Revolution and redistribution in Iran: Changes in poverty and distribution 25 years later

Djavad Salehi-Isfahani*
Department of Economics
Virginia Tech
March 15, 2006

Abstract

Despite nearly three decades of revolutionary government rule in Iran, poverty, equity and redistribution remain the central issues of political debate in Iran. The conventional wisdom explains the electoral success of the populist candidate in the 2005 presidential election as a result of rising poverty and inequity. In this paper I present evidence on poverty and inequality based on household survey data for the period beginning just before the Islamic Revolution of 1979 and ending in 2004. The evidence shows that poverty, having substantially declined in recent years, is low by international standards and relative to before the Revolution. In contrast, inequality, though lower compared to the years before the Revolution, has been quite stable in recent years. I discuss the role of access to basic services such as electricity and water and show that the poor have gained substantially in access which is not well reflected in their consumption expenditures. Given the wide gap between what the facts say about poverty and inequality and what press reports and anecdotal evidence say about worsening poverty and inequality in Iran, I raise the question whether in a distributive society such as Iran’s, where individuals may equate the gains of others with access to the oil wealth rather than productivity, economic growth may be politically destabilizing even if inequality does not worsen.

1 Introduction

The surprising landslide victory of the candidate with a populist agenda, Mahmoud Ahmadinejad, in Iran’s 2005 presidential election has raised difficult questions about the nature of Iranian politics. Early explanations of the apparent shift toward populist and distributive politics have emphasized rising poverty and inequality, but the evidence is anecdotal. The phenomenal effectiveness of his winning slogan, “take the oil money to the people’s dinner table,” indicates the significance of distributional issues in voters’ minds. One writer concluded that Mr. Ahmadinejad’s election was

---

*Preliminary, not for quotation. Please send comments to salehi@vt.edu. I wish to thank Marenglen Marku for research assistance and for comments on an earlier version of this paper.
the result of “frustration with widening income gaps,” and that, “today poverty, not prosperity, again propels Iran toward extremist politics.”¹ The description of Iranian society as suffering from widespread poverty and widening gap between rich and poor has become conventional wisdom.² Nearly three decades have passed since the government which, in the words of its founder, Ayatollah Khomeini, belonged to the disinherited (mostazafin), has taken power in Iran. That calls to political action to achieve economic justice should still resonate so widely with the Iranian public must raise questions about the achievements of the Islamic Republic in its most serious claim to legitimacy. A second, closely related explanation for the turn in Iranian politics points to resentment arising from comparisons of the standard of living today with what prevailed before the Revolution. Nostalgia about the good old days among urban middle class Iranians, especially in Tehran, is legendary and often highly exaggerates income levels before the Revolution.³

Systematic studies of poverty and income distribution that cover the period from before the Revolution to present are necessary to make the type of welfare comparisons that underlie the current explanations of political change in Iran. Surprisingly, none exist. This paper’s contribution is to fill the gap in our understanding of the facts; it does not directly address the relationship between income distribution and political change in Iran. I examine survey data on household and individual expenditures to explain the trends in living standards and the extent of poverty and inequality for the period beginning with the years just before the Revolution until 2004⁴

The evidence contradicts the facts used to support both explanations mentioned above regarding the underlying causes of the shift toward populism in Iran. Poverty has fallen sharply since its peak in 1989 and the distributions of income and expenditures have not worsened. Per capita expenditures, which is a widely used indicator of economic welfare, fell sharply after the Revolution and again during the war with Iraq, but it has now surpassed its peak in 1975. Access of people at the lower end of the income distribution to public services, such as health, housing, electricity,

³One finds highly erroneous statements even in the pages of the most prestigious western newspapers: “in real terms, Iranians earn one-fourth of what they did earn [before the 1979 Revolution]” (emphasis added), “Economic Ills Fuel Iranian Dissent,” The Washington Post, July 8, 2003, A. 13, or “Today, real per capita income is a third of what it was before the Revolution.” Molavi (2004). In fact, per capita incomes are about the same if not higher than before the Revolution. See below.
⁴I use Georgian calendar years but all data refer to Iranian years extending from March 21 to March 20 the following year.
water, and natural gas, has improved significantly. In all these cases, the comparison between the lot of the poor before the Revolution and in recent years shows considerable improvement.

Although there exists a sizeable literature on poverty and inequality in Persian, there are only a few studies in English, and none that cover the last ten years. Behdad (1989) and Nowshirvani and Clawson (1994), provide careful analysis of income distribution until 1986, and Assadzadeh and Paul (2004) analyze changes in poverty during 1984-1993.5 No study exists to my knowledge of the extent of poverty for the period before the Revolution and none either on poverty or distribution for the period after 1993. However, in the ensuing years Iran has changed dramatically: its economy has grown to twice its size in 1993 and personal incomes have surpassed their pre-Revolution level. Iranian families have been transformed, especially in rural areas, through dramatic increases in child health and education, decline in fertility, and greater access to basic services and home appliances.

It is difficult to decide how much of the gains in poverty reduction and stability in distribution can be attributed to government policies directed at the poor and how much to economic growth. The Revolution itself created considerable social and economic mobility, but successive Islamic governments have implemented specific policies to redistribute and to assist the poor.6 These include initial redistribution of assets, mainly of companies and financial institutions away from private individuals and to the public sector and to foundations set up in the name of the poor (if not entirely for the poor), such as the Foundation of the Disinherited (Bonyad Mostazafan). Assistance to the poor has been through a vast system of price subsidies mainly directed at the poor, which have kept the price of basic food, medicine and fuel low, but which also benefit the rich. Direct support networks, the largest of which, the Komiteh Emdad, combines public and private support, have also been effective in poverty reduction (Esfahani 2005). But, perhaps the most dramatic policy, which did not even directly aim at poverty reduction, has been the combined rural health and family planning delivery program in rural areas. There has been no systematic evaluation of these programs on poverty reduction. An earlier study of income distribution by Behdad (1989) which found

5 Assadzadeh and Paul (2004) state their period of study as 1983-93 but their first data are from the survey undertaken during the Iranian year 1963, which corresponds to 1984/85.
6 The Constitution of the Islamic Republic of Iran is quite explicit in committing the government to provide for the poor. Article 29 considers it a person’s right to have access to “social protection in retirement, unemployment, old age, disability, . . . , which the government is committed to provide.”
7 The redistributive policies were mostly implemented during the first two years of the Revolution, 1979-80. For surveys of distributive policies after the Revolution, see Behdad (1989) and Nowshirvani and Clawson (1994).
only mild evidence that the Revolution improved equality, covered only the war period and stopped before much of the policies that would later improve the lot of the poor, especially in health and family planning, could take effect. The study by Assadzadeh and Paul (2004), which also stops too early, in 1993, indicates only the beginning of the long period of decline in poverty which continues throughout the 1990s and up to present.

The plan of this paper is as follows. The next section discusses the trends in national output per head and in personal incomes and expenditures. This section establishes the fact that by all measures economic well being has, on average, been restored to its pre-Revolution level. Section 3 provides an international comparison of poverty and inequality, which shows that Iran’s position relative to its peers is quite favorable. Section 4 discusses the trend in poverty, and section 5 traces the same for inequality. Section 6 shows the extent of access to home appliances and basic services such as water and electricity, and section 7 discusses the implications of the findings in view of the importance of distributional issues in Iranian politics. I suggest that in distributive societies such as Iran, political stability during oil induced economic booms requires economic transparency which is lacking in most oil-based Middle Eastern countries.

