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The OPEC/MENA/Arab nexus and the missing democratic transition

Martin Paldam, Aarhus University, Denmark[1]

Abstract:
The democratic transition is a strong relation in the data, as analyzed elsewhere. This paper deals with the only large exception: The 26 countries in the OPEC/MENA/Arab nexus have no democratic transition. The explanation is complex as it requires (at least) two intertwined theories: The *oil theory* (for OPEC) and the *institutional genes theory* (for MENA). More than half of the OPEC and MENA groups overlap, and in addition all but two of the MENA countries are Arab, with similar language, religion, history, and culture, giving spatial effects. The paper is an attempt to untangle and test the theories, and demonstrate that both theories are needed, hence the overlapping countries that are both OPEC and MENA are especially far from democracy.

Keywords: Democratic transition, the OPEC/MENA/Arab exception
Jel: P52, Q43, R12, Z12

[1] Department of Economics and Business, Fuglesangs Allé 4, DK-8210 Aarhus V.
Phone: 45-87175545, email: mpaldam@econ.au.dk, home page: http://www.martin.paldam.dk.
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1. Introduction

In the theory of economic growth, a transition is the change from one steady state to another. Economic history knows of two basic steady states: The traditional and the modern; see Maddison, 2001, and Galor, 2011. Consequently, this paper sees a *transition* as a change in a variable when a country develops from the traditional to the modern steady state.[2] The full process for all variables is the *Grand Transition*. It takes more than a century and consists of confluent transitions – explained by income – in all(?) socioeconomic variables.

The average political system (the *PV* indices) of the *Main* group of most countries has a typical transition curve ⌒. Poor countries are stable autocracies of roughly the same type. Economic development changes the power structure systematically until stable democracy is reached. The democratic transition in the Main group is analyzed in Paldam (2021, 2024, 2025) – from now *ibid* – that has many robustness tests, analyses of causality and copious reference lists. Section 2 is a brief summary of the findings and explanations.

The subject of this paper is the only major exception: The *OMA* group of the 26 OPEC-MENA-Arab countries has no democratic transition. The data gives a different curve ∩, with a hump and a weakly falling trend, so the curves for the two country groups diverge. The average path as a function of income is well determined. Thus, it must have a *general* explanation. Section 3 surveys the literature and presents three theories:

(T1) The *oil theory*. The large resource rents from oil have given the OPEC countries a different development path. (T2) The *institutional genes theory* considers the long roots of society in the MENA (notably Arab) region, as indicated with the term 'genes'. Though it does change, it does so very slowly. (T3) The *conflict proneness* theory notes that MENA countries have had an unusually high number of conflicts in the last 75 years.

To identify what each theory may explain is difficult as the OPEC, MENA, and Arab country *groups* overlap. In addition, the Arab group, has related language, religion, and history. Even when the Arab countries occasionally quarrel, they mostly cooperate. Hence, their data contains spatial effects. Three non-overlapping *sub-groups*: OPEC-only, MENA-only, and Overlap, are used to separate the effects. Appendix Table B lists the countries in groups and sub-groups.

The paper looks at common long run trends in country groups, and hence it uses large

[2] Unfortunately, the term *transition* has found a broader use. Many speak about the transition from socialism in Eastern Europe, or to changes over time in general. This paper uses the strict definition mentioned.

data samples for a few key variables: y, income (the natural logarithm to real GDP per capita), and the two main democracy indices, P polity and V polyarchy. The curves found give well determined long-run paths. They are overlaid with much short-run fuzziness, but it is still the core path of the political system, and thus an important part of the skeleton of development. In this perspective many interesting stories about individual countries must be disregarded. Occam's razor has been a key instrument in researching the paper.

The tool used to reveal long-run common trends in multi-country samples is kernel regression on the unified panel of the sample.[3] It is used for all figures except Figures 4 and 5. The unified panel $(P, y)_{it}$ (where i is country and t time) is the vector $(P, y)_j$ with $j = it$ elements in some order. When P is explained by y, the kernel is $P(y) = K^P(y, bw)$. Here the vector is ordered by y, as on Figures 1, 3, 6, and 7. The kernel curve is a moving average of P in the sorted vector with a constant bandwidth bw, smoothed by the Epanechnikov kernel, *ibid*. The interpretation presumes *equivalence*: Wide cross-country samples reflect the long run and give the same picture as long time series.[4]

No economic theory and few restrictions on its form are used to calculate kernel curves. Hence, it is a test of a *theory* if a curve with the form it predicts can be drawn within the 95% confidence intervals of the kernel. This is not a test of a model but a test of a theory,[5] i.e., it studies if a certain theory is able to explain the observed path of a variable.

Kernel regression provides strong tests under two conditions: (i) The confidence intervals are narrow, and (ii) the prediction is distinct. These conditions both hold for the democratic transition for the main sample, but it is more complicated for the OMA sample as at least two theories prove necessary. Condition (i) also shows that the unification is justified.

Section 2 reports the stylized facts to be explained. Section 3 is a brief literature survey discussing the three theories. The end of the section makes three predictions about the development in the three (non-overlapping) sub-groups. Section 4 uses standard regression analysis with binary group dummies, while section 5 looks at kernels for the groups and sub-groups, confirming the predictions. The two tables A and B in the Appendix are for easy reference; Table A covers terminology, variables, and country groups, while Table B lists the countries in the sub-groups and groups. The documentation for everything claimed is too bulky to present within the frames of a paper. Thus, a Net-Appendix is available, see sources.

[3] Kernel regression is a commonly used technique in many fields but not in comparative macroeconomics, where the author thinks it should be prominent.
[4] When data allow, equivalence should be confirmed. Equivalence is shown for the democratic transition, *ibid*.
[5] Theories are qualitative and mostly only predict the sign of slopes. However, transition theory predicts a distinct nonlinear form of the relation. Hence, kernel regression is a fine technique to study transitions.

2. The stylized facts to be explained

Table A lists the samples analyzed. This section divides the data into the Main and the OMA sample. Sections 4 and 5 divide the OMA sample into three groups and three sub-groups.

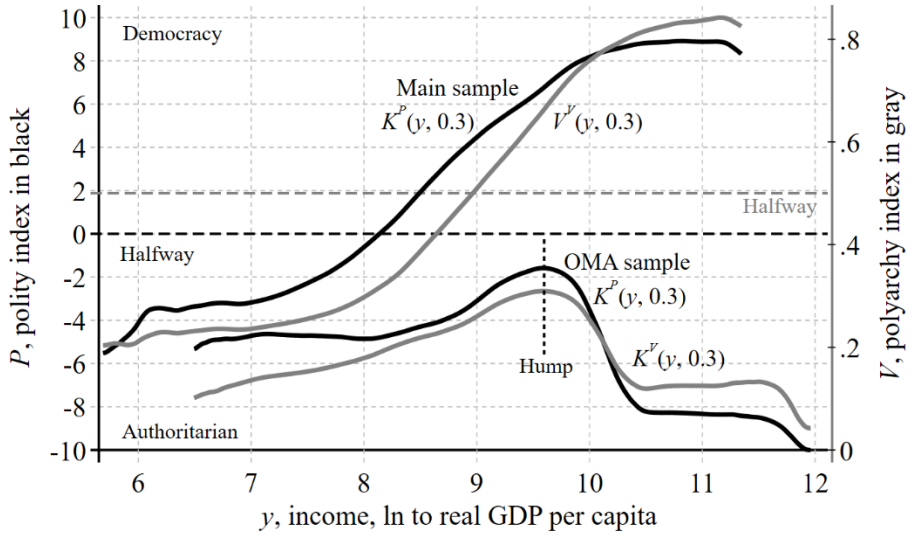
2.1 The gap: The democratic transition and the OMA exception[6]

Figure 1 gives the kernel regressions, $K^P(y, 0.3)$ and $K^V(y, 0.3)$, explaining the *P* and *V* democracy indices by *y* income, for the *Main* and the *OMA* samples. The black curves and the left-hand axis are for *P*, polity, while the gray curves and the right-hand axis are for *V*, the polyarchy index. This color scheme is also used for Figures 2 and 3.

The two curves for the Main sample show perfect transition curves. There is indeed a strong democratic transition in the main sample. The OMA-curves differ in three ways: (i) They are fully in the lower, authoritarian, half of the picture, (ii) they have a hump-shape, with a peak midway, and (iii) they have a weakly negative trend.

