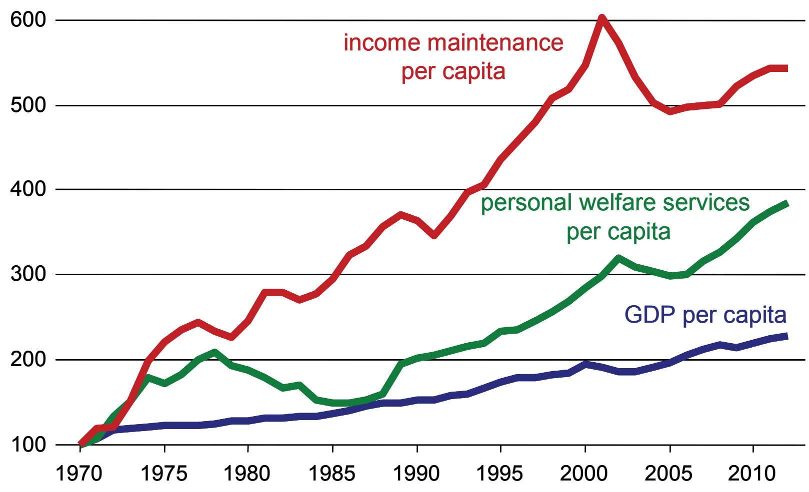
4.A. *Social Welfare Expenditures*

Figure 8 depicts the cumulative changes in income maintenance payments as well as personal welfare services expenditures per capita. These are compared with GDP per capita. The base year in the graph is 1970. The fact that GDP per capita rose to just over 200 means that living standards in Israel slightly more than doubled. At the same time, personal welfare services per person rose 3.6 fold while income maintenance per person is over 5.3 times what it was in 1970.

Figure 8

Government welfare expenditures versus GDP per capita, 1970-2012

in constant prices, base year is 1970



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

These increases, primarily the latter, are intended to counteract the high and rising – over the long-run – rates of poverty and income inequality in Israel. A large share of families would have lived under the poverty line had they not received assistance – approximately one-quarter of Israel's families in the late 1970s and almost one-third today. With welfare assistance, the share of families under the poverty line was 19 percent[6] in 1979 and is only slightly higher, at around 20 percent, in recent years. This means that welfare assistance has had to increase substantially over the decades just to prevent rates from rising further without effectively reducing the actual poverty rates in gross incomes.

Even since 1995, the changes in transfer allowances have been substantial (Figure 9). In monetary terms, personal welfare services reached NIS 683 per capita in 1995 (all numbers are in terms of 2010 NIS). These rose by 28 percent over the next decade, reaching NIS 871, and a further 29 percent rise is expected through 2012, with expenditures reaching NIS 1,123 per capita.

Income maintenance payments are substantially higher, averaging NIS 5,657 per capita in 1995. The long-term rising trend since the seventies was so steep that in just six years, between 1995 and 2001, the payment increased by 38 percent, reaching NIS 7,809 per person. The tremendous economic and fiscal strains brought on by the wave of terrorism from the *intifada* in the early 2000's required substantial cuts in welfare payments, with reductions of 18 percent per person by 2005, and payments falling to NIS 6,373. These have subsequently rebounded somewhat and are expected to rise by ten percent by 2012, to per person payments of NIS 7,036. When the sharp ups and down are accounted for since 1995, income maintenance payments per capita increased cumulatively by 24 percent over these 17 years.

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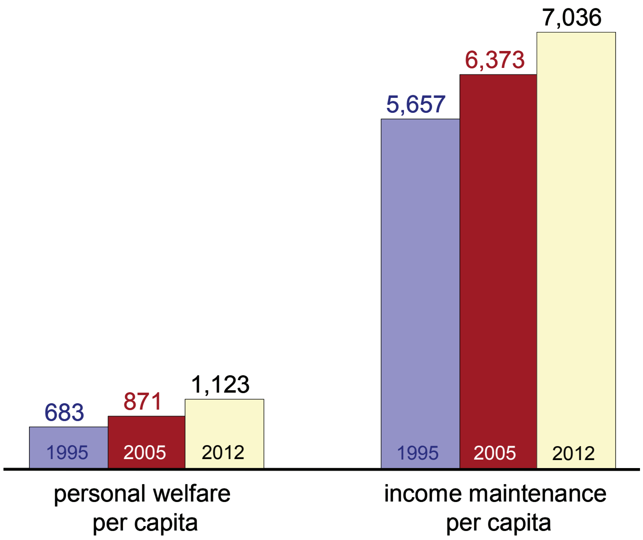
[6] 1979 data adjusted to new series that includes non-salary workers and East Jerusalem residents.