2 The rise and fall of the standard of living in Iran

The 1979 Revolution broke a twenty-year long period of rising living standards, making the post-Revolution economic decline seem like an unprecedented disaster. During 1960-77, GDP per capita grew at 6.6 percent per year, allowing it to treble in just one generation. By the time the economic damage caused by the post-Revolution chaos, the 1980-88 war with Iraq, and the oil price collapse of 1986 had worked their way through the system, in 1988 GDP per capita was only one-half of its 1977 level. Although economic growth since the end of the war with Iraq had, by 2004, allowed incomes to recover their pre-Revolution peak, the memory of the harsh times continues to haunt the population.

Figures 1 and 2 depict the rise and fall of incomes during the 1955-2004 period. As these figures

---

8Figure 1 uses national income data from two sources, the Penn World Tables (Summers, Heston, and Aten 2002) and Central Bank of Iran (CBI). The former, which is constant US dollars, corrects for differences in the cost of living between Iran and the United States by using Purchasing Power Parity (PPP) exchange rates, while the latter is in constant 1997 rials. Private consumption is also reported by CBI and is in constant 1997 rials. (World Bank 2005)
show, economic decline came in at least two stages, marked by different but closely timed events. First came the disruptions following the 1979 Revolution itself. These began with worker strikes in 1978 and continued for several years afterwards with nationalizations of banks and large enterprises and the chaos created in worker-management relations (Bayat 1987, Behdad 1989, Amuzegar 1993). About 18 months later came the war with Iraq (1980-88), which wrecked the local economy in south-western Iran, caused major damage to productive infrastructure in other parts of the country, and disrupted oil production and exports. Finally, the oil price collapse of 1986 reduced the price of Iran’s main export to one third, effectively ending the oil price boom that had started a dozen years earlier in 1973. According to the Penn series in Figure 1, per capita GDP reached its peak of about $7000 in the mid 1970s, whereas CBI data indicates a peak of about (PPP) $7700 in 1976. By the end of the war in 1988, per capita GDP had fallen to about $3700, a level it had passed twenty years earlier in 1967. Economic growth since the end of the war had brought back by 2004 per capita GDP to about $6800 per year, which is the level it had reached in the mid 1970s.

From the viewpoint of the national economy, the extent of economic decline is breathtaking, especially considering the rapid pace of growth that it reversed (Figure 1). To find reversals of fortune of this magnitude in such a short period, one would have to go back to the destruction of European economies as a result of the Second World War. However, from the viewpoint of private consumption and household expenditure and income the rise and fall of living standards appears much less dramatic (see private consumption in Figure 1 and per capita household expenditures and income in Figure 2). Private consumption (according to national income data) grew at 4.5 percent between 1960-77, about 2 percentage points less than GDP per capita, and was down by only 23 percent in 1988 compared to its peak in 1977. Growth of per capita consumption during 1997-2004, at 4.6 percent per year, has actually been faster than during the long period of growth before the Revolution.

Perhaps the most remarkable observation to be made from Figure 2 is how insulated the rural areas, I have not produced the average for the country as a whole. A weighted average of the two series, with the urban share going from one-third to two-third during the period, would be a reasonable approximation and would place the aggregate series somewhere in between the two in Figure 2.
Figure 1: GDP per capita according to different sources of data, 1955-2004

Notes: GDPPC-Penn (GDP per capita, Penn World Tables Mark 6.1) is measured in international dollars (left axis), and GDPPC-CBI (Central Bank of Iran) is in thousand 1997 rials (right axis). GDPPC-Penn corrects for differences in purchasing power between Iran and the United States. PrivateCPC (private consumption per capita) is also from Iran's national accounts data (Central Bank of Iran) and is measured in thousand 1997 rials.
Sources: Summers, Heston, and Aten (2002), and Central Bank of Iran, Annual Report, Various years.

Figure 2: Average real daily per capita expenditures, 1974-2004 (2004 rials)

Note: Calculated from reported average household expenditures divided by average household size and converted to 2004 prices using the consumer price index for rural and urban areas.
Source: Statistical Center of Iran HEIS reports, various years.
economy has been to the wide fluctuations in the economy. While urban families have been on the roller coaster ride of boom and bust, the average rural family did not directly experience the great boom of the 1970s nor the big crash in the 1980s. Their loss in terms of stagnant incomes for an entire generation (1974-2000) is significant, however. Movement in rural consumption started to appear in the mid 1990s when per capita consumption first started to crawl up and then, between 1999-2004, it accelerated. During this period, which corresponds to the Third Development Plan, rural consumption grew at par with urban consumption, at 6.7 percent per year. Despite the parity in recent growth, the overall picture that emerges from Figure 2 is that the gap between rural and urban areas has widened in the last ten years. In fact, it appears that the gap tends to narrow during periods of economic decline, as in the mid 1980s, and widen with growth, as in the period since the end of the war. The ratio of rural to urban consumption reached its lowest value of 0.45 in 1975, a year of maximum prosperity, and its peak in 1989, one of the worst. The ratio has fluctuated round 0.5 in recent years. Since the rural-urban gap is one of the most important sources of inequality, reduction in overall inequality in the country would have to wait until the combined effect of improved health, lower fertility, and rising education in rural areas helps rural families to catch up.

A final observation regarding the changes in the average levels of income in Iran may help dispel the notion that, were it not for the facts of the Revolution and the war that followed it, Iran's economy would have continued to grow despite the falling price of oil in the 1980s. A comparison between Iran and Venezuela offers a useful perspective on the rise and fall of incomes in Iran. In 1975, Iran and Venezuela both had per capita incomes of about $7000 (in 2000 international dollars). By the mid 1980s, for different reasons, both countries had lost all the gains from the oil boom of the 1970s. Three decades later, by 2004, Iran had all but recovered from the losses it had suffered, while Venezuela’s income per head was still one-third below its peak in 1975.

To sum up, according to these data, GDP per capita has nearly recovered its pre-Revolution peak while personal consumption has actually exceeded it. These data show how wide off the mark are the comparisons between the standard of living before and after the Revolution, noted above, which claim income losses of one-third or one-fourth.

For this reason in this paper I discuss consumption expenditures for rural and urban households separately.
3 International comparison of poverty and inequality

Before asking how the dramatic economic swings of the last three decades have affected different income groups, it is worth finding out how they have left Iran in terms of poverty and inequality compared to other countries. Comparisons of poverty levels are more difficult than inequality because the former involve comparisons of living standards across countries while the latter is done with more objective yardsticks. Reported poverty rates (proportion living in poverty) for Iran vary greatly because different authors and institutions define different levels for the poverty line. For example, United Nations (2003, 6) reports that 20 percent of Iranians live under poverty in 2003. This is a fair statement except that it fails to note the poverty line it assumes. The level of poverty implies a poverty line of 8800 rials per day per person in 2003, or about $3.60 in international dollars, which is much higher than is commonly used for other countries. A sensible comparison requires using a common poverty line for all countries.

Such a measure is available in World Bank (2005), which reports poverty (and inequality) measures for a number of countries, including Iran, using the standards of $1 and $2 per day. Table 1 compares poverty and inequality in Iran with a number of countries of interest: Egypt and Turkey, the two other large countries in the Middle East besides Iran; Mexico and Venezuela, two oil exporting countries from Latin America; China, India and Pakistan, poorer but fast growing countries of Asia; and Malaysia, a predominantly Muslim country with a dynamic economy but, somewhat like Iran, using an official rhetoric critical of globalization. The data are for 1998-2001, the closest neighboring years for which comparable data were available.