The curves are calculated for all available data, but they are robust to sub-samples of the data, e.g., they are very similar if the samples are started when OPEC was formed in 1960; see Net Appendix, which also reports the 95% confidence intervals. They are so close to the curve that they are hard to see for the Main sample, but they are wider for the OMA sample for reasons discussed in Section 5. The confidence intervals for the two samples do not overlap.

Figure 1. Kernel regressions explaining the *PV* democracy indices by *y*, income



[6] *Ibid* analyze the transition curve for the Main sample. It shows the robustness of the curve, discusses the kernel technique used, and provides evidence that the main direction of causality is from income to the political system. The Net Appendix adds evidence for the OMA sample.

The start of an oil sector gives a jump in income, with no change in political structure, so that all that happens is a shift of the curves to the right. This explains some of the small difference between the Main and the OMA curves at low income.

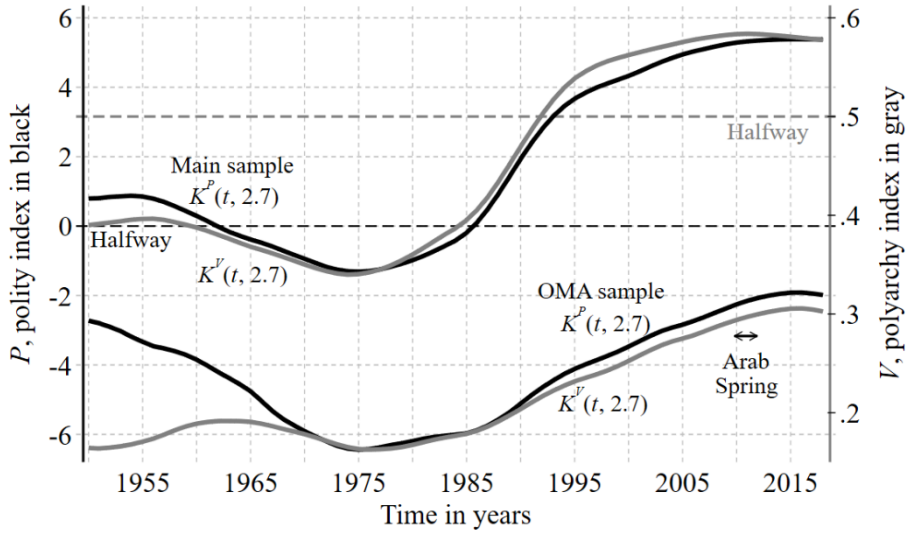
However, the key fact to be explained is that the curves continue to diverge as income grows. This has given a large *gap* between the curves for the samples. It can be measured in % of the range of the indices. It grows from 10% at low income to no less than 75% at high income. Section 3 looks at the main theories trying to explain the gap.

2.2 The development over time

The transition is a function of income, and income grows over time, so the transition leads to a secondary development in the democratic indices over time, as Figure 2 shows. The curves for the two samples are similar in form, but do not overlap. The OMA curves are much lower and show smaller changes. Furthermore, the curves over time have substantially larger confidence intervals than the curves over income; see Net Appendix. Thus, the transition curves are better determined.

The curves for Figure 1 only change marginally when the period is shortened, but this is not the case for Figure 2. The data from 1800-1950 are very thin, and they show large fluctuations that are hard to interpret, so Figure 2 starts in 1950.

Figure 2. Kernel regressions explaining the *PV* democracy indices by *t*, time



N = 7,253 for the Main sample, and N = 1,542 for the OMA sample.

While the relation is clear for the main sample, it is more dubious for the OMA sample,

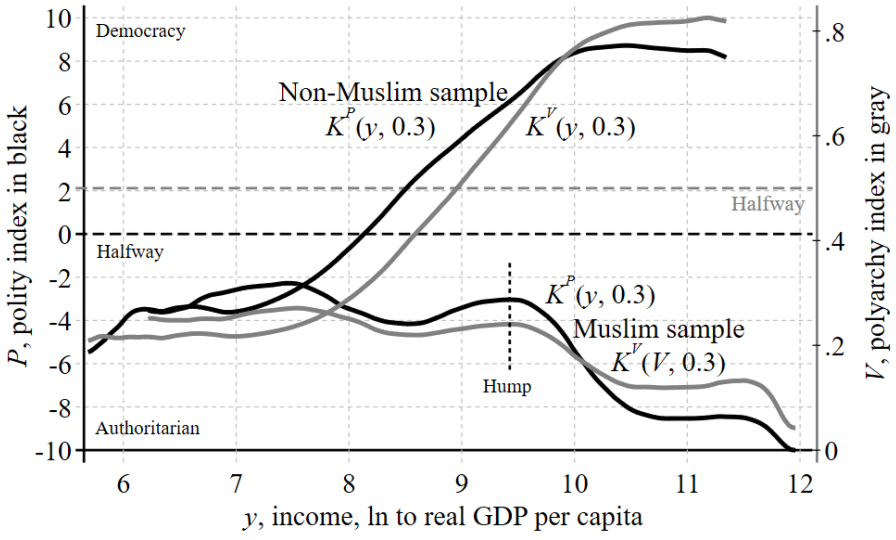
where the trend over time is less clear, especially since the curves have moved downward after 2018. The effect of the Arab Spring is unclear too. The polity index has not been updated, but the polyarchy index now goes to 2023 and so does the Freedom House index; see Net Appendix. While the polyarchy index shows a small fall, the fall is substantial in the Freedom House index.

In addition to the picture in Figure 2, there is also literature on the very long run for the MENA area. It stresses the waves of colonial legacy: First the Arab and then the Ottoman empires, and finally the (short) Western imperial rule; see Chaney (2012), Chaney and Blayne (2013) and Hariri (2015). These authors claim that the legacy of the Arab empire is the most important. This supports the institutional genes theory.

2.3 All Muslim countries

The Organisation of Islamic Cooperation has 57 members. Ten have a non-Muslim majority. Somalia and Brunei lack data, and so do Palestine which has a partly dependent political system. Thus, 44 countries remain, giving a sample size of N = 2,441. Figure 3 shows the curves corresponding to Figure 1 for the 112 non-Muslim and the 44 Muslim countries.

Figure 3. Kernel regressions explaining the *PV* democracy indices by *y*, income



Of the 44 countries, 13 are in the Sahel region of African that is in the low end of the income spectrum, where the difference between the Main and the Muslim group is small. All the high-income observations are for OPEC countries where the curves merge. Seven countries are post socialist. Chapter 3.3 in Paldam (2021) shows that the political system of these

countries has converged to the MENA pattern after 1990, while the other 21 post socialist countries are converging to the main pattern. The remaining six countries are Afghanistan, Indonesia, Bangladesh, Malaysia, Maldives, and Pakistan.

Figure 3 looks much as Figure 1, but the curves for the two samples overlap in the beginning, where they have an extra top due to the African countries that had a democracy wave when they became independent (see net Appendix). The Muslim countries outside the MENA region have been Muslim for a shorter time, and in most of the countries the period of Western colonialism lasted longer, so the institutional genes are likely to be weaker, but still the story of all Muslim countries is almost as the OMA story.