Figure 9
Social expenditure per capita
1995-2012, in 2010 NIS



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

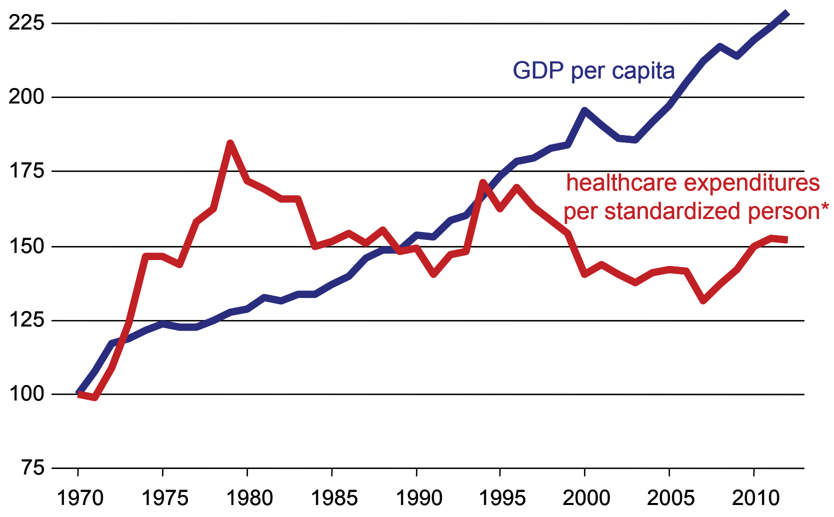
4.B. *Healthcare Expenditures*

The healthcare expenditure picture is substantially different. Using Israel's capitation formula for standardizing the population according to age groups, it is possible to calculate how healthcare spending per standardized person has changed over time. Government expenditures per standardized person grew by 84 percent in real terms between 1970 and 1979 (Figure 10). From that point on, government healthcare spending per person has been falling over much of the past three decades. The primary exception to this long-term trend was with the implementation of systemic healthcare reform in Israel in the mid-1990s. Healthcare spending jumped from NIS 2,671 per person 1991, by 16 percent to NIS 3,090 in 1995, at the height of the immigration from the former Soviet Union.

Figure 10

Health expenditure per capita versus GDP per capita, 1970-2012

in constant prices, base year is 1970



* population groups weighted by capitation formula.

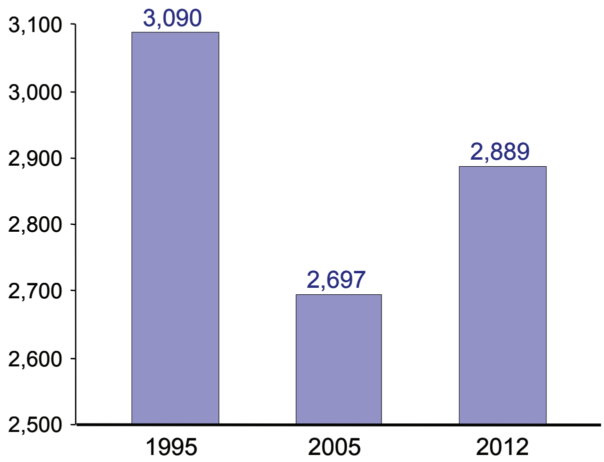
Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

After implementation of nationwide healthcare reform and the increase in spending that accompanied it, real healthcare expenditures per person fell by 13 percent to NIS 2,697 by 2005 – roughly where it had been prior to the reform in the mid-1990s (Figure 11). Since then, healthcare spending has rebounded somewhat, and is expected to rise by seven percent to NIS 2,889 per person – still six percent below 1995 levels.

Figure 11

Health expenditures per standardized person*

1995-2012, in 2010 NIS



* population groups weighted by capitation formula.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

As Chernichovsky (2010) has shown, these cuts in public healthcare spending have gradually shifted Israel towards an American-type distribution between private and public health expenditures, and away from the mix that is common in other OECD countries. Work by Chernichovsky and Navon (2010) indicates that the brunt of this shift away from public expenditures is borne by the poorer segments of society.