In terms of poverty, Iran compares well with the countries in this table. The proportions of individuals under $2 per day is 7.2 percent in Iran, compared to 9.3 percent in Malaysia, the country with the next lowest poverty rate but one-third richer. Turkey, which has a similar income per head as Iran, also has a slightly higher poverty rate (Iran’s had dropped to even lower, to about 5 percent by 2000, as shown below). Egypt, a poorer nation but with a more equal distribution of income than Iran, has a poverty rate of about 44 percent. The fast growing countries of China and India have high poverty rates of 50 and 81 percent, and Pakistan’s is about 66 percent. Venezuela, whose oil exports are close to Iran’s but whose GDP per capita is one-third lower, has a poverty rate of
Table 1: International comparison of poverty and inequality

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP PC in 2003</th>
<th>Poverty rate % under $2</th>
<th>Gini index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>6608</td>
<td>7.2 (1998)</td>
<td>43.0 (1998)</td>
</tr>
<tr>
<td>Egypt</td>
<td>3731</td>
<td>43.9 (1999)</td>
<td>34.4 (2000)</td>
</tr>
<tr>
<td>Turkey</td>
<td>6398</td>
<td>10.32 (2000)</td>
<td>40.0 (2000)</td>
</tr>
<tr>
<td>China</td>
<td>4726</td>
<td>50.1 (1999)</td>
<td>44.7 (2001)</td>
</tr>
<tr>
<td>India</td>
<td>2732</td>
<td>80.6 (1999)</td>
<td>32.5 (2000)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1981</td>
<td>65.6 (1998)</td>
<td>33.0 (1999)</td>
</tr>
</tbody>
</table>

Note: GDP per capita is in constant 2000 international (PPP) dollars, and the poverty rate is the percentage of individuals living under $2 per day.

over 30 percent. In terms of inequality, as measured by the Gini index, Iran is about average for this group of countries but relatively low compared with those with similar incomes per capita. The Gini index for the poorer countries of Egypt, India, and Pakistan is lower (0.30-0.35), but Iran’s index (0.43) is lower than countries with similar income (0.49 and 0.54 for Malaysia and Mexico) except for Turkey (0.40). In short, following a tumultuous post-Revolution period, poverty and inequality in Iran seem to be low relative to a group of its international peers.

4 Poverty

4.1 Defining a poverty line for Iran

The literature on the meaning and measurement of poverty is extensive and contentious (Bhalla 2002), and the discussion of what it means to be poor goes beyond economics (Sen 1999). It is generally agreed, however, that economic definitions of poverty based on what individuals spend on their livelihood can serve as an important tool of poverty monitoring because they quantify poverty. Poverty thresholds based on surveys of individual income and expenditures therefore form the mainstay of poverty measurement. In this section I focus on such measures and use household expenditure data from Iran to specify poverty lines over time. In a separate section below I broaden the scope by considering the extent to which the poor have benefited from increased access to basic
services, such as electricity and health, which influences the quality of their life over and above what they spend on themselves.

A widely used poverty line is based on the level of food expenditure which allows a person to purchase a minimum level of calories per day (about 2200). This is the basic approach pioneered by Pajonyan (1994) for Iran, and others have emulated (Salehi-Isfahani 2003, and Tabibian 2000 among others). In this method the poverty line is measured by mean expenditure for a group of consumers whose food intake amounts to about 2200 calories per day (see Table 2). Another method begins with a nutritional table, calculates its cost at current market prices, and augments it by a certain proportion of non-food expenditures. Assadzadeh and Paul (2004) base their study on such a measure and use the ratio of non-food expenditures to total at the sample mean to derive their poverty line. All these studies use the Household Expenditure and Income Surveys collected every year by the Statistical Center of Iran.\footnote{Overestimation of poverty can occur in survey data because the poor often report poorly and their consumption levels are, as a result, too low. The rich are under counted, on the other hand, as many may not wish to reveal the extent of their riches. For the comparison over time to be accurate, it is sufficient that whatever biases exist are the same for all years.}

These surveys ask households about their expenditures in the last 30 days or the last 12 months, depending on the type of expenditures, but do not ask about individual consumption. The difference between expenditure and consumption can be large, especially for some rural households who buy their food in bulk at harvest time.\footnote{In 2001, about 24 percent of rural families bought more than 500 kilograms of grain in the month of interview. So, in that month the mere purchase of this amount of grain may place them above the poverty line, but if the bulk expenditure is distributed over six or twelve months they may be in fact poor. See Salehi-Isfahani (2003).}

Table 2 compares various estimates of poverty lines in rials per person per day (which can be easily converted to international dollars using the PPP exchange rate given on the last row of the table). In this table I have extended the estimates made for a specific year to other years using the consumer price index (CPI) for rural and urban areas. There is a fair amount of agreement among these estimates. In later years they generally place poverty above the $2 per day used in international comparisons.

### 4.2 Household vs. individual level poverty measures

Ideally, we want to know the extent and severity of individual poverty, such as the proportion of individuals below a certain level of per capita expenditures. Poverty rates based on the number
Table 2: Various poverty lines for selected years (per person per day, in current rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPO</td>
<td>75.8</td>
<td>210.4</td>
<td>535.7</td>
<td>1444.5</td>
<td>4327.4</td>
<td>3986.3</td>
</tr>
<tr>
<td>Assadzadeh &amp; Paul</td>
<td>95.6</td>
<td>265.2</td>
<td>675.5</td>
<td>1824.9</td>
<td>5456.8</td>
<td>5027.9</td>
</tr>
<tr>
<td>Tabibian</td>
<td>85.2</td>
<td>236.4</td>
<td>603.3</td>
<td>1627.5</td>
<td>4864.2</td>
<td>4487.8</td>
</tr>
<tr>
<td>Pajouyan</td>
<td>66.4</td>
<td>184.3</td>
<td>468.2</td>
<td>1396.4</td>
<td>4819.4</td>
<td>3484.8</td>
</tr>
<tr>
<td>Salehi-Isfahani</td>
<td>73.9</td>
<td>205.0</td>
<td>521.6</td>
<td>1406.0</td>
<td>4204.4</td>
<td>3883.4</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPO</td>
<td>42.4</td>
<td>122.3</td>
<td>311.1</td>
<td>837.8</td>
<td>2504.8</td>
<td>2314.6</td>
</tr>
<tr>
<td>Assadzadeh &amp; Paul</td>
<td>67.4</td>
<td>194.2</td>
<td>430.5</td>
<td>1160.4</td>
<td>3869.0</td>
<td>3549.1</td>
</tr>
<tr>
<td>Tabibian</td>
<td>47.6</td>
<td>137.5</td>
<td>304.8</td>
<td>823.4</td>
<td>2739.6</td>
<td>2520.4</td>
</tr>
<tr>
<td>Pajouyan</td>
<td>50.5</td>
<td>145.6</td>
<td>323.6</td>
<td>1049.7</td>
<td>2795.5</td>
<td>2674.7</td>
</tr>
<tr>
<td>Salehi-Isfahani</td>
<td>50.9</td>
<td>146.5</td>
<td>325.2</td>
<td>881.1</td>
<td>2929.7</td>
<td>2687.5</td>
</tr>
<tr>
<td>PPP exchange rate</td>
<td>32.4</td>
<td>89.9</td>
<td>157.1</td>
<td>481.5</td>
<td>1118.2</td>
<td>1285.9</td>
</tr>
</tbody>
</table>

Note: Estimates of poverty lines were extended to other years using the CPI’s for rural and urban areas. The PPP exchange rate for 1977 is not available the 1984 rate.

of households below a certain level of expenditure (or income) may overestimate or underestimate poverty at the level of the individual, depending on whether poorer households are larger or smaller than average. As Table 3 shows, households at the lower end of the expenditure distribution are actually smaller so household level rates tend to overestimate poverty. The relationship between household size and income has changed over time, making it difficult to extrapolate. Whereas the average household size declined steadily from 1984 to 2004, as the table shows, in the poorest deciles it rose between 1984-94 before declining.

