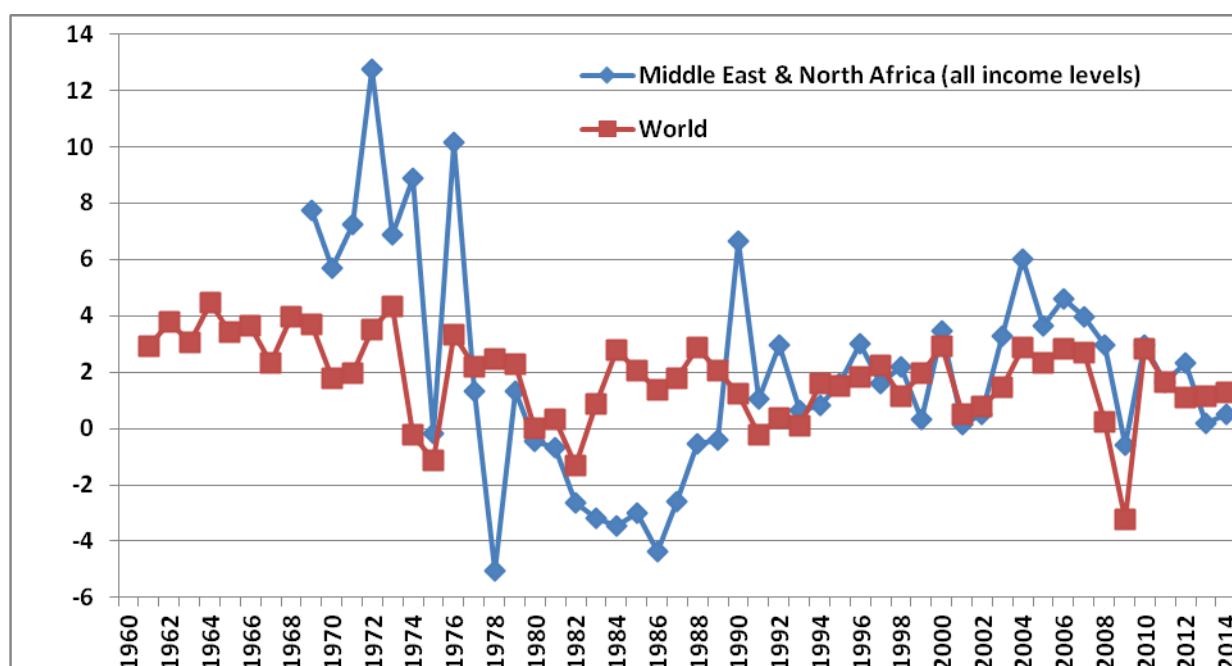


THE NEXT ECONOMIC MIRACLE IN THE MIDDLE EAST?

Vladimir Popov¹

In recent 5 years, after the Arab Spring events of 2010 and beyond, civil wars and disarray in Egypt, Iraq, Libya, Syria and Yemen undermined economic growth of MENA (Middle East and North Africa) countries. However, for over half a century before that MENA was a relatively successful region in terms of growth – its per capita GDP growth rates in 1960-2010 were generally higher than that of the world with the exception of the 1980s (Iran-Iraq war and 1986 collapse of oil prices) – fig. 1.

Fig. 1. Growth rates of per capita GDP in MENA countries as compared to the whole world in 1961-2014, % a year

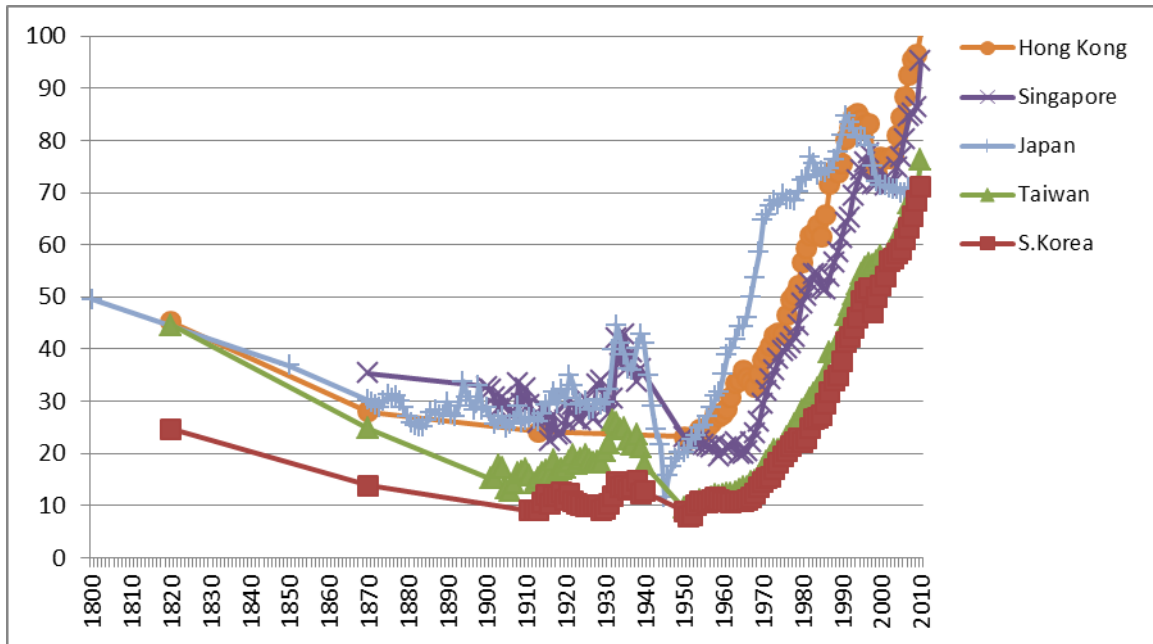


Source: World Development Indicators Database.

Growth rates of per capita GDP in MENA countries in the postwar period were certainly well below that in East Asian tigers and dragons (fig. 2, 3), and a bit below South Asia, but they were higher than in other regions of the Global South – Sub Sahara Africa, Latin America, and former Soviet Union. Three countries of the region – Israel, Oman, and Tunisia – were among 20 fastest growing countries of the world in 1950-2010 (fig. 4, table 1).