4.C. *Education Expenditures*

Education spending over the past three decades has been anything but uniform across different school levels and different periods. Spending per pupil in pre-primary schools has always been at the bottom of the education list, and this continues to be the case today. Next are primary school education expenditures per pupil, and above these are secondary school expenditures per pupil. At the top are higher education expenditures per student.

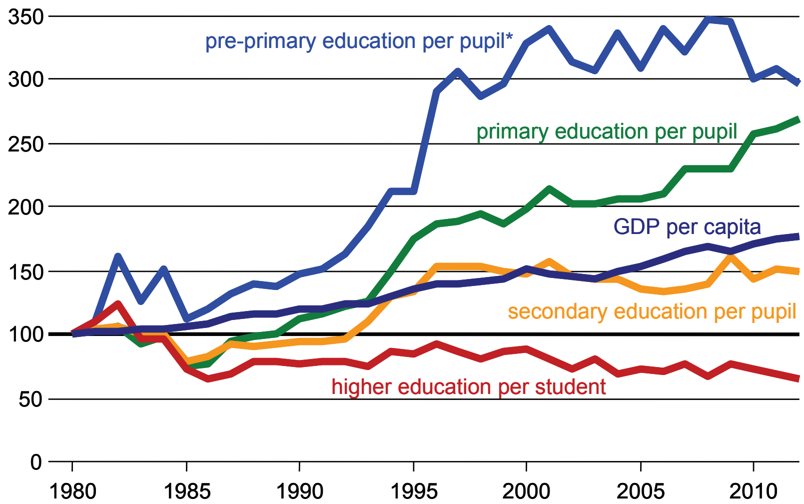
Figure 12 shows how education expenditures developed since 1980, with respect to one another, and with respect to Israel's standard of living. Over the entire time span, pre-primary, primary and secondary education spending per pupil have grown in real terms, although secondary education spending has not kept up with growth in GDP per capita.

At the two educational extremes, higher education and pre-primary education, government spending has gone in completely different directions since 1980. Pre-primary education spending per pupil in 1985 was twelve percent greater in real terms than it was in 1980. In the mid-1980s, these expenditures took off. By 2008, they had risen by an additional 258 percent. That said, pre-primary school expenditures per pupil were still far below spending in primary education, secondary education and higher education. Since 2008, government expenditures on pre-primary schools have fallen and with the passing of the 2011 and 2012 budgets, they are expected to be 23 percent lower by 2012, though they are still over 200 percent more than they were in 1980.

The watershed year in Israeli education was 1992. In June of that year, Yitzhak Rabin was elected prime minister. Among the fundamental changes in national priorities that he tried to implement before his assassination in November 1995 was a major change in direction with regard to the funding of education in Israel.

Figure 12

Education expenditures per student versus GDP per capita, 1980-2012, in constant prices, base year is 1980



* prior to 1998 the number of pupils in pre-primary education included 2-year-olds.

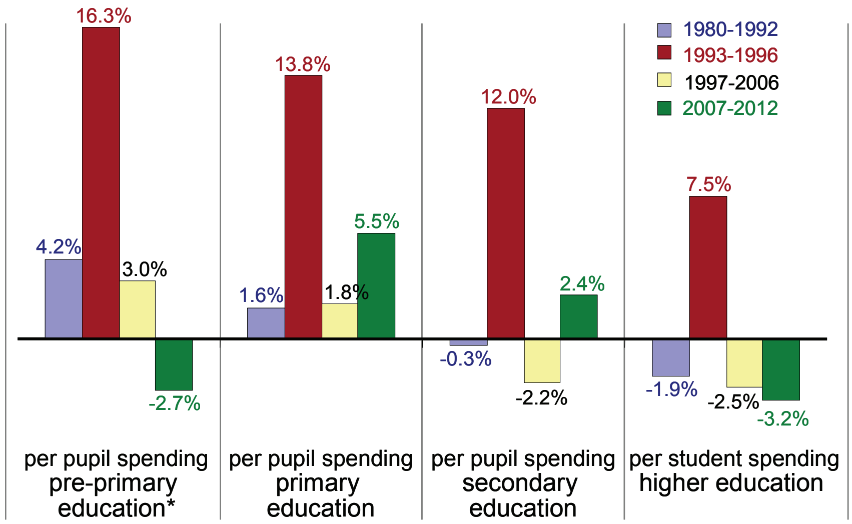
Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

The years in which the Rabin administration determined the government budget were 1993 to 1996. The increases in education spending per pupil across all education levels during this period stand out (Figure 13). In primary and secondary education, real changes in government spending had been minimal between 1980 and 1992, with primary education expenditures per pupil rising by 1.6 percent a year on average, while secondary school spending actually fell slightly (by 0.3 percent on average) during this period. During the Rabin budget years of 1993 to 1996, primary school expenditures per pupil rose by 14 percent a year in real terms while secondary school expenditures rose by 12 percent a year.