Estimating poverty rates at the individual level is straightforward for the period 1984-2004 because we have access to the unit record data. For earlier years, for which we have to rely on published SCI reports, the calculations are a bit more complicated because the published data are for the most part available at the household level only, and for arbitrary expenditure or income groups. To estimate headcount ratios (individual level poverty rates) for the period before 1984 we utilize the distribution of household size by expenditure category to convert the frequency distribution of households by expenditure category into the distribution of individuals. Furthermore, because the poverty lines do not correspond to the defined expenditure thresholds, we have to estimate the poverty rate based on the distance from the nearest threshold.
4.3 Trend in poverty

Determining the trend in poverty is much less contentious than measuring it. In the case of Iran, all poverty measures reveal the same trend because the survey data indicate that the relative position of the cumulative distributions of expenditures for different years are characterized by stochastic dominance. Thus, any poverty line applied consistently to all the years would show the same trend.

To demonstrate that the trend in poverty is independent of which poverty line we choose to measure it, consider the entire distribution of per capita expenditures for the most recent years depicted in Figure 3. These distributions which belong to a period of economic growth exhibit stochastic dominance (that is, the distribution functions do not intersect). As a result, no matter where we place the vertical line which represents the poverty line, the poverty rate, measured by the vertical height of the distribution function (the proportion of individuals with expenditures below that level), declines over time.

I will use two poverty lines to track changes in poverty over the 1974-2004 period: the standard $2 per day rate converted to rials at the PPP exchange rate and the poverty line used in Assadzadeh and Paul (2004) (henceforth AP). These poverty lines represent the two extremes in Table 2. While the latter sets different poverty lines for rural and urban areas, the $2 per day does not. I report the results for the $2 rate because it has the advantage of international comparability, and is less of
Figure 3: Cumulative distribution of real per capita expenditures, 2000-04

![Cumulative distribution of real per capita expenditures, 2000-04](image)

Notes: Per capita expenditures are in logs of 2004 rials. Source: Author’s calculations using Household Expenditure and Income Surveys for 2000-04.

a drawback in this exercise because my intention in this section is to identify the trend rather than the level of poverty.

Figure 4 shows the head count ratio for the period 1977-1984. The top graph is the proportion of individuals below poverty and the lower graph the proportion of households. Both graphs depict similar but identical trends. Where differences arise it is because of the changing distribution of household size by income group. For the pre-1984 period, when unit record data are not available, I have relied on the published distribution of the number of households by expenditure group and used the average household size for each expenditure group to construct the distribution of individuals by expenditure group. There are no studies that report poverty rates before the Revolution, so these rates are reported here for the first time. The estimated rates for 1977 are quite high by recent standards. Rural poverty rates are particularly high, at 69 percent of households and 59 percent of individuals when measured using the $2 per day poverty line, and 43 percent for both using the AP poverty line. Notice that the $2 poverty line yields higher rates compared to AP line in the 1970s.

13As noted earlier, the household rates are directly taken from SCI publications. For example, in 1977, SCI reports...
but lower in later years. The reversal has to do with the way the PPP exchange rate (which drives changes in rial value of the $2 poverty line) changes relative to the Consumer Price Index (which drives changes in the AP line). There was no urban survey in 1978, but the rural survey indicates a decline in poverty which lasts at least until 1981. The two poverty lines converge for urban areas. Urban poverty rates are a little in excess of 30 percent measured both in terms of the proportion of households and individuals.

Poverty rates rose later in the 1980s, despite a wide ranging system of rationing that tried to shield the poor against the shortages. For rural poverty, by 1987, the last year of the war with Iraq, the AP-based rates reached as high as 55 percent and the two dollar rates about 48 percent. Urban poverty is measured very differently by the two poverty lines, the AP rates are near 50 percent while the two dollar rates are about 20 percent. After their peaks in the late 1980s and with the start of the post-war reconstruction, poverty rates fell sharply in the early 1990s. Significantly, this period also coincides with a sharp increase in the price of oil during the first Persian Gulf war of 1990-91. Poverty rates rises slightly during 1993-96, during the economic crisis precipitated by the external debt problem and the ensuing import compression (Pesaran 2000). Poverty has been on continuous decline since 1996, reaching very low levels according the two-dollar rates in 2004 of only 2 percent in urban and 10 percent in rural areas. The AP rates are higher, about 10.3 and 19.4 percent. Thus, in 2004, according to the higher poverty line (AP) 13.3 percent of the population, about 8.9 million individuals, are under poverty, while according to the $2 criterion, only 4.9 percent, about 3.3 million are poor.

Several aspects of the trend depicted in Figure 4 are very interesting, perhaps even controversial. As noted earlier, many Iranians and outside observers may find the much higher incidence of poverty during the golden pre-Revolution years unexpected. The comparison extends from a poverty rate in 1977 which is two to fifteen times its value in 1977 depending on whether we use the AP or the $2 poverty line. Since per capita income in 1977 and 2004 was about the same, the lower poverty rate must be due to the effect of an improved distribution of expenditures (see section 5 below). The substantial decline in poverty between 1977-2004 is a powerful reminder that the Revolution

64 percent of households spent under 15,000 rials per year, which is about $2 per day using the PPP rate of 46.5 rials per dollar and the reported average family of 5.43 for this expenditure group. The lower individual poverty rate of 59 percent for 1977 is because poorer households were smaller size.
Notes: The poverty lines are USD2.00 per day (converted to rials using the purchasing power parity exchange rates), and as reported in Assadzadeh and Paul (2004). Source: Author’s calculations using Household Expenditure and Income Surveys for 1984-2004.
has had a profound impact on the welfare of Iran’s poorest families.

The high level of poverty during the war years should be surprising to those who consider direct distribution as an effective means to fight poverty. During these years the government had instituted a wide-ranging system of rationing for basic goods, which had informally extended to most commodities from refrigerators to construction materials which were procured from centers located in mosques. Of course, one possible reason for the rising level of poverty in the mid-1980s may be that inflation suddenly increased (from 7 percent in 1985 (1364/65) to 24 percent in 1986) pushing up our measured poverty line, while expenditure by the poor who primarily purchased rationed goods remained low. Another reason is that because of the nation’s focus on the war effort, delivery of goods and services to the poor was still not a priority. The delivery of key basic services—roads, electrification, and health—to rural areas did not start in earnest until the war had ended.

The rapid decline of poverty during the 2000-04 period, when the economy grew by about 5 percent per year, especially in the rural sector, raises an important question: was this an example of how oil-induced economic growth benefits the poor, or rather an example of the benefits of specific policies such as agricultural price supports and infrastructure investments? We know that large scale investments in rural electrification, rural health, and education were made in the 1980s and 1990s which improved the quality of life for the poor significantly. Such improvements may have also raised the ability of families to increase their incomes and thereby raise themselves out of poverty. Agricultural support prices after the war helped to raise farm profitability in rural areas (Mojtahed and Esfahani 1989).