Figure 4. Polity. Frequency distribution in %

Figure 4A. Main sample

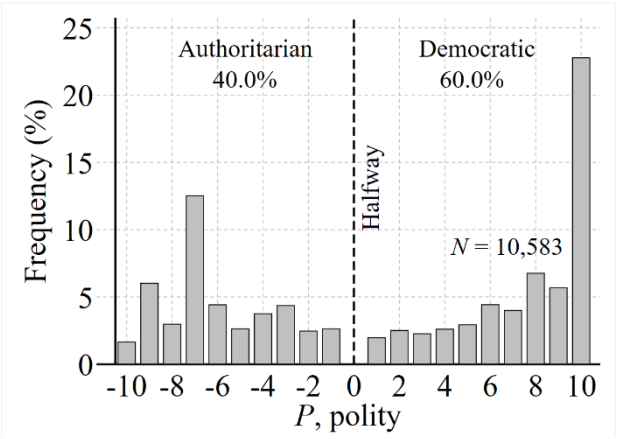


Figure 4B. OMA sample

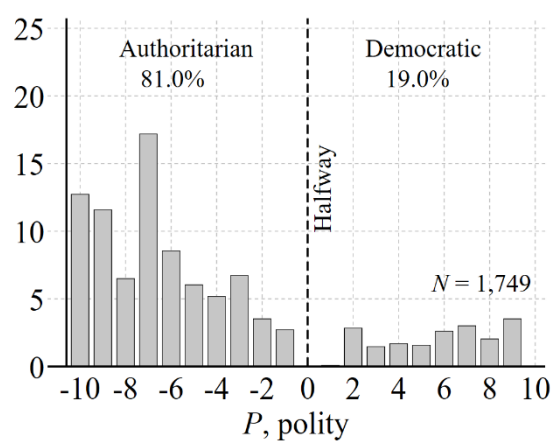


Figure 5. Polyarchy. Frequency distribution in %

Figure 5A. Main sample

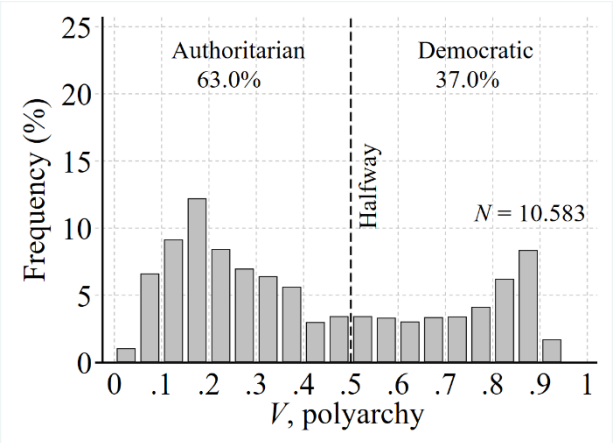
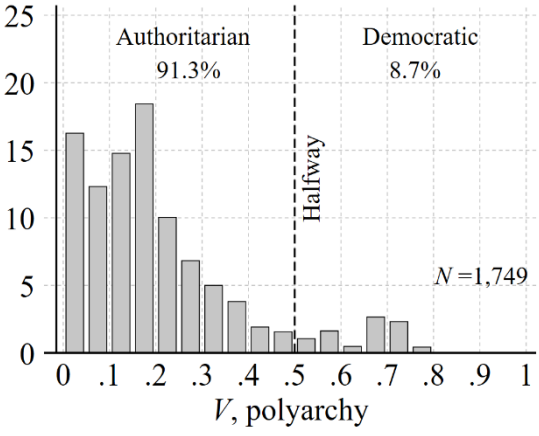


Figure 5B. OMA sample



The bin for polity is one point, while it is 0.05 for polyarchy. The polity index uses zero for an unclear system. These cases are omitted. Frequency distributions for the three groups are reported in the Net Appendix.

2.4 The frequency distribution of the observations of the samples

The four graphs of Figures 4 and 5 make three points: (i) They give an alternative view of the difference between the Main and the OMA countries. (ii) They show how non-normal political indices are. (ii) They illustrate the difference between the indices. Many countries are perfect democracies by polity, while polyarchy is stingier.

The two Figures A for the Main sample have two peaks for the steady states. Figures B shows the skewness to the left in the OMA sample, which gives a much lower PV-level than in other countries. The average income is $y_{Main} = 8.41$ and $y_{OMA} = 8.72$. If the OMA countries followed the democratic transition, the skewness should be small and go the other way.

3. Three theories that may explain the gap

The gap in democracy in the Main and the OMA sample has been known for a long time, see Borooah and Paldam (2007) and Potrafke (2012), who cover the older literature. The gap has caused conflict, so it is no wonder that the explanation of this fact has led to a huge discussion.[7] It includes many attempts to talk down the gap. Chapter 1 in Eldabawi and Makdisi (2017) is a fine survey of the discussion.

3.1 Looking for general theories

The three sub-groups consist of only 8, 8, and 10 countries, so results may not be robust. Stories can be told about each country. Saudi Arabia treasures traditional/orthodox Islam and is the guardian of its most holy places, while other MENA countries, such as Algeria, Libya, Egypt, Syria, and Iraq have had periods of Arab socialism. There have also been waves of radical Islam. In the MENA group the two non-Arab MENA countries are the most deviating countries. Iran became a theocracy in 1980, and Turkey has been a democracy and stretches into Europe.[8] The Net Appendix shows that the two counties only matter marginally for the results discussed.

This tally with the finding that the two curve-pairs in Figure 1 are robust and have narrow confidence intervals. Thus, there is an underlying pattern that generalizes. So, from now on theories that explain the development of one country only are disregarded. Three general theories will be discussed.

(T1) The ***oil theory*** looks at the effect of oil in the OPEC countries. Development causes systematic changes of the *power structure* in society and hence in the *political system*. Section 3.2 surveys the theory explaining the democratic transition in the Main group of countries. Section 3.3 shows that the transition story turns around in oil countries. This theory is an extreme version of the resource richness theory. It uses well understood economic mechanisms. The OPEC group is taken as a proxy for oil abundance.

(T2) The ***institutional genes*** theory notes that the MENA group holds the core countries of Islam, and all countries in the region have been Muslim for 1300 years, so these countries

[7] 'Islam and democracy' give 41 million hits in Google. The discussion was fueled by two bestsellers: Huntington (1992), speaking of *the clash of civilizations* and Lewis (2002), looking at the long period of *stagnation in the Muslim world* starting in the 16th century, where the West laid the foundations for modern economic growth.

[8] Iran and Turkey have separate languages and long histories of independence. Iran is the only Shiia majority country. Vahabi (2024) argue that the concept of *Anfal* (limited property rights) in Shiia theology is crucial for the development of the country. Turkey is a bridge between MENA and Europe, and Mustafa Kemal Atatürk who ruled Turkey 1923-38 followed a policy of development through modernization that included secularization.

have a deeply embedded culture that include a set of institutions. The theory is somewhat wooly in the sense that it deals with a closely knit package, where any part can be singled out. Section 3.4 presents our version of the theory.

(T3) A ***conflict proneness*** theory that notes that the Middle East has had an unusual frequency of wars and civil wars. This theory is discussed in Section 3.5 only. Section 3.6 uses theories (T1) and (T2) to make predictions about the three sub-groups.

3.2 The democratic transition in the Main sample: Dynamics of the three pillars model

The explanation (T1) is the oil-version of the general theory of the democratic *transition, ibid.* This is evident when it is compared with the transition in the Main sample.

The *PV*-indices go back to the year 1800, where they covered 22-25 (mainly European) countries that still exist, though often after some change of territory. Except for the new country, USA, all countries were kingdoms. Historical narratives for these countries, and at least twice as many, go much further back in time. Thus, we know that during the last 500 years before 1800 nearly all countries were kingdoms, where the power of the king was based on *three pillars:* A royal dynasty headed by a king, a feudal nobility/regional chiefs, and a monopoly 'Church'.[9] Today, all high-income countries have turned democratic, except the richest OMA countries (and Singapore). The change in the political system is neatly explained by the fact that the Grand Transition systematically undermined two of the pillars:

The *agricultural transition* changed the share of agriculture in GDP from about 50% to about 2%. This meant that the share of GDP accruing to the feudal aristocracy fell similarly. This surely reduced its power, and allowed most countries to make land reforms, and abolish the privileges of the aristocracy.

The *religiosity transition* changed the share of strongly religious people from almost 90% to about 30%. The share of the Church sector in GDP has fallen even more. Thus, the power of the Church has fallen substantially.[10] With the great weakening of the two pillars, the royal pillar has been weakened too, and kings have been abolished or turned into national symbols.

The agricultural and Church sectors have been replaced with other sectors, and the middle class has come to dominate. It has absorbed the huge increase in human capital, and it

[9] The term Church (with a capital letter) is used for the institution of the religion, even if it is not Christian.
[10] Religiosity is defined as the percentage of strongly religious respondents at polls. The World Values Survey covers 14 aspects of religiosity in many countries over 5 (soon 6) waves. Thus, each poll gives a matrix of (14 *x* 6) values for the religiosity of people. A factor analysis shows that one strong factor dominates these values. Thus, it is a measure of religiosity, *ibid*.

wanted mass representation. Consequently, democracy resulted.