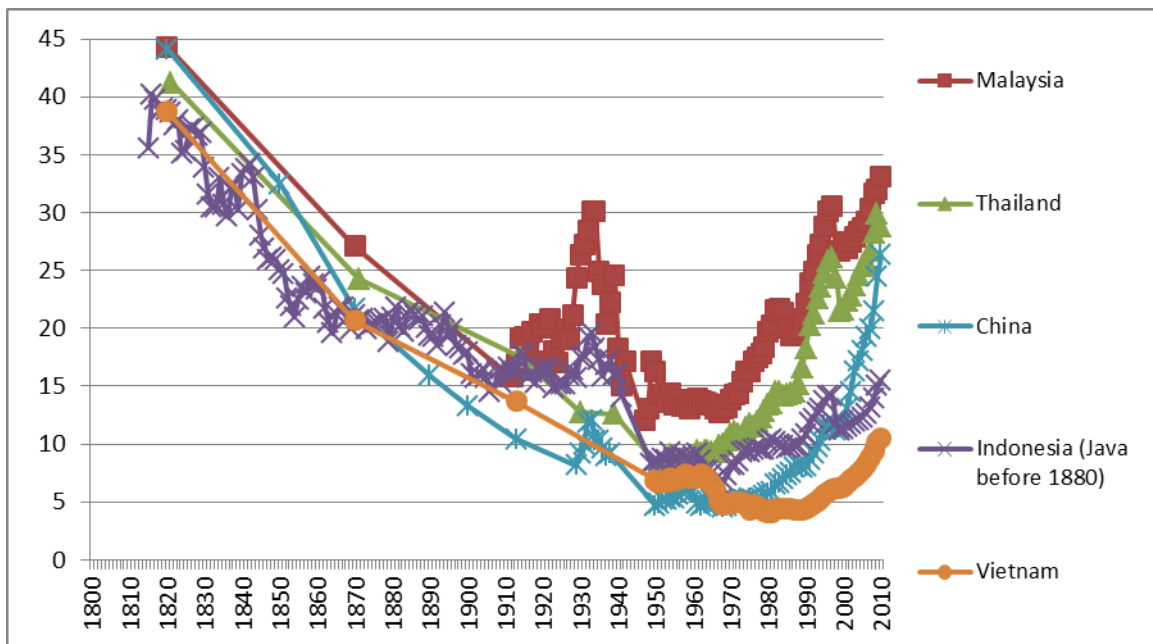
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Figure 2. PPP GDP per capita in countries that took off after the Second World War (Japan, Taiwan, Hong Kong Singapore, S. Korea)



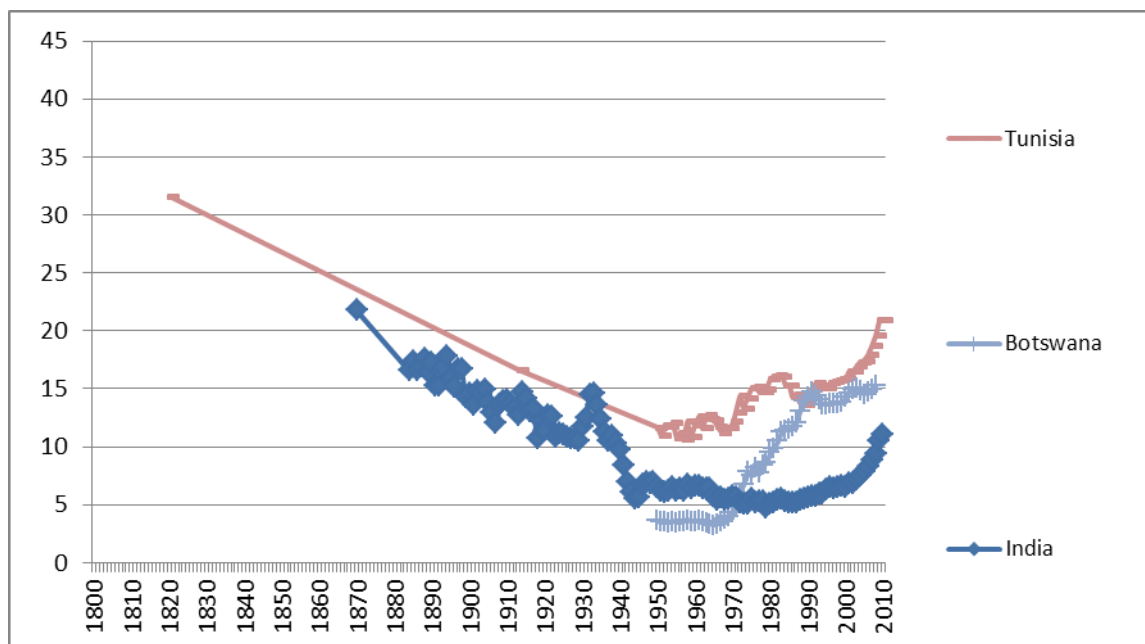
Source: Maddison, 2013.

Figure 3. PPP GDP per capita in countries that took off in the 1960s and later (SEA and China)



Source: Maddison, 2013.

Figure 4. PPP GDP per capita in some countries outside East Asia that took off in the 1960s and later (India, Tunisia, Botswana)



Source: Maddison, 2013.

In terms of social progress – education and life expectancy – the achievements of MENA were even more spectacular. Many MENA countries increased their life expectancy greatly in 1960-2010, in most of them it exceeded 70 years (in Russia – 72 years in 2015) – fig. 5. Human Development Index (HDI) – an average of calibrated indicators of per capita income, educational levels (enrolment and years of schooling) and life expectancy – increased by 65% in Arab countries in 1970-2010, which is more than in any other region of the world except for East Asia (96%) and South Asia (72%) – table 2. The increase in life expectancy in 1970-2010 in Arab countries was the highest in the world, whereas the increase in school enrolment and literacy was higher than in all other regions of the world with the exception of Sub Sahara Africa that started at a very low base level (table 2).

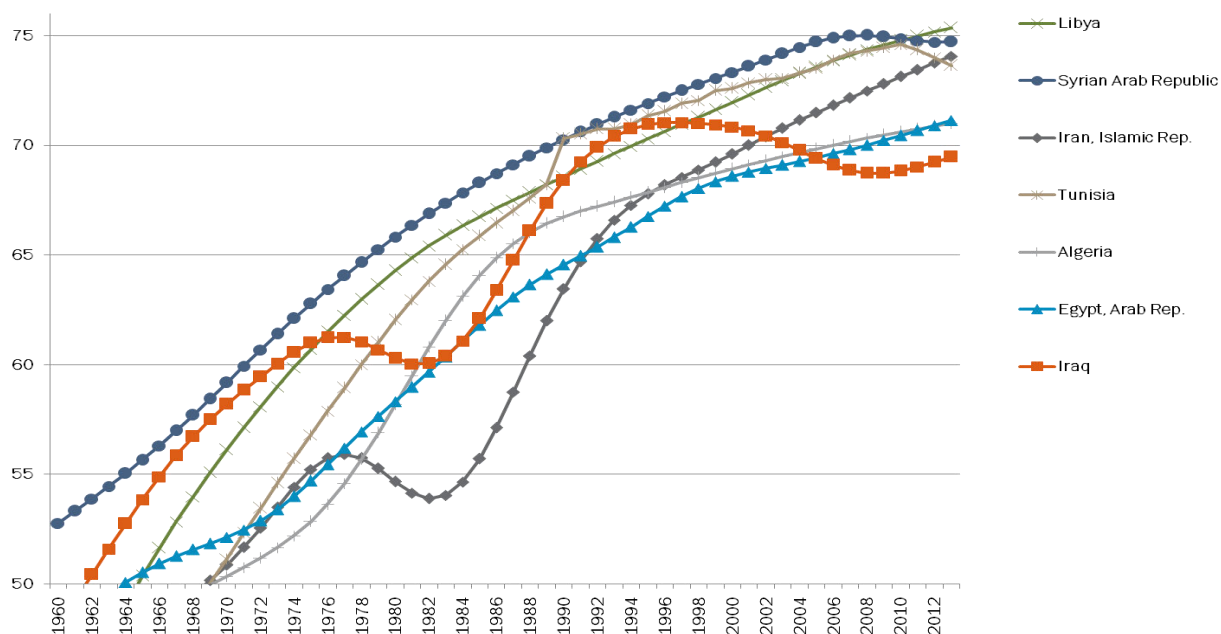
As table 3 shows, out of 22 countries that increased their HDI most in 1980-2010, 6 are Arab countries, 7 are MENA countries and 11 are Moslem countries. And among 10 countries with the greatest increase in HDI in 1970-2010 there are 5 MENA countries (Oman, Saudi Arabia, Tunisia, Algeria, Morocco). 6 out of 10 leaders in the improvement of non-income HDI (education and life expectancy) are from MENA – Oman, Saudi Arabia, Lybia, Algeria, Tunisia, Iran (table 4).

