Household Finance at the Origin: Home Ownership as a Cultural Heritage from Agriculture

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Abstract

I show that home ownership decisions across countries and individuals are shaped by a cultural heritage from agriculture. For centuries, dominant assets in pre-industrial economies were either land or cattle. Consequently, the type of farming prevailing locally shaped preferences and believes about the relative value of immovable and movable assets. This cultural heritage had long-lasting consequences. Today, individuals originating from societies with a history of crop agriculture – where the dominant asset was land – are more likely to be homeowners. For identification, I rely both on home ownership decisions of second-generation immigrants in the US and on an instrument.

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I. Introduction

For centuries, pre-industrial societies were dominated by two main types of assets: land or cattle. Both were thought of respectively as leading types of immovable and movable assets. Both produced cultures, myths, representations, and systems of political power based on them. There were "land-based" societies (such as feudal Europe) and "cattle-based" societies (such as many East African societies), depending on the type of farming that was locally dominant.

In this paper, I provide causal evidence of a *cultural heritage from agriculture*. My main hypothesis is that individuals from societies traditionally dominated by crop agriculture – in which the main asset was land and immovable assets were thus relatively better considered – are still inclined to desire immovable assets relatively more, and are thus more likely to be home owners. I confirm that this cultural heritage can explain an economically meaningful part of the persisting variation in home ownership rates across countries, regions and individuals.

To justify this hypothesis, I start by providing ethnographic evidence that societies in which the dominant form of farming was based either on land or on cattle often produced a whole culture around these assets. I additionally show that people living primarily out of either cropland or cattle respectively developed more land-related and cattle-related motifs in their local folklore and mythologies. This cultural background can be seen as providing individuals with preferences and believes about the relative value or "safety" of immovable or movable assets. Theoretically, such cultural backgrounds can display high persistence from one generation to the next, even in the face of a changing environment (Bisin and Verdier, 2000, 2001).

Empirically, I start by showing that cross-country home ownership patterns in the OECD – the largest dataset in which measurement is similar across countries – are consistent with my hypothesis. I measure the historical prevalence of crop agriculture with data on land use: for every country, I construct a continuous variable, called *CropShare*, which measures the relative importance of cropland and pasture areas on average over the period from 1800 to 2010. In the OECD sample, I find an economically large effect: a one standard-deviation increase in *CropShare* is associated with an increase in home ownership rate of about 6 percentage points, which amounts to one half of the cross-country standard deviation (equal to 0.120). To establish the robustness of this stylized fact, I repeat the same analysis in a sample of 253 European regions. In regressions with country fixed effects, I confirm that, after holding country-level institutions fixed, regions with a history of crop agriculture have significantly higher home ownership rates.

While consistent with my hypothesis, cross-country and cross-region regressions cannot be given a causal interpretation. The main concern is that countries or regions differ along many other dimensions, including institutions (Osili and Paulson, 2008), experiences (Malmendier and Wellsjo, 2024), or demographic and financial characteristics that are conducive to home ownership. To the extent these institutions, experiences and characteristics could systematically correlate with an heritage of either land-based or cattle-based agriculture, they would be a concern for inference. A key identification challenge is to isolate a specific role of culture – and more specifically of a cultural heritage from agriculture.

To address these challenges, I use the so-called "epidemiological approach" pioneered by Fernandez and Fogli (2009) (see Fernandez, 2011, for a survey). The idea is to “fix” institutions and experiences – that is, to focus on within-country variation – and to study decisions by individuals with heterogeneous cultural backgrounds. Specifically, I study the home ownership decisions of second-generation immigrants in the US, that is, individuals born in the US but whose both parents are born abroad. As opposed to first-generation immigrants, who have been directly exposed to the institutions or to experiences in their country of origin, second-generation immigrants have only been indirectly exposed to countries of origin via cultural transmission. They grew up under similar institutions and faced identical macroeconomic experiences. I use data from the March Supplement of the Current Population Survey, which is currently the only dataset in the US in which respondents are asked about the country of birth of their parents.