This story gives an underlying transition path, where the long-run causality is from development to the political system.[11] However, political regimes in power always try to consolidate, so countries typically see spells of constant regimes of about a dozen years even when the transition is fastest. They represent a *status quo equilibrium*. However, when a triggering event happens, they do not return to the old system but jump. The transition path acts as an attractor for these jumps. The equilibrium is only stable in the *two steady states* at the start and end of the income scale.[12]

3.3 Theory (T1): Abundant oil resources change the dynamics of the three pillars model

The three pillars model works differently in very resource-rich countries, notably in oil countries, which were LDCs, with traditional political systems, when oil was found.

In the short run, oil only increases income, but gradually this causes changes in society. It may require half a century to reach the full effect. Think of human capital; even if the government of the oil country wants to expand human capital to fit to the new high-income level, it will take a handful of decades. Some papers explain the OPEC exception by the Dutch disease/resource curse theory.[13] This does not cover the enclave aspect of the oil sector.

Oil prospection and production are capital-intensive high-tech operations. Thus, a new oil sector in an LDC must rely on international technology and expatriate technicians, who often spend a few months only in the country and rarely speak the local language. Oil installations are expensive and highly explosive, so they are heavily fenced. Once oil is produced, it needs few workers. Thus, the oil sector becomes an *enclave* with few direct links to the rest of society. Other cases of abundant resources may have similar effects, but oil is extreme due to the large rents per worker employed.

The large effect is indirect. Oil produces resource rent that is easy to tax, so the king's treasury becomes awash with funds. Consequently, the economic power of the king rises.[14] In

[11] A set of statistical causality tests support this logic, *ibid*.

[12] The difference between the two equilibrium concepts is their reaction to a disturbance. If a status quo is disturbed (above a certain threshold) the system does not return as the status quo has ceased to exist, but if a steady state is disturbed, the system returns to the equilibrium (though it may take some time).

[13] The literature on *Dutch Disease* goes back Corden (1984). His analysis had the new oil production in Australia in mind. Here the resource sector was/is integrated in a modern economy. The term *resource curse* was the second coming of the Dutch Disease theory. Sachs and Warner (1995) introduced the modern version of the theory, see also Haber and Menaldo (2011). The ensuing discussion is surveyed by Ploeg (2011) and Paldam (2013). While the economics of the theory is well worked out, the political part is covered by fewer papers. The development of the economic system in the OPEC countries is analyzed in Paldam and Saadaoui (2025).

[14] When oil is found in countries with democratic control of the treasury, the resource rents support democracy, Aslaksen (2011).The link from oil wealth to royal power was already proposed by Huntington (1993).

the three pillars model, the royal pillar strengthens so much that the joint power of the three pillars increases. Hence, the transition comes to work in the reverse. Instead of changing society toward democracy, the political system becomes more authoritarian. Figure 6 below shows that the OPEC kernel looks precisely as that with a marked peak and a downturn as in Figure 1. The oil theory explains the peak as the point where the king becomes so rich as to control the country, and hence the country becomes more authoritarian. The average income of the non-OPEC Arab countries from 2000-2018 is about $ 8,500. The peak is 60% higher, and thus well ahead of where the countries would have been without oil.[15]

In addition, there is the Dutch disease effect already mentioned: The big inflow of foreign exchange causes the exchange rate to appreciate, and hence the non-oil sectors lose international competitiveness. This reduces employment, but the king can afford to subsidize his supporters. Thus, they become plentiful, and in some cases much of the population comes to rely on subsidies. In wealthy oil countries, most manual work is done by guest workers, so a domestic labor class does not develop. There is even an arrangement where the guest workers require a native sponsor (the kafala system), who taxes his workers, turning many natives into employment entrepreneurs.

3.4 Theory (T2). The institutional genes theory

Institutional genes is an encompassing term for the long roots of the *complex* of culture, religion, and institutions, including the administrative and legal systems. The term originates from a study of China (Xu, 2025) that provides abundant evidence showing that the present Chinese regime has deep roots into traditions built during the last couple of millenniums.

(T2) makes the same claim about the very different Muslim/Arab society. The term 'genes' implies that we are dealing with a deeply embedded complex of cultural, religious and institutional/legal traditions going back more than a millennium. It is difficult to point to the primary part of the complex, though researchers have tried. One attempt claims that it is the legal system; see La Porta et al. (2008). The traditional legal system (sharia) in the MENA region, is based on the scriptures of Islam, and thus it is secondary to the religion.

The second area in Economic Freedom index (from the Fraser Institute) is *quality of legal system and property rights protection*. Here the OMA countries do indeed score quite

[15] OPEC was started in 1960, but most of the countries were oil exporters before that, and some have been oil exporters only for some of the time covered. As shown in the Net Appendix it does not change the way Figure 1 looks if the data starts in 1950. Other papers in the author's project have estimated the curves for samples starting in 1960 or 1972. The curves are robust.

poorly; see Paldam and Saadaoui (2025). However, it is hard to imagine a strong and independent legal system in an authoritarian political system. It is almost a tautology that an absolute ruler and his associates are above the law.

Thus, the exogenous part of the complex forming the institutional genes of the MENA countries is the religion.[16] (T2) is the theory that the institutional genes are a barrier for democracy in the MENA region. This refers to two observations about the strong, old culture of the Arab/Muslim world.

(1) Many Muslims see the regime in Mecca at the time of the prophet Muhammed (ca 570-632) as an ideal. It was an oligarchy dominated by the largest trading families, though it is difficult to use modern terminology for such distant times. In addition to being considered the chosen spokesman of Allah, Muhammed was a big worldly success. He became successful in business, as a general, and as the leader of his town.[17] He started the military expansion that led to the big Arab-Muslim empire within a century of his death. Consequently, he is greatly admired. He was not a democratic ruler, and after his death his close associates started the tradition of khalifs in Islam.

(2) The sacred Quran does not recommend democracy,[18] as the term is understood today, though, once again, it is difficult to interpret words spoken so far ago. Today many orthodox Muslims reject democracy as part of the 'decadence' of the West.

Islam came from the Arab peninsular, and the prophet preached in high Arabic as used for serious conversation by the elite in his days. With some effort it is accessible to the modern Arab, and Muslims are urged to read it in the original. The other important source to tradition is the Hadith, which is a collection of stories describing the life of the prophet and his close associates. Together, these sources make the Arab people and their language central to Islam. Figure 6 below demonstrates that the Arab group has a lower *PV*-level than MENA in general.

The institutional genes theory does not explain the hump-shape, but only a general low level of democracy. The peak on the OMA curve is only explained by the oil theory. Section 3.5 uses these observations for prediction about the sub-group.

While the facts about the OMA exception are clear, the institutional genes theory poses the emotional question: Is Islam the explanation? As sketched above, the institutional genes

[16] The countries of the MENA/Arab group are all Muslim, though pockets of other religions survive in most of the countries, notably in Lebanon. These pockets are dwindling.

[17] This contrasts to Jesus, who was a poor itinerant preacher, who never had worldly success. He was even executed, and for the first 350 years Christianity was a religion of the poor and downtrodden.

[18] Muslims see the Quran as the words of Allah spoken by his prophet and immediately written down. Most Christians agree that the new testaments of the Bible are four narratives of the life and words of Jesus written half a century (or more) after his death. Thus, the text of the Quran is more sacred and less amenable to interpretations.

theory is not a theory with simple economic mechanisms. It hinges on traditions and cultural factors that may or may not have a basis in the Muslim theology, and thus, in the last resort, in the Quran and the Arab empire before the Ottoman and the western ones. The gulf separating the political systems of the West, and the Muslim world is a problem giving political tensions/-conflicts, even terrorism, and military interventions. Thus, there is a wish to talk the gulf down. Hence, the question asked may be reformulated; see Bayat (2007). Instead of asking why Muslim countries are so authoritarian, it asks if Islam and democracy are incompatible. To prove that Islam and democracy are compatible only needs a few examples of democracy in a Muslim country. Such cases do exist, but they are rare.

There is also micro evidence from polls where Muslims answers as nicely as other people to items about their preference for democracy; see e.g., the early survey by Inglehart (2002) and Hofmann (2004). Here the argument becomes a causal chain. Maybe certain cultural traditions – such as the strong control/protection of women – cause Arab countries to be so authoritarian. Then it becomes necessary to explain where these cultural traditions came from. I believe that most Muslims will say that they came from Islam, i.e., from the Quran and tradition, as described in the Hadith.