Figure 13

Annual changes in education expenditures per student

1980-2012



* for pre-primary education groups, the years are 1999-2006. Prior to 1998, the number of pupils in pre-primary education included 2-year-olds.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Finance Ministry and Central Bureau of Statistics.

Unfortunately, these massive increases in spending were an opportunity lost. They were not accompanied by a similarly extensive systemic reform, and as is shown in Spotlight A, the achievement levels of Israeli pupils have consistently been below all 24 OECD countries since 1999.[7]

[7] It is not possible to conduct any meaningful comparisons of Israel's pupils prior to 1999 because of sample selection problems, although earlier international exams comprising only non-*haredi* Jewish students in the mid-1990's showed that their achievement levels were below average OECD levels.

Spotlight A: Changes in Educational Achievement Versus Changes in Expenditure

Dan Ben-David

The lack of an ability to utilize increased education spending for systemic improvements is not unique to Israel. Focusing on five European countries (Belgium, France, Germany, Italy, and the United Kingdom) as well as on Japan, Australia and New Zealand, McKinsey (2007) shows that substantial increases in real education expenditures per pupil were accompanied by almost no changes at all – just minute positive and negative changes – in student achievements between 1970 and 1994.

In the United States, real expenditures per pupil in primary and secondary public schools rose by 90.2 percent between 1980 and 2008. Since most of this expenditure goes towards salaries, and since these salaries are tied in one way or another to increases in the country's standards of living, then a possibly more accurate gauge of changes in expenditure per pupil is reflected in the measure after it is discounted by GDP per capita. Real education expenditure per pupil reduced by GDP per capita has increased by 20.1 percent since 1980 (Figure 14).

The increase in public spending per pupil has been accompanied by only slight improvements in mathematics and reading achievements. According to National Assessment of Educational Progress (NAEP), while 9-year-olds in public schools showed an improvement of 11.5 percent in math between 1978 and 2008, their improvements in reading rose by only 1.9 percent during the similar period of 1980-2008. Math achievements for 13-year-olds rose by 6.5 percent while their reading scores barely rose – by just 0.4 percent.

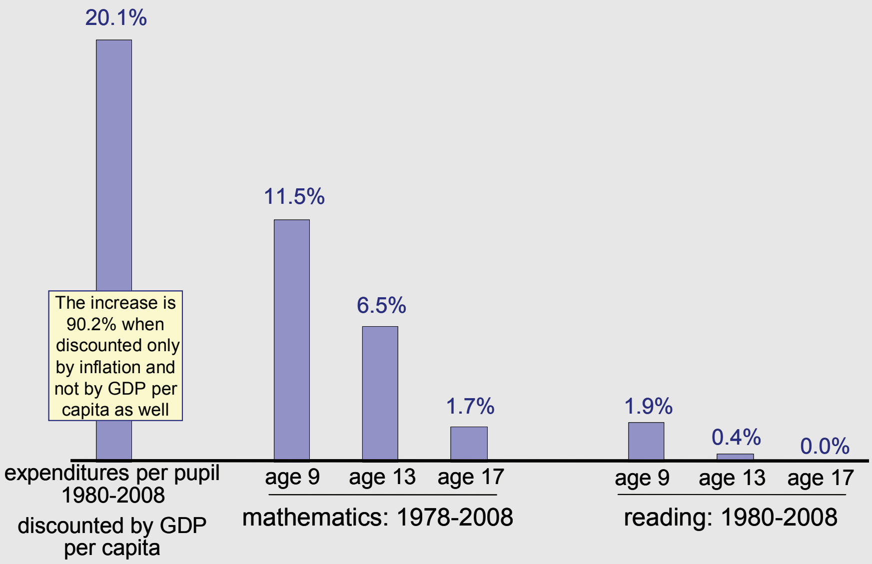
In the final analysis, the achievements of 17-year-olds mark the cumulative learning of pupils in the primary and secondary school system. Their math scores rose by just 1.7 percent over the three decade span while there was absolutely no change in their reading scores.