On the other hand, the role of oil-induced growth in reducing poverty is hard to deny. The link between government spending of oil revenues and rising incomes of the poor is straightforward. Real income of the poor increases as demand for unskilled labor increases, mainly for construction and service type jobs, and at the same time the supply of consumer goods through imports increase. Government subsidies for food, fuel, and medicine help prevent inflation from eroding the purchasing power of the poor. These subsidies are only partly reflected in my calculation of poverty because I use the Consumer Price Index (CPI) to deflate current expenditures, which is notorious for not accurately measuring inflation for all income groups. The price of the basket of goods consumed by rich and the poor differ vastly as do their price increases because of the subsidies. To measure changes
in poverty more accurately, one would need to build a CPI based on what the poor actually consume rather than the average consumption basket. As it is, my calculations probably under-estimate the decline in poverty.\footnote{This must seem counterintuitive to those who think of the CPI in Iran as underestimating true inflation (Amuzegar 2005).}

The importance of oil income is likely behind the moderate rise in poverty during the late 1990s. The critics of market oriented reforms during the Rafsanjani administration (often described by the borrowed but less accurate term structural adjustment), pointed to rising poverty and inequality during the early 1990s as evidence of the anti-poor nature of market economics. The evidence in Figure 4 is quite clear that poverty actually fell during 1989-95, but rose after market reforms were put on hold in 1995 on orders from Ayatollah Khamenei. The rise may not necessarily be evidence that market reforms were actually reducing poverty, for during 1996-98 the reverse of the 1990-93 boom was taking place. Oil revenues were down (oil prices in 1998 were only one third their level in 1991) and, more importantly, imports were cut to manage the balance of payments crisis created by poor macroeconomic management in the first Rafsanjani administration.

Since 1998 the economy has grown steadily, thanks to rising oil prices and the revival of market oriented reforms by President Khatami, much to the disappointment of some of his supporters on the Left, and poverty has declined. Surprisingly, as noted earlier, the critics of market oriented reforms continued to speak of rising poverty and inequality. It is difficult to imagine how with a vast system of subsidies backed up by rising prices of oil, the expansion of demand in recent years could have affected poverty otherwise, swelling the ranks of the poor. The phenomenon known as immiserizing growth (Bhagwati 1958), which is associated with deteriorating terms of trade and therefore may increase poverty as the economy grows, simply does not occur when growth is fueled with increase in world oil prices. If there is any transfer from the poor, it must be from the poor in oil importing countries to everyone in oil exporting countries. The insistence among Iranian observers on rising poverty despite the facts stems from the blind application of the unlikely poverty-enhancing growth scenario to oil-induced economic prosperity.\footnote{See, for example, several contributions to the edited volume Raisdana et al. (2000).}

If the poor were severely squeezed by the rising price of food they would have cut back on non-food expenditures, which is not what we find for the period under study. The share of non-food expenditures.
expenses increased on average over time (Figure 5). More importantly, this ratio increased even for the lowest expenditure group. For the lowest decile of per capita expenditures, the ratio of non-food expenditures was 40 percent in 1984, rising to 44 percent in 1994 and to 50 percent in 2004.

5 Inequality

In this section I present evidence on the distribution of expenditures. The discussion in this section is intended to throw light on two key results of the previous section, namely the difference between the pre- and post-Revolution years and the effect of recent economic growth on distribution. Changes in poverty rates are obviously related to changes in the underlying distribution of income. So, the first question is to what extent the decline in poverty in 2004 compared to 1977 is the result of greater equity across all income groups or just at the lowest decile? The second question is whether or not the continuous decline in poverty during the last ten years of economic growth lifted incomes for all income groups.

That economic growth induced by rising prices of exports should reduce poverty is hardly a
surprise. But a reduction in inequality is by no means guaranteed. An oil-induced growth, such as
the one Iran has experienced in recent years, tends to reduce poverty but may worsen the distribution
of income if the rich gain even more than the poor. Kuznets' famous generalization (Kuznets 1955)
suggests that during the early stages of economic growth inequality worsens before it improves.
Economic growth in oil exporting countries may have its own dynamics of inequality: it may cause
more inequality if the distribution of political power, which determines access to the oil rents, is
unequal to begin with. In Iran, the Revolution brought about a large shift in political power but
there is no evidence that its distribution changed as much. There have also been two presidential
elections which signalled smaller shifts of power, again with no clear indication of a change in its
distribution. Of course, the increased complexity of the economy and the rise of human capital as a
source of income would lead one to expect some shifts in inequality over time.

The comparison of pre and post Revolution inequality has to rely on inequality at the household
level because all published estimates of inequality for the years before 1984, when unit record data
are not available, report inequality of household expenditures and incomes. A comparison based
on expenditures per capita is preferable because it is not affected by changes in the distribution of
household size by income.16 This is particularly serious for the 1990s period because of the change
in household composition noted earlier as a result of the fifty percent decline in fertility which took
place between in the late 1980s and 1990s. This caveat may also apply to changes in inequality
during the 1970s, but for a different reason. Rapid rural-urban migration in the 1970s may have
resulted in smaller families at the lower end of the urban expenditure distribution, thereby making
the distribution of expenditures at the household level more unequal than at the individual level.

Figure 6 presents estimates of the Gini coefficient for inequality of household expenditures ob-
tained from published studies as well as my own calculations using unit record data for the post 1984
period. The largest shifts in the distribution of income in recent times appear to have taken place
before the Revolution, during a period of apparent social and political stability, leading Pesaran
and Gahvary (1978) to conclude that the oil boom of the 1970s had worsened the distribution of
income. Between and 1972 and 1977 the Gini index of inequality rose from 0.4 to 0.5 for urban

16 This difference seems particularly significant for rural areas: the estimated Gini coefficient for rural household
expenditure in 1984 reported by Behdad (1989) is significantly higher than what I have estimated from unit record
data for per capita expenditures.
Figure 6: The Gini index of inequality of household expenditures, 1971-04


households and from 0.37 to 0.44 for rural households. We do not know how much of this rise in inequality, if any, is simply the result of using household level expenditures, and that individual level inequality may have remained more stable. The answer to this question would have to wait until more detailed data for earlier years becomes available. The Gini index declined immediately after the Revolution, to about 0.4 for both rural and urban sectors, as others have noted before (Behdad 1989, Nowshirvani and Clawson 1994), but rose slightly later in the 1980s, consistent with the rise in poverty in those years. According to household expenditures the period since the end of the war with Iraq has been one of general stability in inequality. Rural inequality rose briefly during the early reconstruction period while urban inequality has been, if anything, on a slight course of decline. Urban inequality was higher that rural before the Revolution but has been lower for the last twenty years. Greater equality defines an important aspect of Iranian urban life compared to the period before the Revolution. The more recent oil-induced boom of 1999-2004 seems to have brought greater equality, presenting a contrast with the oil boom of the 1970s.

A similar picture of household-level inequality emerges using a related but more intuitive measure of inequality, the ratio of the share of the top to the bottom 10 percent of the households, though this measure is not available to push the comparison reliably to the early 1970s (Figure 7). The decile
Figure 7: The share of the top richest per capita expenditure decile relative to the poorest has remained constant, 1984-04

![Relative share of highest to lowest decile of household expenditures](image)


share ratio for urban households fell from over 30 to about 24 immediately after the Revolution, rose some in the 1980s and then declined continuously to below 15 by 2004. The share ratio for rural households exhibits more variation compared to urban, fluctuating widely between 18 and 32 during 1977-1992, before declining to about 18 again in 2004. The rise of the ratio for rural households in the early reconstruction years, created the largest contrast in inequality between the rural and urban areas in 1992. The rise in rural inequality during the 1990-92, which is evident in both Figures 6 and 7, is the only piece of evidence that is consistent with the claims made by the critics of market reforms in Iran regarding their adverse consequences for inequality. Their claims regarding increase in poverty and urban inequality do not find any support in this study.

Looking at per capita expenditures for the 1984-04 period (Figure 8), the sense of stability of the expenditures distribution is strengthened. This is consistent with the observation made earlier that in the last fifteen years poorer families have become smaller at a faster rate than richer families, resulting in lower inequality between individuals compared to among household. The decile ratios for inequality of per capita expenditures also show more stability compared to household level expenditures (Figure 9). Furthermore, rural inequality is below urban inequality in the last ten years.
Figure 8: The Gini index of inequality of per capita expenditures

Source: Author’s calculations using HEIS data files, various years.