3.5 Theory (T3). The conflict proneness theory from the Arab project

A large *Arab project* at the American University in Beirut analyzed 'democratic transitions' in the Arab world. The project led to a couple of books, of which the latest is Elbadawi and Makdisi (2017).[19] It presents a handful of explanations and rejects most except three:

The project accepts (T1) the oil theory, plays down (T2) the institutional genes theory, and stresses (T3) conflict proneness. During the Ottoman Empire till 1918 and the period of European domination, where some countries were French colonies and others were under (more indirect) British control the region was peaceful. But after the countries became independent, they have had an unusual frequency of wars and civil wars.

This raises the complex question of causality: Are the conflicts due to the authoritarian regimes or vice versa as the Arab project claims? An old literature points to the peaceful nature of democracy, both internally and externally; see Gleditch (1992) for a fine survey going back

[19] The project notes that democracy indices are low and increase slowly in the Arab world: The project constructed a modernization variable dominated by income and, as above, showed that it did not work to predict democratization in the Arab world. Then the project turned to use the term transition for a change over time. Figure 2 demonstrated that there was a 40-year period from 1975 to 2014 where the political indices did rise, but the rise is relatively small, and it is dubious if the change is of a long-run nature. The project also demonstrates that the data for Arab countries contains substantial spatial correlation. Another survey from a political science perspective is Zouache (2025) stressing country differences.

to the literature of the 1960s.[20] The data does not allow a study of the causality in the income/ democracy/war nexus, so the argument comes to rest on the identification of exogenous events. The Arab project claims that the wars/civil wars are due to exogenous events.

The most important is the rise of Zionism. It started in central and eastern Europe at the end of the 19th century, grew due to the terrible events for the next fifty years, and led to the establishment of Israel in 1948, and the first Arab Israeli war.[21] This was surely exogenous to the MENA/Arab region. However, the conflict has remained since then and has caused 5-6 wars. Perhaps, they are mainly endogenous, as various regimes in the region have had strong political reasons to keep the conflict boiling. This also applies to Israel, which uses the conflicts to gradually acquire more of the land the Zionists dreamed about. With more peaceful political systems the conflict may have slowly decreased.[22]

The second is the rise (and fall?) of Jihadist ideology/movement in the MENA area, which has led to a handful of civil wars. It is likely that both endogenous and exogenous factors have caused that movement. In addition, there have been some wars between countries where various military strongmen have tried to expand their country, much as happened in Europe before democracy became the dominating political system.

Below it is assumed that the endogenous factors are stronger, at least after 1950. The rest of the paper will use (T1) the oil theory, and (T2) the institutional genes theory but disregard (T3) conflict proneness.

3.6 Two theories, three sub-groups, and three predictions

The theories lead to three (new) predictions about the sub-groups:

OPEC-only sub-group: The eight countries export oil but are outside the MENA area – most are not Muslim. They are so far from the MENA/Arab countries that spatial effects are unlikely. Hence, only (T1) the oil theory should work. *Prediction:* It should have a hump and a *PV*-level between the Main and the OMA-levels.

MENA-only sub-group 2: The eight countries are Muslim but have no oil, and only one is not Arab (Turkey). Here only (T2) the institutional genes theory should work. All are close

[20] Fukuyama (1992) is a book-length (controversial) bestseller that makes the same point. It predicts 'the end of history,' when everybody has turned into wealthy democracies!

[21] When all series are started in 1950 or in 1960, the curves do not change.

[22] The Israeli declaration of independence (from UK) in 1948 and the first Arab Israeli war led to a large exchange of population between the new state of Israel and the Arab world, as Arabs left/were pushed out of Israel, and Jews left/were pushed out of the Arab countries and came to Israel. The oriental Jews were gradually absorbed in their new country, but many of the Palestinians came to stay in refugee camps waiting for a return to their motherland while growing increasingly bitter. Since then, much has happened to deepen that bitterness.

to oil countries. Thus, spatial effects are likely. *Prediction:* It should have no peak and a *PV*-level between the Main and the OMA-level. If the effects of both theories are of equal strength, the MENA-only curve should be below the OPEC-only curve due to spatial effects.

Overlap sub-group: The ten countries that are both MENA and OPEC, and only one is not Arab (Iran). Thus, it should show the effect of both theories (T1) and (T2) working together. *Prediction:* It should have a *PV*-level below the OMA-level.

The three predictions are analyzed by two techniques: Section 4 uses OLS regressions with binary dummies for the groups and sub-groups. They show average effect-sizes for the two theories. Section 5 reports kernel regressions for the groups and sub-groups. They show that the paths for the groups and sub-groups have a pattern precisely as predicted.

4. The results from linear tools

Income series are close to linear while democracy indices are defined on limited intervals, so the standard regression tools are dubious for the purpose, but they are rather robust and often used in democratization studies. In addition, Figure 1 showed that the OMA curve is hump shaped. Section 5 uses the nonlinear tool of kernel regressions. It is reassuring that the results tally, even when section 5 gives additional information.

4.1 The correlation between income and the two democracy indices

Table 1 reports correlations between *PV* and *y* for the groups and sub-groups. Figure 4 showed that the distributions of the *PV* data are far from normal. Therefore, the Pearson correlation, r, is supplemented with, ρ, Spearman's rank correlation. The polyarchy correlations are larger than the polity correlations indicating that polyarchy has a stronger upward trend than polity. This was already visible in Figure 1.

Row (A) for the Main sample shows that the 10,583 observations from 130 countries have the correlations between polity and income of r = 0.58 and ρ = 0.61, much as predicted from Figure 1. In the same line polyarchy and income have correlations r = 0.71 and ρ = 0.65. Row (B) for the OMA sample reports the same correlations for the 1,749 observations from 26 countries. As expected, the correlations are negative and (numerically) much smaller.

Rows (i) to (iii) show the pattern across the groups, while rows (1) to (3) consider the sub-groups. Rows (1) to (3) confirm the predictions from section 3.6 for the three sub-groups: OPEC-only and (2) for the MENA-only groups have positive correlations, but they are smaller than in the Main group. Row (3) for Overlap is the lowest as predicted

Table 1. The number of observations and correlations to *y* in groups and sub-groups

	Group or Sub-group	Number of Countries	*N*	Polity r(P, y)	Polity ρ(P, y)	Polyarchy r(V, y)	Polyarchy ρ(V, y)
(A)	Main	130	10,583	0.581	0.609	0.705	0.647
(B)	OMA	26	1,749	-0.048	-0.126	0.103	0.088
(i)	OPEC	18	1,224	-0.128	-0.253	0.039	-0.020
(ii)	MENA	18	1,107	-0.123	-0.196	0.002	-0.023
(iii)	Arab	16	940	-0.142	-0.229	-0.016	-0.054
(1)	OPEC-only	8	642	0.386	0.321	0.535	0.492
(2)	MENA-only	8	525	0.339	0.307	0.527	0.501
(3)	Overlap	10	582	-0.128	-0.156	0.079	0.023

The two coefficients of correlation are the standard (Person's) **r**, and Spearman's rank correlation **ρ**. The two correlations are close in samples of normally distributed data, but they differ as democracy indices are non-normal.

Table 2. Comparing factor analyses for four groups

Groups Observations	(A) Main *N* = 10,677		(i) OPEC *N* = 1,213		(ii) MENA *N* = 1,094		(iii) Arab *N* = 932	
	Factor1	Factor2	Factor1	Factor2	Factor1	Factor2	Factor1	Factor2
Eigenvalue	2.17	0.06	1.68	0.17	1.52	0.07	1.41	0.06
Variable	Factor loading		Factor loadings		Factor loadings		Factor loadings	
P, polity	0.87	-0.12	0.92	-0.11	0.87	-0.05	0.84	-0.04
V, polyarchy	0.93	-0.02	0.91	0.10	0.87	0.08	0.83	0.07
y, income	0.73	0.15	-0.05	0.36	-0.08	0.24	-0.10	0.23
g, growth	0.09	0.15	-0.07	0.10	0.00	0.04	-0.02	0.04

The factor analyses report two factors. Factor2 has always very small eigenvalues, so it is of no consequence.