Table 1. Fastest growing countries – average annual per capita real GDP growth rates in 1950-2013, %

| Country / Period | Growth rate in 1950-2010 (Maddison) | Growth rate in 1960-2010 (Maddison) | Growth rate in 1960-2013 (WDI) |
|---------------------------------------|-------------------------------------|-------------------------------------|--------------------------------|
| Taiwan | 5.54 | 5.86 | |
| S. Korea | 5.54 | 5.91 | 5.97 |
| China | 4.93 | 5.12 | 6.60 |
| Oman | 4.70 | 4.82 | 6.48 |
| Hong Kong SAR, China | 4.48 | 4.67 | 4.17 |
| Botswana (Maddison data – until 2008) | 4.46 | 5.07 | 5.66 |
| Singapore | 4.38 | 5.19 | 5.19 |
| Thailand | 4.15 | 4.42 | 4.39 |
| Japan | 4.14 | 3.47 | 3.20 |
| Burma (Myanmar) | 3.80 | 3.84 | 2.77 (1960-2004) |
| Spain | 3.45 | 3.46 | 2.69 |
| Greece | 3.45 | 3.13 | 2.34 |
| Portugal | 3.26 | 3.20 | 3.04 |
| Israel | 3.25 | 2.87 | 2.98 |
| Montenegro | 3.18 (1952-2010) | 3.18 | |
| Austria | 3.17 | 2.65 | 2.55 |
| Malaysia | 3.16 | 3.84 | 3.77 |
| Ireland | 3.14 | 3.33 | 3.14 (1971-2013) |
| Indonesia | 2.97 | 3.12 | 3.54 |
| Tunisia | 2.95 | 3.16 | 2.94 |
| India | 2.87 | 3.04 | 3.12 |
| Lesotho (Maddison data – until 2008) | 2.88 | 2.94 | 3.06 |
| Sri Lanka | 2.45 | 2.88 | 3.42 |

Source: Maddison, 2013; World Development Indicators database.

Fig. 5. Life expectancy in some countries of the Middle East, years



Source: World Development Indicators.

Table 2. Human Development Index and its components for major regions in 1970-2010

| Regional groups | Hybrid HDI | | | Life expectancy | | | Literacy | | | Gross enrolment | | | Income | | |
|---------------------------------|------------|-----------|-----------|-----------------|-----------|-----------|----------|-----------|-----------|-----------------|-----------|-----------|--------|-----------|-----------|
| | Value | % change | | Value | % change | | Value | % change | | Value | % change | | Value | % change | |
| | 2010 | 1970-2010 | 1990-2010 | 2010 | 1970-2010 | 1990-2010 | 2010 | 1970-2010 | 1990-2010 | 2010 | 1970-2010 | 1990-2010 | 2010 | 1970-2010 | 1990-2010 |
| Developing countries | 0.64 | 57 | 23 | 68 | 21 | 8 | 81 | 61 | 21 | 66 | 28 | 24 | 5,873 | 184 | 89 |
| Arab States | 0.66 | 65 | 20 | 70 | 37 | 10 | 74 | 149 | 41 | 64 | 89 | 22 | 8,603 | 66 | 44 |
| East Asia and the Pacific | 0.71 | 96 | 35 | 73 | 23 | 9 | 94 | 76 | 18 | 69 | 7 | 31 | 6,504 | 1,183 | 352 |
| Europe and Central Asia | 0.75 | 13 | 4 | 69 | 3 | 2 | 97 | 7 | 2 | 82 | 17 | 7 | 11,866 | 120 | 20 |
| Latin America and the Caribbean | 0.77 | 32 | 12 | 74 | 24 | 9 | 92 | 27 | 10 | 83 | 59 | 16 | 11,092 | 88 | 42 |
| South Asia | 0.57 | 72 | 31 | 65 | 33 | 12 | 66 | 113 | 46 | 59 | 64 | 29 | 3,398 | 162 | 119 |
| Sub-Saharan Africa | 0.43 | 53 | 21 | 52 | 19 | 7 | 65 | 183 | 43 | 54 | 109 | 42 | 1,466 | 20 | 28 |
| Developed countries | 0.89 | 18 | 7 | 80 | 13 | 6 | 99 | 2 | 1 | 92 | 33 | 14 | 37,185 | 126 | 38 |
| OECD | 0.89 | 18 | 7 | 80 | 13 | 6 | 99 | 2 | 1 | 93 | 33 | 14 | 37,105 | 125 | 38 |
| Non-OECD | 0.86 | 24 | 9 | 80 | 14 | 7 | 96 | 13 | 6 | 79 | 29 | 10 | 40,043 | 263 | 58 |

Source: Human Development Report. UNDP

Table 3. Countries with the highest growth of Human Development Index in 1980-2010, % increases (Arab countries highlighted in red, Moslem non-Arab countries – in green)

| Country | % Increase | Country | % Increase |
|------------|------------|----------------------|------------|
| Nepal | 104 | Burundi | 56 |
| Mali | 88 | Rwanda | 55 |
| Bangladesh | 81 | Indonesia | 54 |
| China | 80 | Algeria | 53 |
| Benin | 65 | Sudan | 52 |
| India | 62 | Malawi | 49 |
| Morocco | 61 | Botswana | 47 |
| Egypt | 58 | Papua and New Guinea | 46 |
| Pakistan | 58 | Mozambique | 46 |
| Niger | 57 | Turkey | 45 |
| Tunisia | 56 | El Salvador | 45 |

Source: Human Development Report. UNDP.

Table 4. Top 10 countries with highest increases in HDI and its components in 1970-2010

| Rank | Improvements in | | |
|------|-----------------|---------------|------------------|
| | HDI | Nonincome HDI | Income |
| 1 | Oman | Oman | China |
| 2 | China | Nepal | Botswana |
| 3 | Nepal | Saudi Arabia | South Korea |
| 4 | Indonesia | Libya | Hong Kong, China |
| 5 | Saudi Arabia | Algeria | Malaysia |
| 6 | Lao PDR | Tunisia | Indonesia |
| 7 | Tunisia | Iran | Malta |
| 8 | South Korea | Ethiopia | Viet Nam |
| 9 | Algeria | South Korea | Mauritius |
| 10 | Morocco | Indonesia | India |

Note: Improvements in HDI and nonincome HDI are measured by the deviation from fit—how well a country does relative to other countries starting from the same point (see box 2.1). Improvements in income are measured by the annual percentage growth rate in per capita GDP.