Figure 9: The share of the top richest per capita expenditure decile relative to the poorest has remained constant, 1984-04

Source: Author’s calculations using HEIS data files, various years.
The evidence in this section shows that, in contrast to poverty, in terms of reduction in inequality very little has been achieved in thirty years of revolutionary and redistributive policies. The Gini index in 2004 is about the same as it was in 1971-72. Apparently, overall inequality in Iran has not been only resilient to policy changes but also to the Revolution itself. A possible lesson from this observation is that, compared to poverty, inequality is more structural and cannot be easily changed, even by a social revolution. There is no doubt that the Revolution displaced many people from their place on the economic ladder, often quite drastically, but perhaps because the economic ladder on which individuals must in the end find their place has remained the same, the distribution is the same even though different people occupy now the higher steps. Iran’s impressive success in poverty reduction has significance from the point of view of economic development. By enabling more families to live above the poverty line, and by providing health and education services at low cost, the children from poorer families will be able to invest more in their education, thereby contributing to improvements in equality a generation later. The country’s relative success in maintaining inequality and even reducing it by some measures, may have the opposite implication from a growth viewpoint. To the extent that equality is maintained by preserving a rigid labor market and preventing those who move to more productive jobs to earn higher returns, stable inequality may in fact be anti-growth.

6 Access to services and home appliances

Improvements in living standards are only partially measured by household expenditures. Access to basic services such as electricity, safe piped water, and natural gas affect the quality of life in ways that are not captured by expenditures. Use of these services are not well reflected in household expenditures because they are heavily subsidized and therefore account for a small share of a household’s budget. Ownership of home appliances, most of which presuppose availability of electricity, provide further evidence of the quality of life.

Table 4, which is based on the same household surveys used in previous sections, shows the dramatic increase in access to basic services and availability of household services. The most important implication of these data are the narrowing of the rural-urban gap in access and therefore welfare,
which puts the near constant rural-urban gap in perspective. Rural electrification, increased access by rural households from 16.2 percent in 1977 to 98.3 percent in 2004. This change is responsible for many other improvements recorded in the table. Ownership of refrigerators in rural areas increased from 7.6 percent to 92.4 percent during the same period. Among urban households, nearly all of whom had access to eccentricity by 1977, only 36.5 percent owned refrigerators; by 2004 it was 98.5 percent. Ownership of televisions increased in both urban and rural areas, from 22.6 percent to 97.5 percent in urban and 3.2 percent to 89.1 percent in rural areas. Interestingly, TV ownership in urban areas, where access to electricity already existed, jumped from 22.6 percent to 79 percent in just seven years, perhaps as watching TV received the stamp of approval from religious leaders. Nearly half of rural homes have a fixed telephone line, which were non-exitent before the Revolution.

Access to safe piped water for rural household increased from 11.7 percent to 89 percent, which is impressive in view of the fact that they live in over 60,000 villages some of which are quite remote. Delivery of cheap piped natural gas for residential homes, which is an entirely post-Revolution project is now delivered to 80.1 percent of urban homes. The geographic dispersion of rural households makes it very costly to extent the same services to rural households, of whom only 14.1 percent has access to piped natural gas. Despite rapidly increasing population, in the last two decades average living area per person increased for both rural and urban families.

Have basic services and home appliance ownership improved for a wide spectrum of households or just on average? The answer to this question is possible for the period after 1984 for which unit record data are available. Figure 10 (and its underlying data in Table 5) describe these changes for households by expenditure quintile. What we find is that ownership of household appliances and access to basic services for poorer households has been at least as significant as those in higher expenditure quintiles. In urban areas basic services, except for natural gas, are provided with near equal access for rich and poor households. Nearly two-third of households in all expenditure quintiles own their homes. In 2004, the poorest quintile of households had ownership rate of 63 percent for telephone, 93.4 percent for TV, 95.7 percent for refrigerators, and 33.4 percent for washing machines. Nearly all had access to electricity and piped water, and 62.8 percent were hooked up to the natural gas network.

In rural areas, too, except for natural gas, there is a high degree of basic service delivery to
Table 4: Home ownership, household appliances, and access to services, 1977-2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Home owner</th>
<th>Living area</th>
<th>TV</th>
<th>Car</th>
<th>Phone</th>
<th>Washing machine</th>
<th>Refrigerator</th>
<th>Gas Stove</th>
<th>Electricity</th>
<th>Water</th>
<th>Natural Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>–</td>
<td>–</td>
<td>22.6</td>
<td>5.9</td>
<td>–</td>
<td>2.4</td>
<td>36.5</td>
<td>40.1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>1984</td>
<td>71.3</td>
<td>20.1</td>
<td>79.0</td>
<td>17.2</td>
<td>21.3</td>
<td>32.3</td>
<td>90.7</td>
<td>84.5</td>
<td>99.5</td>
<td>96.2</td>
<td>8.5</td>
</tr>
<tr>
<td>1989</td>
<td>73.6</td>
<td>17.9</td>
<td>83.9</td>
<td>17.2</td>
<td>27.4</td>
<td>38.4</td>
<td>92.4</td>
<td>88.7</td>
<td>99.6</td>
<td>96.0</td>
<td>16.7</td>
</tr>
<tr>
<td>1994</td>
<td>74.2</td>
<td>25.0</td>
<td>93.5</td>
<td>17.1</td>
<td>42.4</td>
<td>48.4</td>
<td>95.1</td>
<td>93.0</td>
<td>99.7</td>
<td>97.9</td>
<td>42.0</td>
</tr>
<tr>
<td>1999</td>
<td>74.2</td>
<td>26.4</td>
<td>95.3</td>
<td>17.4</td>
<td>53.7</td>
<td>52.4</td>
<td>97.0</td>
<td>95.6</td>
<td>98.9</td>
<td>99.9</td>
<td>60.0</td>
</tr>
<tr>
<td>2004</td>
<td>68.3</td>
<td>28.3</td>
<td>97.5</td>
<td>25.8</td>
<td>81.2</td>
<td>64.3</td>
<td>98.5</td>
<td>97.9</td>
<td>100.0</td>
<td>99.1</td>
<td>80.1</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>–</td>
<td>–</td>
<td>3.2</td>
<td>1.4</td>
<td>–</td>
<td>0.4</td>
<td>–</td>
<td>7.6</td>
<td>–</td>
<td>16.2</td>
<td>11.7</td>
</tr>
<tr>
<td>1984</td>
<td>89.4</td>
<td>25.6</td>
<td>2.8</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>35.5</td>
<td>45.5</td>
<td>57.1</td>
<td>43.9</td>
<td>0.2</td>
</tr>
<tr>
<td>1989</td>
<td>89.7</td>
<td>42.8</td>
<td>3.6</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>51.7</td>
<td>58.8</td>
<td>71.2</td>
<td>56.9</td>
<td>0.9</td>
</tr>
<tr>
<td>1994</td>
<td>87.6</td>
<td>16.3</td>
<td>68.1</td>
<td>4.2</td>
<td>6.0</td>
<td>12.3</td>
<td>69.0</td>
<td>72.6</td>
<td>83.6</td>
<td>72.2</td>
<td>2.3</td>
</tr>
<tr>
<td>1999</td>
<td>86.8</td>
<td>18.2</td>
<td>77.9</td>
<td>5.1</td>
<td>16.0</td>
<td>15.7</td>
<td>81.8</td>
<td>80.0</td>
<td>82.4</td>
<td>94.5</td>
<td>2.9</td>
</tr>
<tr>
<td>2004</td>
<td>86.0</td>
<td>21.3</td>
<td>89.1</td>
<td>9.3</td>
<td>49.4</td>
<td>23.4</td>
<td>92.4</td>
<td>89.5</td>
<td>98.3</td>
<td>89.0</td>
<td>14.1</td>
</tr>
</tbody>
</table>

Note: Homeowner is percent who own their home; living area is square meters per person; all other numbers are percents.
Source: Author’s calculations using HEIS, various years.

poorer homes. In 2004, 95 percent of the poorest quintile of households had access to electricity, 79.4 percent to water; only 7.7 percent received natural gas. In ownership of basic appliances, poorer households naturally lag behind, as they have less income to work with, but nevertheless made significant gains. TV ownership among the lowest quintile increased from 7 percent in 1984 to 76.7 percent in 2004, refrigerator from 12.7 percent to 80.4 percent, and gas stove from 21 percent to 75.8 percent.