Table 2 is a factor analysis of the groups. It adds an important point: Only Factor1 matters. While income belongs to this factor in the Main sample, it does not belong in any of the three OMA samples. Growth is irrelevant in all samples.

4.2 OLS regressions with binary group dummies

Tables 3 and 4 have almost the same format. Parts A are for the polity index, and parts B are for the polyarchy index. The two parts report the same 6 regressions for the two democracy indices. The t-ratios are very large thanks to the large number of observations.

Table 3. The three groups, all *N* = 12,332 observations

Relation estimated: $PV = Constant + a_1 Income + a_2 OMA + a_3 Group + u$

	Part A. Polity, *P*						Explained	
	Constant	*Income*	*B. OMA*	*i. OPEC*	*ii. MENA*	*iii. Arab*	aR^2	ΔaR^2
(1)	-25.6 (-55)	3.13 (58)					0.211	Basis
(2)	-26.5 (-62)	3.35 (66)	-6.99 (-45)				0.322	0.110
(3)	-26.7 (-62)	3.38 (67)	-5.23 (-20)	-2.52 (-8)			0.325	0.114
(4)	-27.4 (-64)	3.46 (69)	-3.27 (-14)		-5.92 (-20)		0.343	0.132
(5)	-27.7 (-66)	3.49 (70)	-3.27 (-15)			-7.00 (-25)	0.354	0.142
(6)	-28.8 (-69)	3.62 (73)	3.99 (9)	-7.25 (-21)	-4.33 (-8)	-6.05 (-12)	0.375	0.164
	Part B. Polyarchy, *V*						Explained	
(1)	-0.87 (-56)	0.150 (81)					0.349	Basis
(2)	-0.91 (-63)	0.158 (94)	-0.263 (-51)				0.460	0.112
(3)	-0.92 (-64)	0.159 (95)	-0.198 (-22)	-0.093 (-9)			0.464	0.115
(4)	-0.94 (-67)	0.162 (95)	-0.128 (-16)		-0.215 (-22)		0.481	0.132
(5)	-0.95 (-67)	0.163 (98)	-0.139 (-19)			-0.236 (-25)	0.487	0.138
(6))	-0.99 (-71)	0.168 (103)	0.142 (10)	-0.269 (-23)	-0.209 (-12)	-0.162 (-10)	0.508	0.160

Table 3 uses binary dummies for the groups, and in Table 4 they are for the sub-groups. They are one if the country is in the group, and zero otherwise. Numbers in parenthesis are t-ratios – above 5 they are rounded to the nearest integer. The aR^2 is the adjusted R^2. The ΔaR^2 says how much the aR^2 increases compared to the basis. The number of observations for the groups is reported in Table A.

Table 3 analyzes the effects of the groups. Regression (1) shows how much income explains. Regressions (2) show the pure effect of the OMA dummy. It is substantial, negative, and increases the effect of income. Regressions (3) to (5) and (9) to (11) analyze if the three parts of the nexus contribute to the explanation of the OMA-variable. All three do, as seen from the aR^2 scores. They also increase the effect of income, while the effect of the OMA variable is reduced as it should. The change from regression (2) to (3) and from (8) to (9) only increases the fit marginally. Both MENA and especially Arab gives a larger contribution. Rows (6) and (12), include all three parts of the nexus. Here the coefficient on OMA even becomes positive, due to multicollinearity. OPEC gets the strongest coefficient, and the sum of the change in the coefficient to OMA equals the coefficient to OPEC, so OMA and OPEC have almost the same effect, but still MENA and especially Arab add something to reduce the effect of OMA.

Table 4. The three sub-groups, all observations, using the same relation

	Part A. Polity, *P*						Explained	
	Constant	*Income*	*B. OMA*	*1. OPEC-only*	*2. MENA-only*	*3. Overlap*	aR^2	ΔaR^2
(1)	-25.3 (-55)	3.11 (57)		-2.46 (-9)			0.217	Basis
(2)	-27.4 (-64)	3.46 (69)	-9.20 (-49)	5.92 (20)			0.343	0.126
(3)	-25.4 (-55)	3.13 (58)			-4.42 (-15)		0.226	Basis
(4)	-26.7 (-62)	3.38 (67)	-7.75 (-43)		2.52 (8)		0.325	0.099
(5)	-29.1 (-68)	3.61 (71)				-12.50 (-49)	0.338	Basis
(6)	-28.6 (-68)	3.60 (72)	-4.15 (-23)			-8.75 (-29)	0.366	0.028
	Part B. Polyarchy, *V*						Explained	
(1)	-0.86 (-55)	0.149 (81)		-0.097 (-11)			0.355	Basis
(2)	-0.94 (-67)	0.162 (98)	-0.343 (-55)	0.215 (22)			0.481	0.126
(3)	-0.87 (-56)	0.150 (82)			-0.168 (-17)		0.364	Basis
(4)	-0.92 (-64)	0.159 (95)	-0.159 (-27)		0.093 (9)		0.464	0.100
(5)	-1.00 (-70)	0.168 (99)				-0.463 (-54)	0.473	Basis
(6)	-0.98 (-71)	0.167 (102)	-0.159 (-27)			-0.319 (-32)	0.503	0.029

Table 4 analyzes the effects of the sub-groups. The pattern for the OPEC-only and MENA-only are similar. Without the OMA variable, the effect is negative, but when it is included the effect changes to be positive. This means that the *PV*-levels in the two groups are between the Main group and the OMA-group. The MENA-only effect is stronger than the OPEC-only effect, indicating that the institutional genes are stronger than the oil mechanism, but the difference may not be significant given that the spatial effect from the Overlap group is likely for the MENA-only countries, but not for the OPEC-only countries.

The Net-Appendix studies the effects of the two non-Arab MENA countries, Iran and

Turkey, when binary country dummies for the two countries are added to the relevant models in Tables 3 and 4. While the effect of Iran is negligible, there is a small effect of Turkey as seen on Figure 6.

The Overlap is very negative without the OMA-variable and remains negative when the OMA-variable is included. Consequently, both oil and Muslim-Arab genes give more authoritarian regimes. When they are combined in Overlap, the effect doubles as predicted.

Table 5. The fraction of observations after the peak for $y = 9.4$ in the five groups

Group or Sub-group	Number of Countries	*N*	Both indices After peak	In %
i. OPEC	18	1,224	332	27.1
ii. MENA	18	1,107	276	24.9
iii. Arab	16	940	240	26.4
1. OPEC-only	8	642	77	12.0
2. MENA-only	8	525	21	4.0
3. Overlap	10	582	255	43.8

Table 5 is to analyze the problems caused by the linearization. On Figure 1 the path of the two OMA curves was hump shaped. Before the peak, the slope is positive and after it is negative. The linear tools in section 4 gave averages over the observations for the whole scale. Consider the same hump-shaped curve. If most observations are in the positive part before the hump, it will dominate the linear estimate of the slope so that it becomes positive, but if most observations are after the hump the slope will be negative. Table 5 reports the fraction of observations after the peak. The low fraction in the MENA-only sub-sample will play a role below.

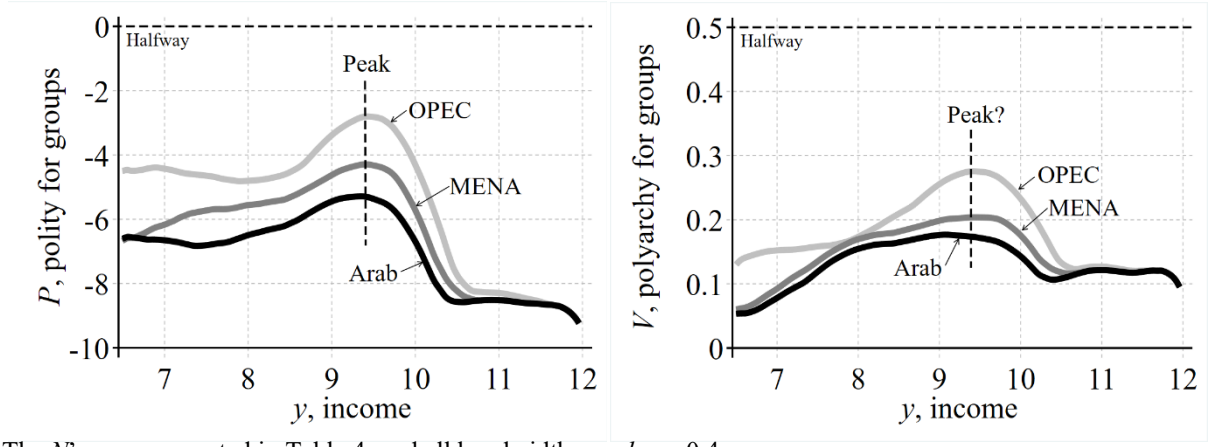
5. Studying the functional form with kernel regressions

5.1 The kernels for the three groups: OPEC, MENA, and Arab

Figure 6 shows kernel-curves for OPEC, MENA, and Arab. The curves are all below the middle of the regime scales, i.e., they are in the autocracy range. The three curves have the same form for polity, but for polyarchy the MENA and Arab curves have a flatter form with a less clear peak. The *PV* levels differ, so that it is highest for the OPEC curve. The middle curve is the MENA curve, while the Arab curve is the lowest, despite the great overlap to the MENA curve. The difference is due to Turkey.