Unfortunately, until recently Israel's education system failed to examine its pupil population in tests that were comparable – i.e. calibrated – over time. Consequently, there is no way of measuring the changes in achievements over the decades and establishing whether the current low levels of achievement relative to the 24 OECD countries (see "Israel's Educational Achievements: Updated International Comparisons" in this volume) has always been the case, or whether they represent a real deterioration over time.

Figure 14

Education achievements versus expenditures, United States

average changes in primary and secondary public schools, 1980-2008



Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: National Assessment of Educational Progress (NAEP), the Statistical Abstract of the US.

Though the lack of a strong relationship between spending increases and educational improvements is a problem shared with other countries, the implications of this inability to link the two are particularly problematic for Israel. The country's very poor educational achievements, the fact that it has been on a slower multi-decade growth trajectory than the G7 countries since the 1970s, and that its rates of poverty and inequality are among the highest in the industrialized world (see *State of the Nation 2009*, "A Macro Perspective of Israel's Society and Economy") are a potent mix. The strong relationship between educational achievement and economic growth found by Hanushek and Kimko (2000) and others serves to underscore the substantial socioeconomic repercussions that are the result of Israel's inability to translate spending increases into scholastic improvements.

Over the next decade, between 1997 and 2006, primary education expenditures per pupil rose only marginally, averaging 1.8 percent a year. Secondary education expenditures per pupil fell by 2.2 percent during this period. The increases in 2007-2012 of 5.5 percent annually in the primary schools and 2.4 percent annually in the secondary schools reflect a corrective measure (in the case of the primary schools, a new wage agreement with the primary school teachers' union was the main reason for the higher expenditures). As noted above, secondary education spending per pupil still rose by less than GDP per capita over the entire three decade span. A newly signed wage agreement with the secondary school teachers' union is expected to increase expenditures per pupil substantially in coming years. Both new wage agreements involve longer at-school work hours for teachers – though not necessarily more teaching hours. While these reflect a step forward in the area of compensation, they have been misleadingly hailed as "reforms" while representing only a fraction of the measures needed for actual systemic reform.

In fact, Israeli education policy in general appears to be more one of correcting course rather than of charting new courses – or reactive rather than proactive. Long periods of relatively stagnating education budgets tend to be followed by periods of sharp corrections whose effects are ultimately allowed to dissipate until the next period of correction. The problem is that when policy is more one of crisis intervention than prevention, solutions can be both costly and temporary. The endemic problems of Israel's education system are detailed extensively in both last year's and this year's *State of the Nation Reports*, and they require a comprehensive reform that will focus on what children learn, who teaches them and how they are compensated, as well as how the entire system allocates its limited budgets.

In the case of higher education, the level of the country's research universities is still considered to be very high in many disciplines, with the top students receiving graduate scholarships and fellowships to study at America's top universities. However, funding of higher education in Israel underwent a major reversal since the 1970s. Until then, the country had increased the number of its research universities to seven. Since then, numerous colleges at significantly lower academic levels have been created while not one additional research university has been established, although the country's population has doubled since 1973 and the percentage of the population going on to higher education has increased substantially. The fact that the expansion of higher education was slower than necessary is also discussed in Shavit and Bronstein in this book.

Non-research spending on higher education fell consistently since 1980, with just a few minor exceptions – the most notable of these between 1993 and 1996. Per student spending declined by an average of 1.9 percent a year between 1980 and 1992. After rising by 7.5 percent a year between 1993 and 1996, spending per student again fell by 2.5 percent from 1997 to 2006 and is expected to fall by even more between 2007 and 2012. The government has announced its intentions to increase overall spending on higher education during the next few years to try and reduce the academic brain drain that is unparalleled by any other country in the world. In the meantime, these proclamations have yet to find their way into the government budget.

5. *Conclusion*

One of the salient features of Israel's public expenditures over the past two decades is their relative stability. What makes this steady trajectory even more striking is that it has persisted over periods of tremendous internal turmoil and sharp political swings – a stability that also contrasts sharply with the volatility exhibited by most other Western countries.

On the one hand, the ability to control spending in such a fluctuating environment, and to do so more rigorously than many other countries that have undergone much less traumatic periods is a credit to the State of Israel. On the other hand, such fiscal responsibility also mandates a considerably more judicious use of the public's money. In this realm, the country's successive governments have been less than successful. This has also been the case with regard to government income, which is raised in a skewed and disproportional manner.

