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Regional development and national identity in sub-Saharan Africa

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We study how regional development affects identification with the nation state using a sample of 192 African regions in 16 countries. We measure national identification with survey data from the fourth wave of the Afrobarometer and proxy regional development with night lights data. To account for the endogeneity of regional development, we employ an instrumental variables approach and use a proxy for mineral resource wealth as our main instrument. Our results show that inhabitants of more prosperous regions are more likely to identify with their nation rather than their ethnic group. Regarding transmission channels, we find suggestive evidence consistent with the interpretation that national identification is higher in richer regions because of different cultural beliefs and a lower reliance on traditional ethnic networks. Overall, our research implies that African governments can foster national identification by ensuring that all parts of a country participate equitably in economic development. *Journal of Comparative Economics* **000** () (2016) 1–22. University of Gothenburg, Gothenburg, Sweden; University of Siegen, Hölderlinstr. 3, 57076 Siegen, Germany.

1. Introduction

When the concept of the nation state started to influence politics in the late 18th century, it was primarily used to restrict the political power of the ruling nobility. According to its proponents, the state was to reflect the wishes of "the people" rather than those of a narrow elite. Today, however, the nation state tends to be defined not in opposition to some feudal regime, but by whether the inhabitants of a country share a universal identity – by whether they agree to be part of a larger political unit that transcends ethnic and regional identities (Breuilly, 2013; Hobsbawn, 1990).

This focus on a common identity is understandable in a world where most countries are ethnically fragmented. Without an overarching identity, many countries would arguably struggle to maintain an acceptable level of political stability. Lack of a national identity has thus been identified as one of the major problems that many developing countries have to confront today (Collier, 2009). Yet, despite the perceived importance of the idea of nationhood, it is poorly understood how economic factors relate to an individual's propensity to supplant her regional or ethnic heritage with a new overarching identity.

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We study in this paper how regional economic development relates to the strength of national identification. The specific question we ask is whether people living in richer regions of a country are more likely to consider themselves as part of the nation at large or whether they instead strive to maintain their ethnic identities.

On the one hand, individuals living in poorer regions may feel neglected or discriminated against by the national government. As one possible reaction to such grievances, they may begin to emphasize their ethnic identities, possibly to such an extent that they abate political violence (Arnson and Zartman, 2005). On the other hand, there are famous examples where especially the (potentially) wealthier parts of a country are particularly adamant about retaining their ethnic identities, for example Catalonia in Spain or Scotland in the United Kingdom (Collier and Hoeffler, 2005).[1] Moreover, standard models of country formation and dissolution in Economics predict that richer regions will be more secessionist as it is they which are disadvantaged by any inter-regional redistribution (Bolton and Roland, 1997).

Against the backdrop of such theoretical and anecdotal ambiguity, we explore how regional wealth is related to national identity in sub-Saharan Africa. This part of the world is a compelling context to study this question because of its highly fragmented ethnic landscape and vast differences in regional development. Moreover, the question of nation building is particularly salient in African countries given the widespread ethnic cleavages, and thus our research has also practical relevance (Bandyopadhyay and Green, 2013).

A further advantage of the African setting is that consistent survey data on national vs. ethnic identification is available from the Afrobarometer for a relatively large number of countries. Our sample thus covers altogether 192 regions in 16 African nations.[2] However, one potential disadvantage of the African setting is that the quality of official GDP data, especially at the subnational level, is questionable (if data are available at all) due to low statistical capacity (Jerven, 2013). We address this problem by relying on night light output as measured by orbital satellites, which is arguably a reasonable and objective proxy for regional income levels (Chen and Nordhaus, 2011; Henderson et al., 2012).

To address concerns about omitted variables bias, reverse causality, and measurement error, we implement an instrumental variables approach. As instrument for regional development, we use a proxy for mineral resources wealth. Mineral resource wealth is a reasonable instrument because, first, it is theoretically plausible that regional prosperity is positively related to the availability of mineral resources. We also show empirically that there is a strong relationship between night light output and our proxy for mineral resources.[3] Second, mineral resource wealth, in principle, fulfills the exclusion restriction as the availability of mineral resources should not have any direct effect on national identification. That is, while natural resources have been linked to the outbreak of conflicts and thus arguably to the salience of ethnic identities (Berman et al., 2014; Ross, 2004a, 2004b), it is plausible that such links only materialize because natural resources imply (potentially) higher incomes, not because natural resources per se have an effect on ethnic identification (that is conflicts are endogenous to national identification). Third, mineral resources should not be correlated with the error term as their presence in a region is plausibly not influenced by the degree of national identification. Similarly, there are also no obvious variables that would be systematically correlated with both mineral resources and national identification.

However, while mineral resource wealth as such is plausibly exogenous, our proxy relies on actual mineral resource extraction (i.e. the number of active facilities). The exogeneity assumption is less plausible for mineral resource activity as regions that are richer or voice a higher national identity and thus have more state capacity may also see more resource extraction. We address this concern in a robustness test by relying on a second instrument to calculate an overidentification test. Furthermore, to deal with potential violations of the exclusion restriction and to evaluate the susceptibility of the baseline estimates to this particular problem, we also report results from a robustness test using the "plausibly exogenous" approach by Conley et al. (2012).

Overall, our results document that individuals living in more prosperous regions of a country identify more with their nation relative to their ethnic group. This result remains robust in several robustness tests, including the inclusion of ethnic group fixed effects and regional controls. We also find that the effect is robust to controlling for several characteristics of respondents, suggesting that national identification is positively correlated with regional development even among individuals who belong to the same ethnic group and have similar levels of e.g. education and income.

These findings are interesting because they document that within Africa, regional prosperity increases identification with the nation state. They hence contradict standard economic theories on country formation and secession, specifically the literature on the break-up of nations, which suggest that inhabitants of richer regions tend to be more in favor of separation because they are wary of inter-regional redistribution.[4] Since our results imply that traditional models may not accurately

[1] While Scotland is currently not richer than England according to official GDP figures, the existence of large oil and gas reserves within Scottish waters and the ensuing potential for natural resource wealth is arguably one major impetus for the recent secessionist movement.

[2] Benin, Botswana, Burkina Faso, Ghana, Kenya, Liberia, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia. The full number of regions in the fourth wave of the Afrobarometer is 246—and thus larger than 192, but we lose some regions because we omit four countries from the sample for various reasons (see below), due to missing observations in the outcome variables in some regions, and because of a higher regional aggregation in our GIS data than in the Afrobarometer for some countries.

[3] Thus, our first stage estimates are consistent with the findings in Henderson et al. (2012) regarding the effect of gemstones on regional development. More specifically, they show that in Madagascar, the discovery of sapphires and rubies had positive effects on subsequent night lights in the relevant regions.

[4] Our results also offer a contrast to recent research on the link between regional inequality and the incidence of conflicts. Deiwiks et al. (2012) and Lessmann (2013) find that both very poor and very rich regions are more likely to experience conflicts. We do not find such inversely U-shaped relationships, but rather that very poor regions are less and very rich regions are more likely to voice a national identity.