Source: Table 2.2 of Human Development Report 2010. UNDP.

To put it differently, in terms of economic progress MENA countries in 1950-2010 were not the leaders, but also not the laggards – somewhere in between rapidly growing East and South Asia and more slowly growing Latin America, OECD countries, Sub-Saharan Africa and Former Soviet Union. But in terms of social progress in the period of several decades before the Arab Spring (1970-2010) MENA regions did better than all the other regions of the developing world.

On top of that inequalities in MENA region are lower than in other countries with similar level of economic development. Controlling for many factors (size, population density, per capita income, urbanization, democracy, communist past, government effectiveness index) it turns out that Moslem countries have Gini coefficient of income distribution that are 5 percentage points lower than in other countries².

But the most important advantage of MENA countries that is very often lacking in other parts of developing world is the strength of the state institutions – a crucial prerequisite for stable and strong economic growth. State institutional capacity is defined here as the ability of the state to enforce rules and regulations. Subjective measures of the state capacity – indices of government effectiveness, rule of law, corruptions, etc. – have a number of shortcomings (Popov, 2011), but there are objective indicators, such as crime rate, murder rate, the share of shadow economy – the ability of the state to enforce its monopoly on violence and monopoly on taxation.

² Regression equation linking inequalities with various determinants is given below:

$$Ineq = -0.26*** Y95us + 0.016*** PopDens + 6.47*1007***AREA - 832.1***Y99/Area + 0.18***URBAN - 4.11**Islam + 12.24*** TRANS - 4.07**GE2002 - 1.17*DEM - 0.09**EXfuel + 46.4***,$$

N = 114, R-squared = 0.6089,

where:

Ineq – Gini coefficient of income distribution in 1990-2005 (last available year),

Y95us – PPP GDP per capita in 1995 as a % of the US level,

PopDens – population density in 2002 (number of persons per 1 sq. km),

TRANS- dummy variable for the communist past,

DEM – average index of authoritarianism in 1970-2002 (average index of political rights from Freedom House, varies from 1 to 7, higher values indicate more authoritarianism)

GE2002 - government effectiveness index in 2002,

URBAN –share of urban population in 2002,

Y99/Area – ratio of PPP GDP in 1999 per 1 square km of national territory,

Islam – dummy variable for the membership in Organization of Islamic Conference.

The general rule is that developed countries, East Asia, South Asia and MENA countries have murder rates of 1-10 murders per 100,000 inhabitants and shadow economy of less than 30% of GDP, whereas in Sub Sahara Africa, Latin America and some former Soviet Union republics (Baltics, Belarus, Kazakhstan, Moldova, Russia, Ukraine) the murder rate is higher by the order of magnitude (10-100 murders per 100,000) and the shadow economy is way over 30% of GDP (figs. 6-8, see Popov, 2014 for details). Economic growth in large regions of the Global South correlates strongly with the murder rate and shadow economy (negative correlation – the higher the murder rate and the shadow economy, the lower is growth). East Asia is ahead of everyone in terms of growth, followed by South Asia and MENA, while Latin America, Sub Sahara Africa and former Soviet Union are falling behind.

In fact, the murder rate and the share of the shadow economy – the objective indicators of the institutional capacity of the state – turn out to be the best institutional predictors of the long term growth rates of GDP per capita. In regressions for over 50 years (1960-2013) for 80 countries for which data are available, up to 40% of variations in GDP per capita growth are explained by the level of development (GDP per capita) and institutional indicators (murder rate and share of shadow economy)³. These regressions are quite robust and hold for different sub-periods (1960-75, 1975-2000, 2000-13). Among variables that are not directly related to growth, such as investment rate, population growth rates, etc., state institutional capacity turns out to be the single most important predictor of growth (Popov, 2015). The negative relationship between growth rate and state institutional capacity as measured by the murder rate and the share of shadow economy can be observed with a naked eye at figs. 9 and 10. And countries with high income and wealth inequalities usually have higher murder rate and shadow economy (fig. 11 and 12).

$$^3 y = -0.0003^{***} Ycap75 - 0.03^{*} MURDERS - 0.14^{***} SHADOW + 5.32^{***}$$

(-4.95) (1.67) (-4.82) (8.55)

N=80, R² = 0.38, robust standard errors, T-statistics in brackets below;

$$y = 0.003^{***} POPDENS - 0.0002^{***} Ycap75 - 0.023 MURDERS - 0.067^{***} SHADOW + 5.04^{***}$$

(4.08) (-4.33) (-1.62) (-4.40) (7.67)

N=80, R² = 0.40, robust standard errors, T-statistics in brackets below, where

y – annual average growth rates of per capita GDP in 1960-2013, %,

POPDENS – number of residents per 1 square km in 2000,

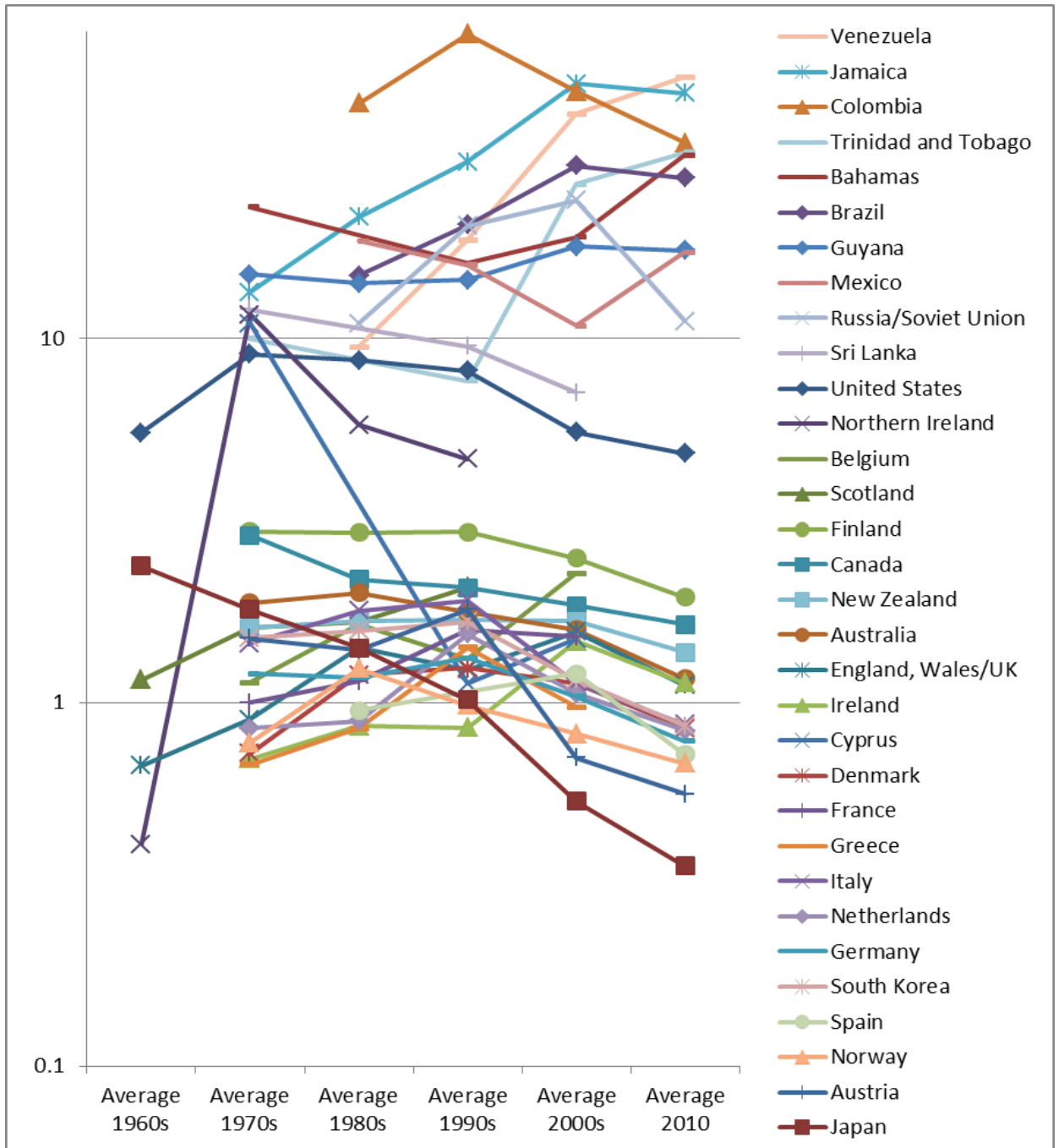
Ycap75 – per capita PPP GDP in 1975 in dollars,