As former Finance Ministry Director-General Yarom Ariav points out in Spotlight B, government revenue planning leaves much to be desired. One could add to that the continued existence of a large shadow economy that creates a much larger tax burden on the fewer shoulders that bear it (Spotlight C).

On the expenditure side, welfare payments per person have been increasing steadily – more than five-fold over the past four decades, compared to just a doubling of the country's income per capita. This is unsustainable in the long-run. It has occurred while a very large and growing share of Israel's population is not receiving the necessary tools and conditions for working in a modern economy. As a result, the share of families that would have lived under the poverty line today (had they not received assistance) is roughly one-third – compared to "just" one-quarter in 1979 (Ben-David, 2010a, "A Macro Perspective of Israel's Society and Economy"). This personal inability to cope in a global workplace also translates into an increasing national difficulty to assimilate and develop new ideas and has been a major factor underlying the country's long-run growth path that has been steadily falling farther and farther behind the growth paths of the world's leading economies. Therefore, while Israel has justifiably been referred to as the "Start-Up Nation,"[8] this attribute applies to an ever-shrinking share of Israeli society.

Instead of utilizing the limited resources at its disposal in a manner that could initiate a positive and permanent change in the country's long-run socioeconomic trajectories, government after government have let an education system – once considered by many to be one of the best internationally – sink to the lowest levels in the developed world, with all of the growth, poverty and subsequent welfare repercussions implicit in this. The only systemic education reform passed by the government, by the Dovrat Task Force, a half-decade ago, was abandoned.

Many individuals who could work are receiving substantial amounts of government assistance while a large number of elderly and infirm are forced to live in abject poverty. The healthcare system, still one of the best in the world, is providing increasingly unequal care as the share of public expenditures has steadily fallen since the nationwide reform in the mid-1990s.

Fiscal responsibility is not just about controlling overall spending in unique circumstances. It also requires major, and often politically difficult, decisions regarding allocation. These are called *national priorities* – and Israel has a considerable distance yet to go in this realm.

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8 See Dan Senor and Saul Singer, *Startup Nation* (2009).

Spotlight B: Who Is Responsible for Tax Policy?

Yarom Ariav*

When examining the frequent changes in Israel's taxation laws it is difficult not to be surprised by the lack of consistency in policy. What is most striking is the lack of a comprehensive perspective and a guiding hand. Examples are many and varied: a reduction in the rate of direct taxation and an increase in indirect taxes, increases and decreases in VAT every day, a rise in the excise tax on petrol and then a rescinding of that increase a few weeks later, an intent to cancel the VAT exemptions on fruit and vegetables and tourist services and then an abandonment of the idea, immediate changes in real estate taxes without a complete policy in this area, extension of an exemption from taxes for foreign investors in the stock market and then the cancellation of this. There are many additional examples.

Who is responsible for the taxation policy in Israel? It would seem that the answer is quite clear: the Minister of Finance and the Finance Ministry. The current prime minister appointed himself "super minister" in charge of the economy, so he is also responsible. The Director-General of the Ministry is surely also responsible for taxation policy as well as the head of the Taxation Authority. As the person who presents the budget to the government and is charged with keeping the budget deficit under control, the Budget Director also sees himself as somewhat responsible. And then there is also the chief of the Government Income Authority who is in charge of taxation policy within the Ministry of Finance.

The evidence, however, suggests that the multiplicity of cooks is spoiling the broth. As the examples above indicate, Israel's taxation policy is inconsistent, and it is often difficult to discern how it serves the government's economic policy objectives.

* Yarom Ariav, Taub Center Economics Policy Program Fellow; past Director-General, Ministry of Finance.

The importance of a successful taxation policy should need little explanation. The taxation system has a great impact at the macro level as well as at other levels. The system influences the size of the deficit and through it, the debt-GDP ratio. The taxation system impacts the country's economic growth and the distribution of income within it. The functioning of the tax system as an automatic stabilizer – i.e. one that minimizes economic fluctuations through an automatic effect on total tax revenues – impacts the ability of the economy to withstand economic shocks and instability within the security realm. The tax system and the incentives inherent in it affects long-term savings, the functioning of financial markets, the attractiveness of foreign investment, work incentives and labor force participation, population dispersion, real investments in the economy, development of natural resources, market structure and the degree of concentration within it – and, in essence, every citizen and economic unit. The tax system plays a special role with regard to equality in the market place.