In sum, both in terms of access to basic services and ownership of major home appliances, the poor have made significant gains in the last two decades. The gains in access to basic services, where the role of public sector has been critical, have been more impressive than in ownership of appliances, which depend in large part on households’ own resources.

7 Concluding remarks

This paper describes the extent of, and trends in, poverty and inequality in Iran, covering a thirty-year period extending from before the Islamic Revolution in 1979 to 2004. Using published evidence from the 1970s and micro data for 1984-2004, I compare economic welfare on average and for the poor
Figure 10: Ownership of appliances and access to services by expenditure quintile, 1984-2004

Note:
Source: Author's calculations using HEIS, various years.
<table>
<thead>
<tr>
<th>Quintile</th>
<th>Home owner</th>
<th>Living area</th>
<th>TV</th>
<th>Car</th>
<th>Phone</th>
<th>Washing machine</th>
<th>Refrigerator</th>
<th>Gas stove</th>
<th>Electricity</th>
<th>Water</th>
<th>Natural gas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1984</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>69.8</td>
<td>11.9</td>
<td>60.0</td>
<td>2.4</td>
<td>5.7</td>
<td>10.3</td>
<td>77.2</td>
<td>65.6</td>
<td>98.5</td>
<td>92.3</td>
<td>3.4</td>
</tr>
<tr>
<td>2</td>
<td>73.3</td>
<td>14.0</td>
<td>74.4</td>
<td>5.7</td>
<td>11.1</td>
<td>20.3</td>
<td>89.7</td>
<td>81.5</td>
<td>99.6</td>
<td>95.2</td>
<td>4.9</td>
</tr>
<tr>
<td>3</td>
<td>73.9</td>
<td>17.5</td>
<td>82.3</td>
<td>13.4</td>
<td>16.6</td>
<td>28.8</td>
<td>92.4</td>
<td>86.9</td>
<td>99.7</td>
<td>97.0</td>
<td>6.7</td>
</tr>
<tr>
<td>4</td>
<td>71.2</td>
<td>20.6</td>
<td>85.4</td>
<td>19.6</td>
<td>24.6</td>
<td>40.0</td>
<td>94.7</td>
<td>90.5</td>
<td>99.8</td>
<td>97.2</td>
<td>8.3</td>
</tr>
<tr>
<td>5</td>
<td>68.9</td>
<td>32.6</td>
<td>87.9</td>
<td>37.9</td>
<td>41.7</td>
<td>53.7</td>
<td>96.0</td>
<td>93.4</td>
<td>99.9</td>
<td>98.2</td>
<td>16.8</td>
</tr>
<tr>
<td><strong>1994</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>73.6</td>
<td>13.3</td>
<td>86.1</td>
<td>3.3</td>
<td>16.6</td>
<td>21.6</td>
<td>88.3</td>
<td>98.9</td>
<td>83.4</td>
<td>94.4</td>
<td>27.6</td>
</tr>
<tr>
<td>2</td>
<td>73.8</td>
<td>18.1</td>
<td>93.4</td>
<td>6.9</td>
<td>31.8</td>
<td>35.5</td>
<td>95.5</td>
<td>99.7</td>
<td>92.4</td>
<td>98.0</td>
<td>35.7</td>
</tr>
<tr>
<td>3</td>
<td>75.4</td>
<td>22.0</td>
<td>94.8</td>
<td>14.2</td>
<td>39.7</td>
<td>48.3</td>
<td>96.3</td>
<td>99.9</td>
<td>94.5</td>
<td>98.8</td>
<td>41.3</td>
</tr>
<tr>
<td>4</td>
<td>73.7</td>
<td>27.7</td>
<td>96.1</td>
<td>22.1</td>
<td>54.5</td>
<td>61.8</td>
<td>97.2</td>
<td>99.9</td>
<td>96.7</td>
<td>99.0</td>
<td>48.2</td>
</tr>
<tr>
<td>5</td>
<td>74.4</td>
<td>44.0</td>
<td>97.1</td>
<td>39.5</td>
<td>69.9</td>
<td>75.6</td>
<td>98.6</td>
<td>99.9</td>
<td>98.0</td>
<td>99.6</td>
<td>57.5</td>
</tr>
<tr>
<td><strong>2004</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>65.7</td>
<td>16.8</td>
<td>93.4</td>
<td>5.7</td>
<td>63.0</td>
<td>33.4</td>
<td>95.7</td>
<td>93.7</td>
<td>100.0</td>
<td>97.1</td>
<td>62.8</td>
</tr>
<tr>
<td>2</td>
<td>67.5</td>
<td>21.9</td>
<td>98.0</td>
<td>11.4</td>
<td>79.1</td>
<td>53.6</td>
<td>99.0</td>
<td>98.1</td>
<td>100.0</td>
<td>99.1</td>
<td>76.2</td>
</tr>
<tr>
<td>3</td>
<td>67.2</td>
<td>25.9</td>
<td>97.3</td>
<td>18.9</td>
<td>81.7</td>
<td>64.2</td>
<td>98.8</td>
<td>98.0</td>
<td>100.0</td>
<td>99.5</td>
<td>82.4</td>
</tr>
<tr>
<td>4</td>
<td>70.6</td>
<td>30.6</td>
<td>98.8</td>
<td>31.7</td>
<td>86.7</td>
<td>75.4</td>
<td>99.1</td>
<td>99.2</td>
<td>100.0</td>
<td>99.5</td>
<td>85.8</td>
</tr>
<tr>
<td>5</td>
<td>69.9</td>
<td>41.9</td>
<td>98.9</td>
<td>53.0</td>
<td>91.5</td>
<td>86.2</td>
<td>99.4</td>
<td>99.6</td>
<td>100.0</td>
<td>99.8</td>
<td>89.2</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1984</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>88.3</td>
<td>.</td>
<td>7.1</td>
<td>0.2</td>
<td></td>
<td>12.7</td>
<td>21.0</td>
<td>37.0</td>
<td>31.0</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>91.2</td>
<td>.</td>
<td>13.0</td>
<td>0.5</td>
<td></td>
<td>24.5</td>
<td>36.5</td>
<td>47.8</td>
<td>38.3</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>90.6</td>
<td>.</td>
<td>23.5</td>
<td>1.1</td>
<td>.</td>
<td>35.1</td>
<td>44.9</td>
<td>58.8</td>
<td>42.6</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>90.3</td>
<td>.</td>
<td>32.2</td>
<td>2.0</td>
<td>.</td>
<td>43.3</td>
<td>54.2</td>
<td>64.8</td>
<td>47.1</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>86.8</td>
<td>.</td>
<td>48.2</td>
<td>10.0</td>
<td>.</td>
<td>59.5</td>
<td>68.5</td>
<td>75.2</td>
<td>59.2</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td><strong>1994</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>87.6</td>
<td>12.0</td>
<td>49.2</td>
<td>0.8</td>
<td>0.8</td>
<td>2.6</td>
<td>49.0</td>
<td>74.6</td>
<td>54.5</td>
<td>58.5</td>
<td>0.9</td>
</tr>
<tr>
<td>2</td>
<td>89.4</td>
<td>13.3</td>
<td>64.8</td>
<td>1.6</td>
<td>3.6</td>
<td>6.0</td>
<td>63.9</td>
<td>82.1</td>
<td>69.5</td>
<td>69.5</td>
<td>1.6</td>
</tr>
<tr>
<td>3</td>
<td>88.0</td>
<td>15.5</td>
<td>70.6</td>
<td>3.3</td>
<td>5.5</td>
<td>10.1</td>
<td>72.1</td>
<td>84.0</td>
<td>74.9</td>
<td>72.7</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>87.0</td>
<td>17.6</td>
<td>76.6</td>
<td>4.0</td>
<td>8.2</td>
<td>16.8</td>
<td>78.0</td>
<td>88.0</td>
<td>78.9</td>
<td>77.4</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>86.2</td>
<td>22.8</td>
<td>78.1</td>
<td>11.0</td>
<td>11.6</td>
<td>25.3</td>
<td>80.7</td>
<td>88.9</td>
<td>84.2</td>
<td>81.9</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>2004</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>84.7</td>
<td>14.0</td>
<td>76.7</td>
<td>1.7</td>
<td>26.0</td>
<td>6.9</td>
<td>80.4</td>
<td>75.8</td>
<td>95.1</td>
<td>79.4</td>
<td>7.7</td>
</tr>
<tr>
<td>2</td>
<td>88.4</td>
<td>17.6</td>
<td>88.2</td>
<td>3.5</td>
<td>40.4</td>
<td>14.3</td>
<td>92.6</td>
<td>88.7</td>
<td>98.3</td>
<td>88.1</td>
<td>11.0</td>
</tr>
<tr>
<td>3</td>
<td>86.0</td>
<td>20.2</td>
<td>90.9</td>
<td>5.2</td>
<td>51.0</td>
<td>21.5</td>
<td>94.6</td>
<td>92.0</td>
<td>99.0</td>
<td>89.4</td>
<td>13.3</td>
</tr>
<tr>
<td>4</td>
<td>86.2</td>
<td>23.5</td>
<td>93.5</td>
<td>9.7</td>
<td>59.3</td>
<td>31.1</td>
<td>96.5</td>
<td>94.3</td>
<td>99.3</td>
<td>92.8</td>
<td>16.4</td>
</tr>
<tr>
<td>5</td>
<td>84.6</td>
<td>30.8</td>
<td>95.9</td>
<td>25.2</td>
<td>69.3</td>
<td>42.2</td>
<td>97.5</td>
<td>96.6</td>
<td>99.6</td>
<td>94.9</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Note: Homeowner is percent who own their home; living area is square meters per person; all others are percents.
Source: Author's calculations using HEIS, various years.
before and after the Revolution. I show that, despite large economic losses in the first decade of the Revolution, economic growth in the last ten years has restored average incomes to its pre-Revolution level and, more importantly, has resulted in substantial reduction in poverty. Much of the recovery in incomes and the reduction in poverty has happened during the recent economic boom induced by the rising price of oil. I further show that the poor have gained significantly from publicly provided basic services, such as electricity and safe drinking water. Greater access to electricity has increased ownership of home appliances, such as refrigerators and gas stoves, raising the quality of life for the poor. Greater access to safe drinking water and health services have brought substantial gains in lowe infant mortality and lower fertility. What appears as a story of economic stagnation when viewed as a comparison of economic indicators before and after the Revolution (1977 and 2004), is in fact a story of significant improvement in the quality of life of the average household and of the poor when access to basic services and ownership of consumer durables are also considered. The improvements documented in this paper corroborate what we already know from other indicators, namely lower infant mortality, lower fertility and higher child education that have occurred across geographic and income groups (Salehi-Isfahani 2005). Unlike the period of rapid growth in the 1970s, at least so far rising living standards have not come at the expense of rising inequality. There is no evidence of that the distribution of household (or per capita) expenditures has become more unequal over time. The poor have managed to match the gains made by the rich.