Figure 6. Kernel regressions for the three groups and the two *PV* indices

Figure 6a. Polity $K^P(y, 0.4)$ Figure 6b. Polyarchy $K^V(y, 0.4)$



The *N*'s are as reported in Table 4, and all bandwidths are *bw* = 0.4.

All these curves look like the OMA curves in Figure 1. The curves are non-linear, showing a clear peak in the middle, but on average the slopes on Figure 6a for polity are negative, as also found in Table 3. The slopes are less clear on Figure 6b for polyarchy. The peak on the curves is at $y = 9.4$, which is about $ 12,000. The countries in the three groups overlap substantially. The next section turns to the non-overlapping sub-groups, where the curves differ much more.

5.2 Kernels for the three sub-groups: OPEC-only, MENA-only, and Overlap

Figure 7 shows the kernels for the three sub-groups. The two dashed gray curves are the Main and the OMA curves from Figure 1. The three times two solid curves are for the sub-groups – hence they are new. When interpreting these curves, the reader should recall the three

predictions in section 3.6. The Net Appendix shows the confidence intervals and the robustness of the curves. For each of the 2 *x* 3 curves, a *bundle* of kernels is estimated, by deleting every country and recalculating the kernel. The six bundles have some variation, but the average pattern is robust. The curves for the two *PV*-indices are so similar that they will be discussed together.

Figure 7. Kernel regressions for the three sub-groups and two *PV* indices

Figure 7a. Polity
$K^P(y, 0.4)$

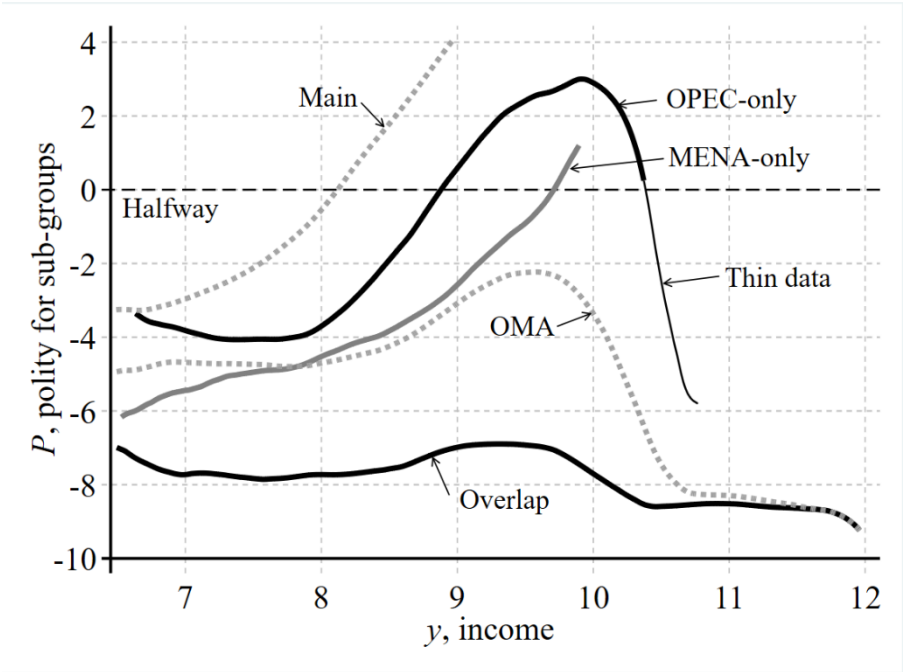
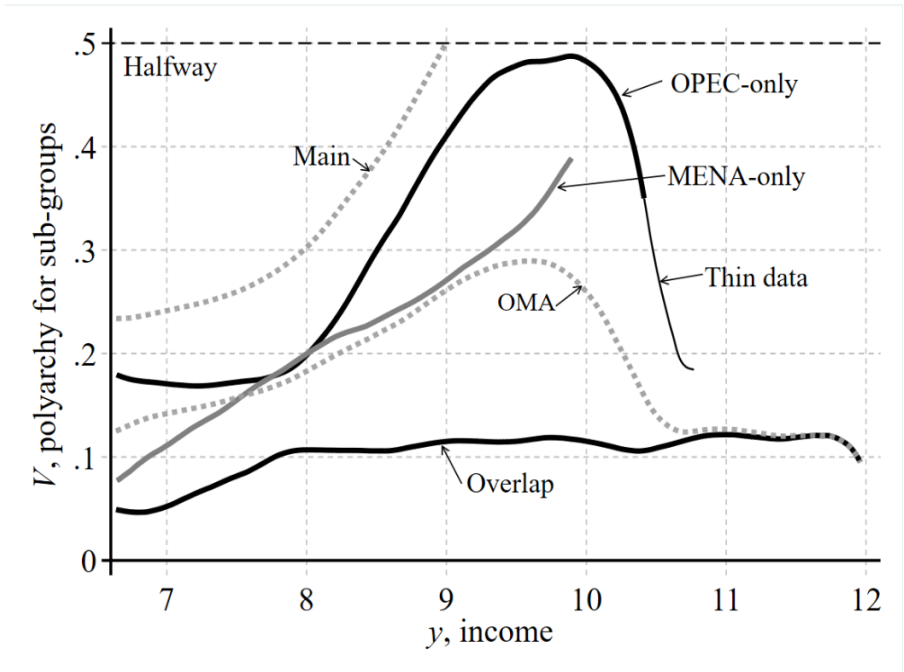


Figure 7b. Polyarchy.
$K^V(y, 0.4)$



Sub-group 1: The ***OPEC-only*** curve is for the eight countries outside the MENA area. It analyzes the pure oil-effect (T1). It is between the main and the OMA curves. It is the highest of the three sub-group curves, and for the polity index it even extends into the democratic region of the graph. Thus, the countries may have been on the transition path, but then the oil effect sets in and generates a hump shape. As mentioned, the short-run effect of oil is only that income increases so that the curves shift to the right, while society remains the same. Thus, the OPEC-only curve may be on the Main curve at the start, but then the oil mechanism causes the curve to turn down. It has a positive slope for most of the path as expected from Table 3.

The curves for the other sub-groups contain the effect of the Muslim-Arab institutional genes. The curves are all lower, so a clear effect appears as expected.

Sub-group 2: The ***MENA-only*** curve is for eight MENA countries without oil. To interpret the curve requires the institutional genes theory (T2). As predicted, it has no peak. Table 4 shows that it has only 4% observations above the peak, so even if it had a peak, it would be hard to see. It has a positive slope throughout as expected from Table 1. The curve is between the Main and the OMA curves. Thus, the main point to note by comparing with Figure 1 is that the rising path is well below the one in the Main sample. The MENA-only shows the transition in non-oil Muslim/Arab countries. At the income $y = 9$, it is 7 polity points and 0.23 polyarchy points below the Main curve. It certainly speaks of a large effect. An optimistic interpretation of this curve is that it shows a delayed and slower democratic transition, perhaps the delay is due to the spatial effects from the neighboring OPEC countries.

Sub-group 3: The ***Overlap*** curve is for countries that are both OPEC and Muslim, so both theories work. As expected, it is the lowest curve, well below the OMA curve. The richest oil countries are in Overlap, so the data for OMA and Overlap melt together at high incomes.