MURDERS – number of murders per 100,000 inhabitants in 2002,

SHADOW – share of shadow economy in GDP in 2005, %.

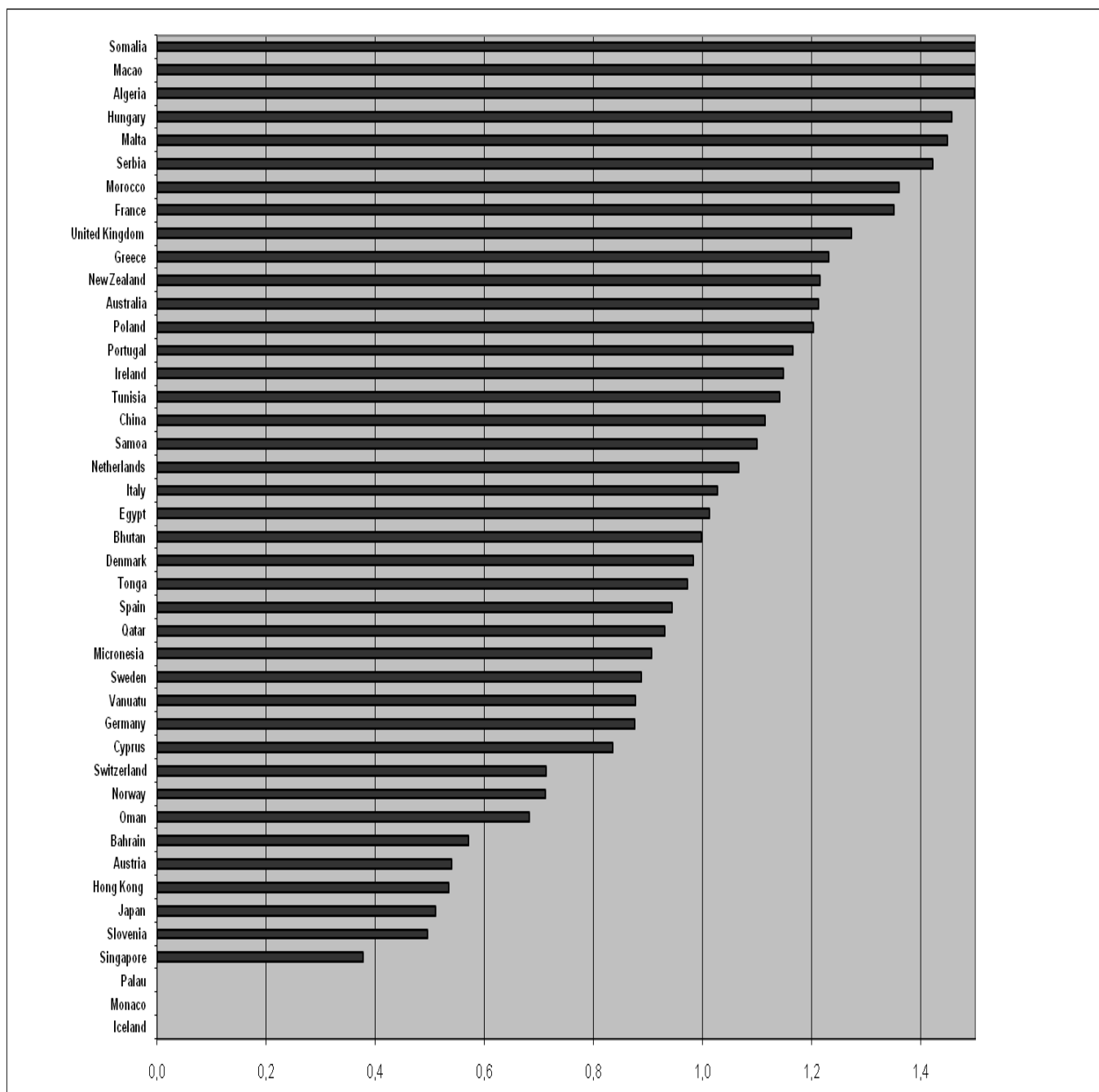
Data on growth, population density and PPP GDP per capita are from WDI, data on murders are from WHO, data on shadow economy are from Schneider, 2007 (measures of the shadow economy are derived from divergence between output dynamics and electricity consumption, demand for real cash balances, etc.).