These gains are to a large extent the result of individual decisions by poor people to invest more in their children’s health and education and opt for smaller families. These decisions make little sense if parents are fundamentally pessimistic about their own and the future of their children. The improvements in the daily life of the poor documented here no doubt plays a role in their underlying optimism. Equally, the improvements themselves are in part the result of public investments and distributive policies. So, why is the public in general and the poor in particular so unhappy with their lot and with their government’s policies?

One answer is that they are not. Perhaps the positive picture that emerges from the analysis of survey data in this paper is what people feel and that published reports that blame rising poverty and inequality for the shift in Iranian politics toward conservatism and populism simply have it wrong or that they talk to the wrong people who resent the status quo for different reasons. There
is after all no shortage of reasons: social restrictions, high youth unemployment, and a quarter century of lost economic growth, are the most important that come to mind.

But anyone familiar with Iranian society would know that reports of rising poverty and inequality reflect accurately the feelings of many in Iran, especially the urban middle class, who seem to believe that they live in desperate times. It is for good reason that economic justice has occupied a prominent place in the public debate in Iran. If what people express about lost ground relative to thirty years ago or relative to others in their own generation is not factually correct, why is it so widespread?

An important reason for dissatisfaction that Iranians express may not be poor economic outcomes. It may be frustrations inherent to economic growth in a distributive economy and the role played by oil income. There are two important clues that suggest this may be the case. Most Iranians who express dissatisfaction with their economic conditions have exaggerated estimates of the size of oil income, and are very suspicious about how it is distributed. Corruption is the reason that most people and the winners of the last presidential election agree on for why oil money has not found its way to people’s dinner table, to paraphrase Ahmadinejad’s effective slogan.\(^\text{17}\)

Lack of transparency in the economy in general and about how the oil rent is distributed in particular, fuels these sentiments. The fact that there is no information about the distribution of wealth is distributed has led to wild speculation about accumulation of wealth by Iranians inside and outside Iran.\(^\text{18}\)

For the last thirty years the large oil rents have blurred the connection between personal productivity and income for most Iranians. Because rewards seem detached from productivity, be it real or imagined, individuals lack a basis on which to build their aspirations and expectations. The faster the rise in average incomes, the larger they infer is the pie that is being divided, and greater the possibility that one is not sharing equally in the bounty. Poverty reduction seems less impressive if the poor’s gains seem small compared to others. Under these circumstances, economic growth, even when it lifts all incomes evenly, may create social envy and resentment. The fact that significant political shifts in Iran, first in late 1970s and again in 2005, have taken place during economic booms suggests that this hypothesis is worth considering.

\(^{17}\)To this charge an outgoing Khatami minister replied, “on the people’s dinner table there is nothing but oil money!” (Shargh Newspaper, July 27, 2005).

\(^{18}\)See reports of $200 billion invested by Iranian in Dubai, “Young Iranians Follow Dreams to Dubai” \textit{New York Times} December 4, 2005.
References


Ghamari, B. (2005). What’s the matter with Iran? *Counter Punch* (July 5).


Statistical Center of Iran (2005). *Tahavolat Eghtesadi, Etemai keshtar as negah amar (Social and Economic Development of the country from the viewpoint of statistics)*. Tehran, Iran: Statistical Center of Iran.