So why is it that alongside those responsible for government expenditure in the Finance Ministry's Budget Bureau – a powerful agency filled with dozens of economists, whose voice is loud and clear and whose hand is everywhere – stands an income authority in charge of the income side of the budget, i.e. tax policy, which has little manpower and little influence determining policy? One explanation is related to the restructuring of the Ministry of Finance that took place less than a decade ago. In the past, the Income Tax Division and the VAT and Import-Export Tax Departments were separate units. Above them was the State Income Authority. In this case there was a clear distinction between the executive branch that set taxation policy and the implementation arm that was responsible for tax collection (just like the Budget Bureau is responsible for the planning and budgeting and the Department of the Accountant General is responsible for the implementation of the budget). In this situation, the State Income Authority wielded considerable influence on overall taxation policy as well as on taxation at the different sectoral levels. In fact, the country's Income Authority had a significant role in reforms such as the opening of markets to competition, stock market taxation and other tax reforms.

This situation changed substantially at the beginning of the new millennium when the departments were combined (at least in theory) into one tax authority.

The objective was to increase efficiency and lead to savings, but insufficient thought was given to its impact on the functioning of the Ministry of Finance. This structural change did not achieve the savings intended and it caused considerable damage in that it greatly weakened the State Income Authority that remained. The Authority, which was greatly reduced in size, tried to continue having an important impact in the determination of tax policy, but in practice, a vacuum was created that others – primarily from the Tax Authority and the Budget Department – entered. It is quite problematic when the body responsible for collection, i.e. the Taxation Authority, is also put in charge of the determining tax policy since issues of ease of collection could dominate the setting of policy as opposed to more relevant issues of how the tax policy serves the economic aims of the government. Even the Budget Department with all of its professionalism and power should not deal with tax policy since it is natural that it views issues through the prism of its authority – budget expenditure.

A taxation policy that works to increase growth, to minimize distortions and to narrow income gaps in the market is crucial. The absence of a professional, strong and dominant body that is responsible solely for this causes strategic damage to the economy, damage that will worsen over the years. There is an immediate need to strengthen Israel's Income Authority so that it will be a professional body that is central in establishing consistent and comprehensive taxation policy.

Spotlight C: Israel's Shadow Economy

Dan Ben-David

The severe economic problems experienced by a number of European countries in conjunction with the recent global recession have illuminated problems that are shared with Israel – even though Israel has thus far weathered the recession much better than most countries. However, as Yashiv points out (Yashiv, 2011), there is a need to distinguish between the current bright situation and the much darker long-term picture that underlies it.

Large underground economies in Greece and Italy seriously limit the ability of these countries to garner urgently needed domestic resources for dealing with their predicaments – and do not provide much of an incentive for the citizens of other European Union partner countries to grant financial support drawn from the taxes that they pay. Israel, which also receives extraordinary financial assistance from abroad, should be aware of the parallels that may one day be drawn in this regard.

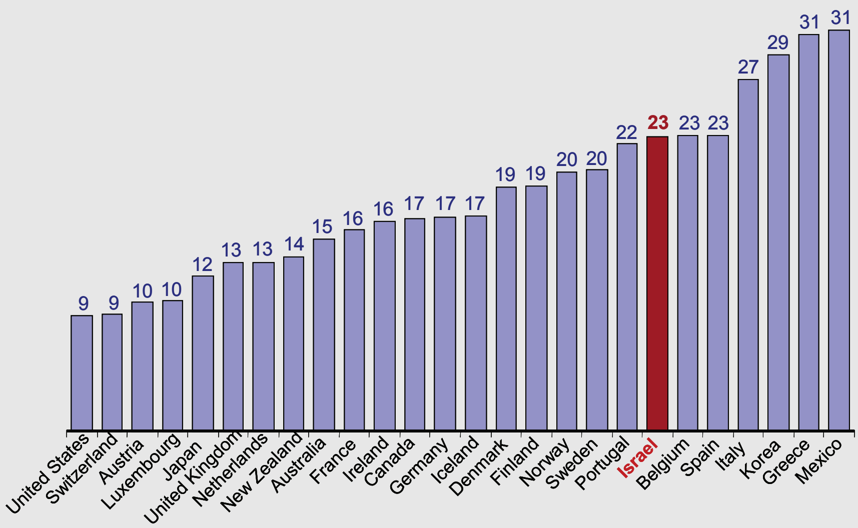
The extremely high rates of non-employment in Israel reflect not only problematic work habits by a large and growing segment of the population, but also what would appear to be – from an anecdotal perspective – quite extensive levels of tax evasion. The severity of non-compliance with the country's laws is very difficult to gauge, but its pervasiveness in some sectors of the population and business sectors is also difficult to ignore.