Fig. 6. Average murder rates in 1960-2013 by decades, per 100,000 inhabitants, log scale (countries for which data are available for 3 and more decades)



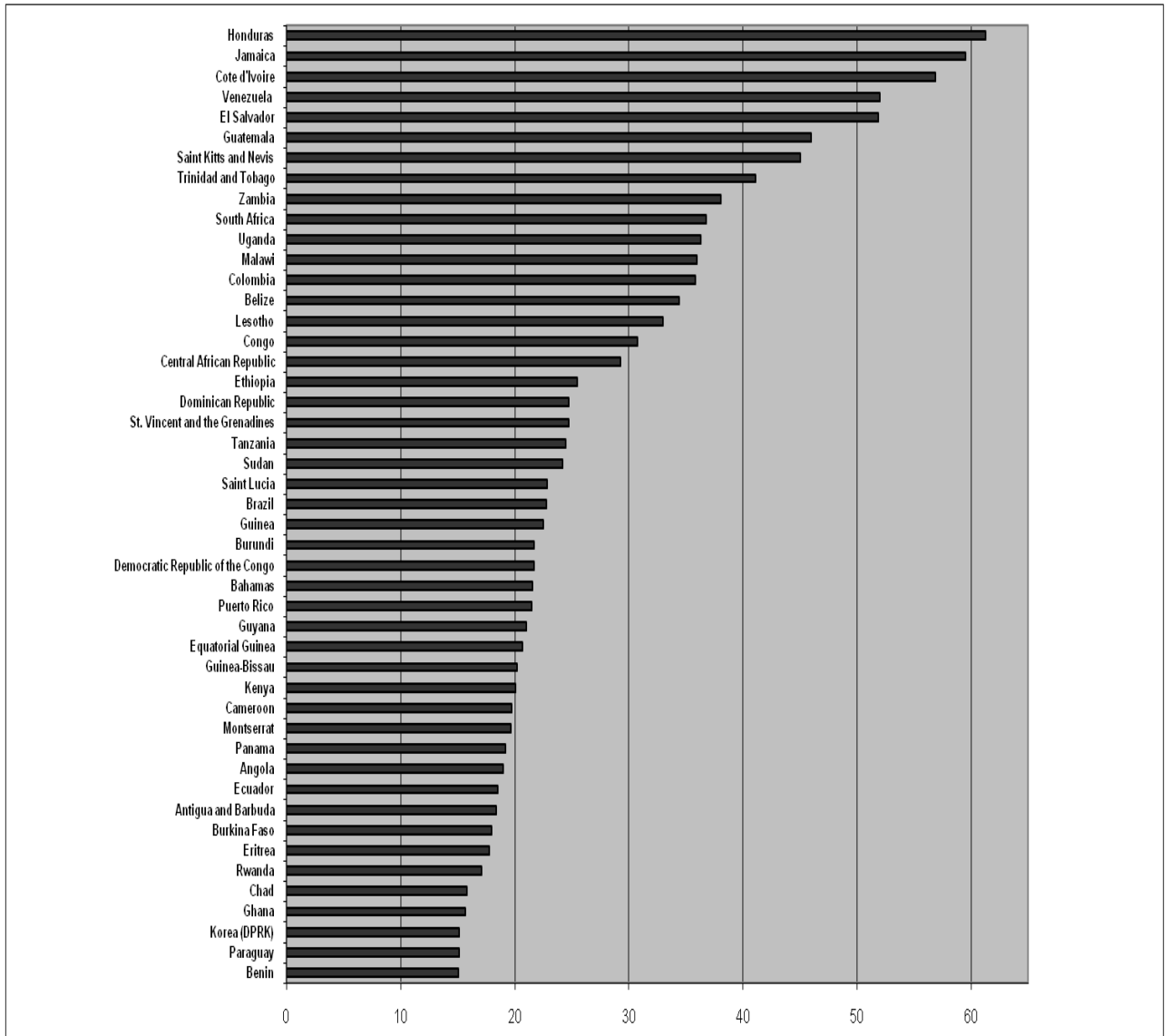
Source: List of countries by intentional homicide rate (http://en.wikipedia.org/wiki/List_of_countries_by_intentional_homicide_rate). Data are taken from different sources (mostly national data provided to WHO) and sometimes are not strictly comparable.

Fig. 7. Murder rate in countries with less than 1.5 murders per 100,000 inhabitants in 2008



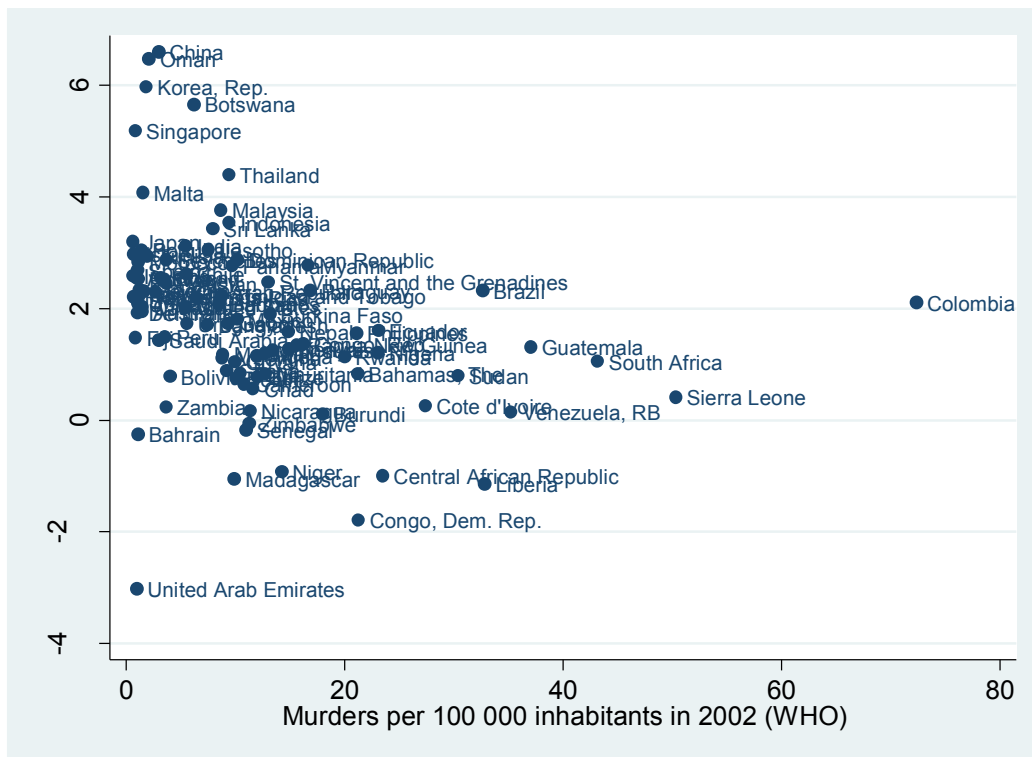
Source: UNODC.

Fig. 8. Murder rate in countries with over 15 murders per 100,000 inhabitants in 2008