The three predictions made in section 3.6 are thus confirmed. They were derived from the two theories (T1) and (T2) and indicate that the two theories are true.

The difference between the three curves for the sub-groups explains the relatively wide confidence intervals of the kernel curve for the full OMA sample. It will be interesting to study how the OPEC-only and MENA-only curves develop when income increases in the future. If the MENA-only curve keeps rising, the two curves will diverge, but as of now this is not clear.

6. Conclusions

This paper looks for theories that can explain why the OMA group of OPEC/MENA/Arab countries have no democratic transition. When income grows, the missing transition gives a widening gap between the political system in the Main group of countries and in the OMA group. At least two theories (T1) and (T2) explain the low level of democracy in the OMA countries. They are both needed to explain the full picture: [23]

(T1) The *oil theory* explains why the transition in the OPEC countries has a hump shape. The path of the democracy indices starts as everywhere else, but when income increases the indices turn and the political system becomes more authoritarian. The top of the hump happens where the ruler becomes so rich as to be able to control the country. This theory also works on the OPEC countries outside the MENA region.

(T2) The *institutional genes theory* claims that the MENA region has a complex of cultural, religious and institutional/legal traditions going back more than a millennium. These "genes" include a tradition for autocracy. One may point to different parts of the complex as the crucial one. It appears that Islam is the glue keeping the complex together. This theory does not explain the hump shape, but then there is no hump in the MENA countries without oil.

It supports this analysis that the most authoritarian countries in the OMA-group are the ones that are both in OPEC and in MENA.

Two remarks should be added: (1) The empirical analysis of the Main sample (elsewhere) uses large data sets and reaches strong conclusions. This paper uses much fewer observations, with spatial effects, so the conclusions are less strong. (2) One may argue that the OMA exception is of a temporary nature only, and that the (failed) Arab Spring was a first attempt to move the MENA group closer to the Main one. Other regions have experienced several such waves (think of 1830 and 1948 in Europe) before they succeeded, so one may hope. However, the Arab world has also seen waves of violent reaction. At present there is no clear trend toward system changes.

[23] The two theories can explain the OMA exception, but this does not necessarily mean that other theories do not contribute. One extra possibility is (T3) the conflict proneness theory for the MENA region.

Sources and two net-papers with documentation:

Papers of the author are (also) posted on: http://www.martin.paldam.dk/GT-Main2.php

Maddison project, source of *gdp, y,* and *g*. https://www.ggdc.net/maddison/maddison-project/home.htm

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[24] *Ibid* refers to Paldam (2021, 2024 and 2025).

Appendix: Tables A and B

This appendix is for easy reference. Table A lists transition terms, variables and the kernel terminology, samples and their dimensions as well as the three groups and the three sub-groups. Table B lists the countries in the three non-overlapping sub-groups. Table A explains how the sub-groups add to the groups.

Table A. Terminology, variables, samples, three groups, and three sub-groups

Part 1 terminology for transitions.				
Steady state	Growth equilibrium. Everything grows at the same rate, so all ratios are constant			
Traditional	Steady state of all countries before 1750 and low-income countries (LICs) until recently			
Modern	Steady state of high-income countries today (HICs), with the OPEC exception			
Transition	Change diverging from the traditional steady state and later converging to the modern one			
Part 2 Variables and kernel terminology				
PV	Two indices for the political system. From the Polity and V-Dem projects, see references			
P	*Polity*(2). Scale: Integers in the closed interval [-10, 10], from authoritarian to democratic			
V	*Polyarchy.* Scale: 2-3 decimals in the open interval]0, 1[, from authoritarian to democratic			
GDP	Gross Domestic Product, in fixed PPP, purchasing power parity, prices			
gdp	GDP per capita in fixed 2011 US$. From the Maddison Project, see references			
y	*Income*, the natural logarithm to *gdp*. One logarithmic point is a *gdp* change of 2.72 times			
$K^x(y, bw)$	Kernel regression of the relation $x = x(y)$, *bw* is bandwidth. Used for Figures 1, 2, 3, 6, and 7			
Part 3a. Samples discussed. Unified panel data. For 1800-2018, see Figures 1 and 3				
Sample	*Nc*	*N*		Reference
(A) Main	130	10,583	For comparison only	Paldam (2021, 2025)
(B) OMA	26	1,749	The data analyzed in the paper	Table B
Part 3b. Alternative samples. Used in section 2.3 only				
Non-Muslim	112	9,891	See section 2.3	Figure 3
Muslim	44	2,441		
Part 4. **The three groups and three sub-groups** of the OMA sample Table B lists the countries				
	Nc	*N*	Groups overlap, while sub-groups are exclusive	Figure
Group i	18	1,224	OPEC, Organization of Petroleum Exporters. Sub-groups 1 and 3	6
Group ii	18	1,107	MENA, Middle East and North Africa. Sub-groups 2 and 3	6
Group iii	16	940	Arab, the MENA countries except Iran and Turkey	6
Sub-group 1	8	642	OPEC-only, OPEC but not MENA, Table B top section	7
Sub-group 2	8	525	MENA-only, MENA but not OPEC, Table B middle section	7
Sub-group 3	10	582	Overlap, both OPEC and MENA, Table B bottom section	7

The samples are limited to observation for formally independent countries, where all variables have data, i.e., observations where polity is zero are omitted. Bahrain and Oman are added to the OPEC group, as they are close. ***Nc*** is the number of countries and ***N*** is the number of observations.

Table B. The 26 OMA countries divided into three non-overlapping sub-groups

			Muslim	Polity, *P*			Polyarchy, *V*		
Nr	Country	Group	Majority	*N*	Span	Start	*N*	Span	Start
	Sub-group 1: The OPEC-only group. The OPEC group is sub-groups 1 and 3.								
1	Angola	Africa	No	44	44	1975	44	44	1975
2	Congo Br	Africa	No	59	59	1960	59	59	1960
3	Ecuador	La Am	No	120	149	1870	122	149	1870
4	Equ. Guinea	Africa	No	51	51	1968	51	51	1968
5	Gabon	Africa	No	59	59	1960	59	59	1960
6	Indonesia	Asia	Yes	63	70	1949	70	70	1949
7	Nigeria	Africa	?	58	59	1960	59	59	1960
8	Venezuela	La Am	No	189	189	1819	190	200	1819
	Sub-group 2: The MENA-only group. The MENA group is sub-groups 2 and 3.								
1	Egypt	Arab	Yes	69	69	1850	72	199	1820
2	Jordan	Arab	Yes	66	66	1953	66	66	1953
3	Lebanon	Arab	Yes but	39	69	1950	69	69	1950
4	Morocco	Arab	Yes	66	199	1820	66	199	1820
5	Syria	Arab	Yes	66	69	1950	69	69	1950
6	Tunesia	Arab	Yes	60	60	1959	63	63	1956
7	Turkey	No Arab	Yes	99	100	1820	100	199	1820
8	Yemen	Arab	Yes	60	69	1950	69	69	1950
	Sub-group 3. Overlap. Included in both the OPEC and MENA groups								
1	Algeria	Arab	Yes	57	57	1962	57	57	1962
2	Bahrain	Arab	Yes	48	48	1971	48	48	1971
4	Iran	No Arab	Yes	70	199	1820	70	149	1820
3	Iraq	Arab	Yes	62	69	1950	69	69	1950
4	Kuwait	Arab	Yes	55	56	1963	69	69	1950
6	Libya	Arab	Yes	60	68	1951	68	68	1951
7	Oman	Arab	Yes	69	69	1950	69	69	1950
8	Qatar	Arab	Yes	48	48	1971	48	48	1971
9	Saudi Arabia	Arab	Yes	69	69	1950	72	196	1823
10	UAE	Arab	Yes	46	48	1971	46	48	1971

The gray shading is for the countries without a Muslim majority, where Nigeria is a borderline case. The two non-Arab MENA countries Iran and Turkey are classified as *No Arab*. Both countries have had a long period of secularization, but now Iran is a Muslim theocracy. The League of Arab States includes Comoros, Djibouti, Mauritania, Somalia, and Sudan. These borderline countries are not included in the present analysis. The League also includes Palestine, which is excluded as it is not (yet?) an independent country.

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All data used is in the public domain and also available on demand.