How large is Israel's shadow economy and how does it compare with other countries? A recent World Bank study by Schneider, Buehn and Montenegro (2010) provides a glimpse – albeit a very rough approximation – based on multiple indicators including currency demand. They rank 151 countries according to the size of their shadow economies. Figure 15 looks at a subset of these and shows how Israel compares to 25 OECD countries.

Figure 15

Shadow economy as share of GDP*

Israel and 25 OECD countries, in percent, 2007



* based on multiple indicators including currency demand.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Schneider, Buehn and Montenegro – World Bank 2010.

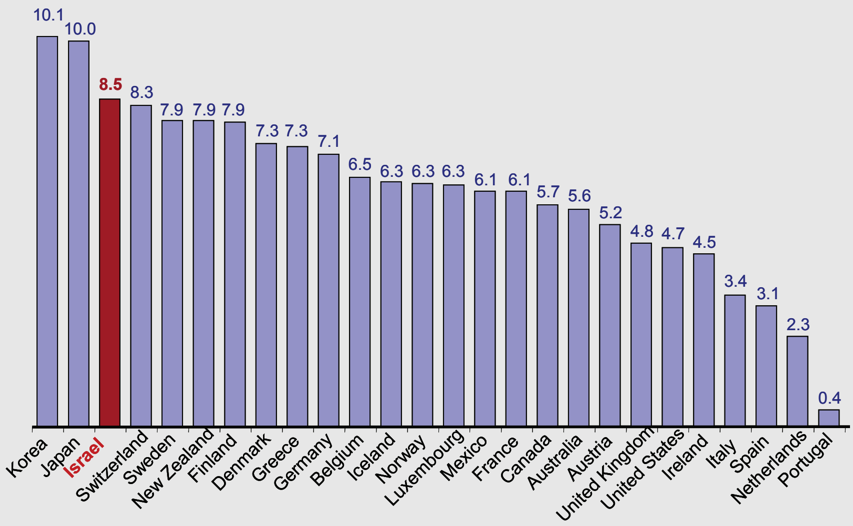
While the apparent problems of Greece and Italy eclipse Israel's as far as shadow economies are concerned, Israel, nonetheless, has some substantial economic activity that is hidden from the eye of the tax authorities. According to Schneider, Buehn and Montenegro, the size of Israel's shadow economy reached 23 percent of its GDP in 2007. This is considerably greater than Germany (16.7 percent), the United Kingdom (13.2 percent), Japan (12.1 percent), and the United States (9.0 percent).

The problem is not only in the size of the country's shadow economy, but also that its share of GDP is growing at a faster rate than in nearly all of the other countries (Figure 16). Since 1999, the shadow economy share of GDP has grown by six percent on average for the 25 OECD countries in the figure.[9] The growth of Israel's underground economy (8.5 percent) was faster than in 23 of the other countries, with only two countries showing even faster growth rates, Japan and Korea.

Figure 16

Changes in share of shadow economy out of GDP

Israel and 25 OECD countries, in percent, 1999-2007*



* based on multiple indicators including currency demand.

Source: Dan Ben-David, Taub Center and Tel-Aviv University.
Data: Schneider, Buehn and Montenegro – World Bank 2010.

9 Note that this refers to the percent change in the shadow economy share of GDP and not to a change in percentage points.

Even if one assumes that the shadow share of GDP in 2010 was similar and not greater to that of 2007, this still implies an enormous amount of economic activity that is taking place outside of the formal public eye – a sum of NIS 187 billion in 2010 alone. Such an extensive shadow economy skews the shouldering of the public burden in a substantial manner, leading to high tax burdens on some portions of the population while other segments of the population who work – while formally appearing not to do so – not only do not bear their share, they actually artificially inflate the burden further by receiving welfare assistance and subsidies since they appear to be much poorer than they actually are.

With underground activity at this scale, one has to wonder how cost-effective it would be to increase substantially the level of law enforcement in Israel to rein in this activity.

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