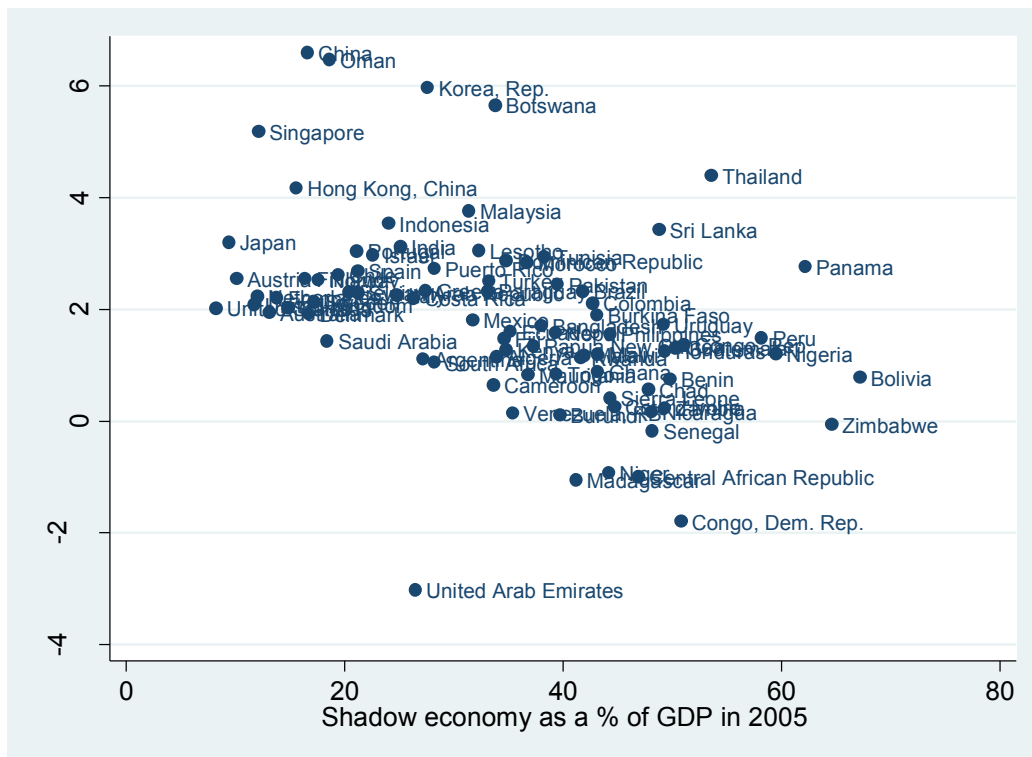
Источник: UNODC.

Figure 9. Murder rate in 2002 per 100,000 inhabitants and average annual per capita GDP growth rates in 1960-2013, %



Source: WDI; WHO.

Figure 10. Shadow economy in 2005 and annual average growth rates of per capita GDP in 1960-2013, %



Source: WDI; Schneider, 2007.

Figure 11. Shadow economy and Gini coefficient of income inequalities in 1990-2005

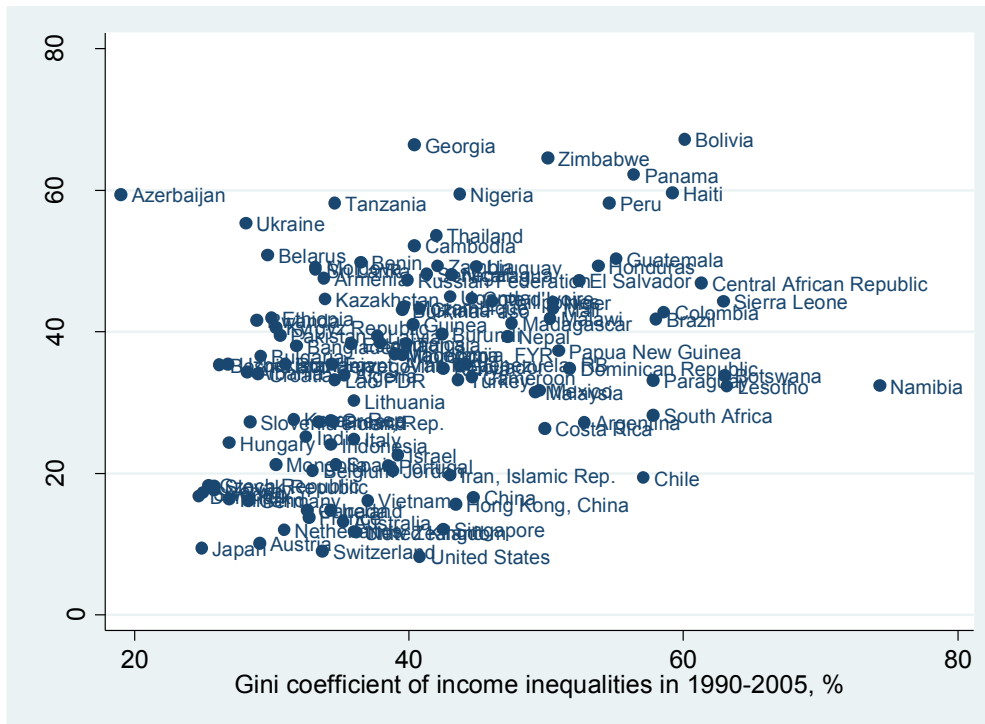
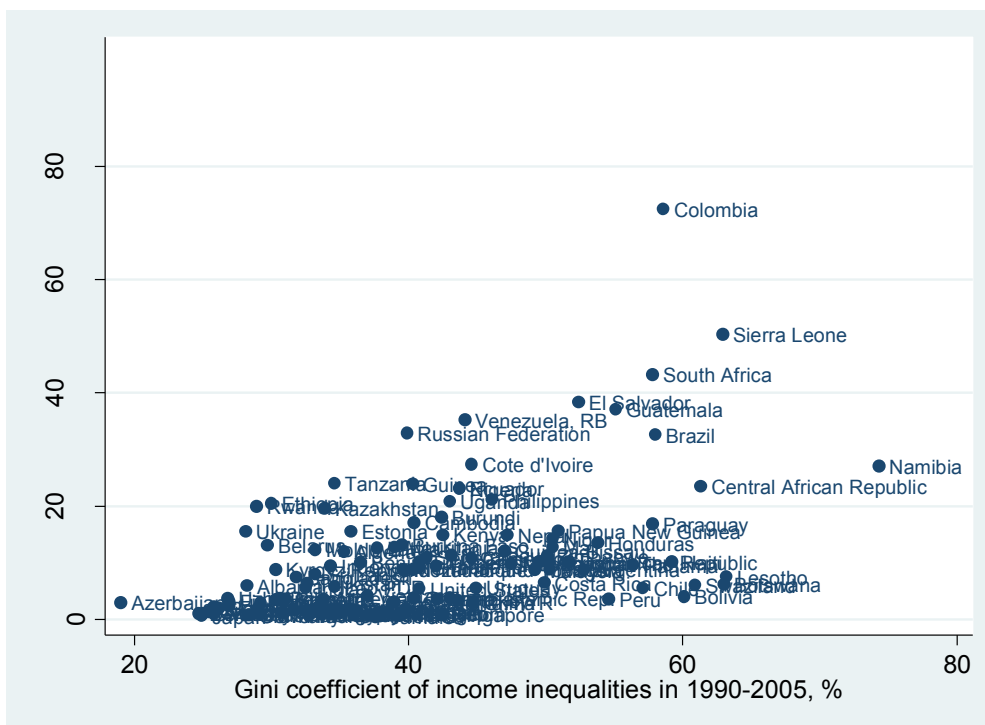


Figure 12. Murder rate and Gini coefficient of income inequalities in 1990-2005



Source: WHO; Schneider, 2007; WDI.

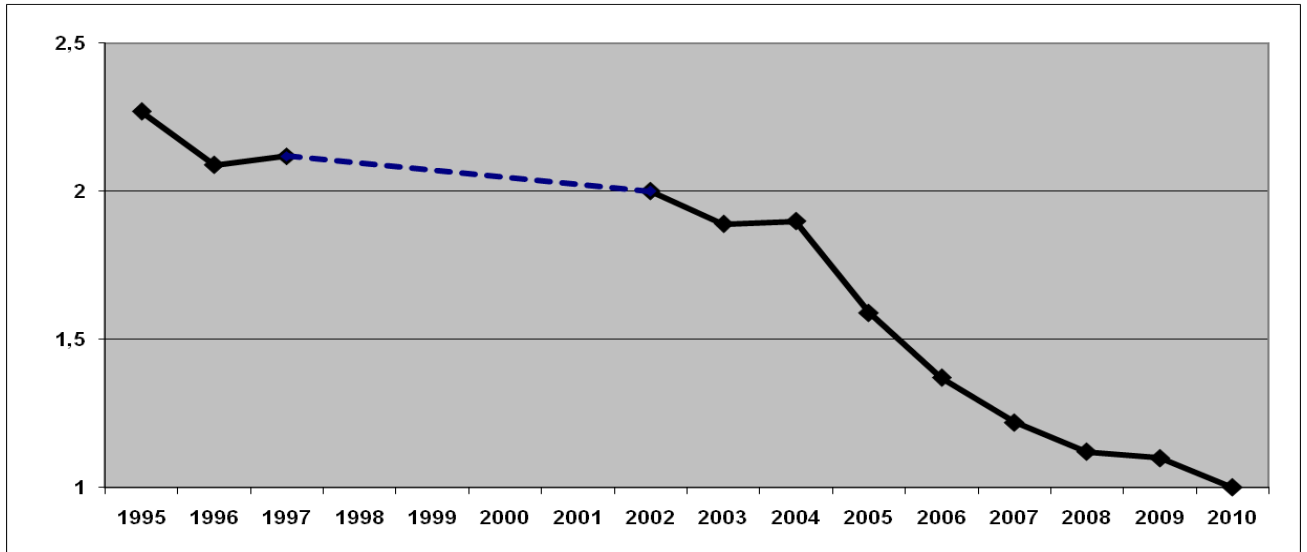
Manufacturing growth is like cooking a good dish—all needed ingredients should be in the right proportion; if only one is under- or overrepresented, the ‘chemistry of growth’ will not happen. Fast economic growth can materialize in practice only if several necessary conditions are met at the same time.

Rapid growth is a complicated process that requires a number of crucial inputs—infrastructure, human capital, even land distribution in agrarian countries, strong state institutions, economic stimuli, among other things. Once one of these crucial necessary ingredients is missing, the growth just does not take off. Rodrik, Hausmann and Velasco (2005) talk about ‘binding constraints’ that hold back economic growth; finding these constraints is the task of ‘growth diagnostics’. In some cases, these constraints are associated with the lack of market liberalization, in others, with the lack of state capacity or human capital or infrastructure.

Why economic liberalization worked in central Europe, but did not work in SSA and LA? The answer, according to the outlined approach, would be that in central Europe the missing ingredient was economic liberalization, whereas in SSA and LA there was a lack of state capacity, not the lack of market liberalization. Why liberalization worked in China and central Europe and did not work in CIS? Because in the CIS it was carried out in such a way as to undermine the state capacity—the precious heritage of socialist past—whereas in central Europe, and even more so in China, the state capacity did not decline substantially during transition.

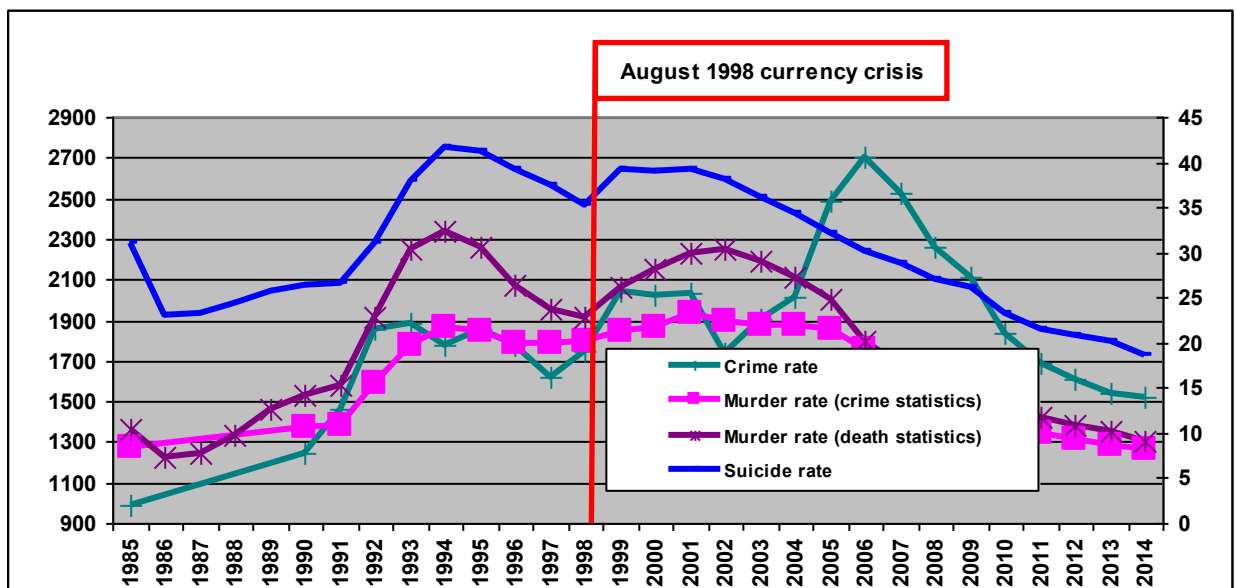
MENA countries have lower inequalities and stronger state institutional capacity— the ability to enforce rules and regulation (ability to control crime and shadow economy), whatever these rules and regulations might be. For the comparison purposes: in China the murder rate was 1 per 100,000 inhabitants under Mao, about 2 in the 1990s-2000s and again 1 in 2010 (fig. 13), whereas in Russia it went up from 7-10 in late Soviet times to 30 in the rocky 1990s and declined again to about 10 by 2014 (fig. 14). In MENA countries these rates in the peacetime were normally in the range of 1 to 5 per 100,000 inhabitants (– Algeria, Tunisia, Egypt, Qatar, Oman, Bahrain – less than 1.5 – fig. 7). No wonder, such strong institutional capacity contributed to relatively strong economic performance and exceptional increases in life expectancy and educational attainments in recent decades, especially in periods with no wars and civil conflicts.

Fig. 13. Murder rate in China per 100,000



Source: UNODC.

Fig. 14. Crime rate (left scale), murder rates and suicide rate (right scale) per 100,000 inhabitants



Source: Federal Statistical Service of RF.

Looking into the future, MENA countries have definitely many crucial ingredients of economic growth – natural resources, human capital, low inequalities and most important – strong state institutions, ensuring low crime and shadow economy rates. They were making rapid economic and social progress in 1960-2010 and have many necessary pre-conditions to become growth miracles in the future, provided that ethnic and religious conflicts are brought to an end and peace prevails.

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