Across a variety of specifications, I confirm that individuals whose parents migrated from countries historically dominated by crop agriculture – in which culture developed around immovable assets – are significantly more likely to be home owners. This holds after including several fixed effects and controls for standard determinants of home ownership. In addition to demographic controls, I explicitly control for financial factors that may facilitate the purchase of a home: I control for the household’s income and for the average GDP per capita in the parents’ countries of origin.

While these results causally identify a persistent effect of the country of origin’s culture on home ownership decisions, it remains partially unclear whether this cultural effect is indeed an heritage from agriculture, or reflects some other cultural traits that could be correlated with the prevalence of crop agriculture across countries. Another remaining concern could be the partial endogeneity of *CropShare*, as countries with more advanced agricultural techniques may be able to grow crops in areas that other countries could only use as pasture. If the level of technological advance also affects the ability to become home owner, the inference could be biased.

I address these concerns in several ways. Most importantly, I instrument the prevalence of either cropland or pasture at the country level with biochemical properties of soil. On one hand, fertile soils are likely to be used to grow crops. On the other hand, according to the Food and Agriculture Organization (FAO), the main determinant of soil fertility is the amount of subsoil organic carbon. I thus use detailed raster data on global soils from the Harmonized World Soil Database to construct country-level measures of organic carbon, as instruments for *CropShare* (i.e., the prevalence of crop agriculture relative to cattle grazing). The instrumental variable (IV) regression results confirm my hypothesis: an economically meaningful part of the cross-individual variation in home ownership can be causally interpreted as a cultural heritage from agriculture.

I additionally show that my results are robust to controlling for a number of distinct cultural traits at a country-level, such as the six dimensions of culture famously identified by Hofstede (see, e.g., Hofstede, Hofstede, and Minkov, 2010). Finally, following up on the pioneering work by Huber and Schmidt (2022), I show that it is not high homeownership *per se* (in the country of origin) that explains the decision to own a home by second-generation immigrants, but *only* high homeownership related to soil conditions (and thus to agricultural heritage).

To summarize, my results show that households attach more value to housing if they grew up in a society that traditionally attached greater cultural, political, or even religious value to land and immovable assets, as opposed to cattle and movable assets. This finding contributes to explain the considerable cross-country variation in household portfolios, which has often puzzled economists (Badarinza, Campbell, and Ramadorai, 2016).

Related literature

This paper relates to two main strands of the literature. First, a large number of papers have demonstrated the impact of culture on economic outcomes (Guiso, Sapienza, and Zingales, 2006; Algan and Cahuc, 2010). A common theme is that culture shapes individuals' believes and preferences and can be extremely persistent, including over centuries (Voigtländer and Voth, 2012) and when institutions change. For example, Alesina, Giuliano, and Nunn (2013) show that culturally transmitted gender norms persist after individuals with heterogeneous backgrounds migrate. Giuliano (2007) shows that culture determines living arrangements, notably the fraction of young adults living with their parents, while Fernandez and Fogli (2009) shows that it affects women's work and fertility behavior.

Second, there is a large literature in household finance that seeks to understand cross-country or cross-individual variation in portfolio allocations, including home ownership decisions. This literature is largely surveyed by Campbell (2006), Badarinza et al. (2016) and Gomes, Haliassos, and Ramadorai (2021). The main cultural factor that has been related to household finance is trust or "social capital". Guiso, Sapienza, and Zingales (2004) show that Italian households living in high-social-capital areas are more likely to use checks, invest less in cash and more in stocks. Relatedly, Guiso, Sapienza, and Zingales (2008) show that less trusting individuals are less likely to buy stocks, while El-Attar and Poschke (2011) show that they are more likely to invest in housing. Other papers pointing to a role of culture on household finance include

Haliassos et al. (2016) and Huber and Schmidt (2022). The latter paper also studies home ownership decisions of second-generation immigrants to show that culture plays a role. Relative to these papers, which either show an impact of culture in general (without reference to any specific cultural trait) or of trust, I provide evidence in favor of a novel deeply-rooted cultural trait affecting households financial decisions. Also related is Gorback and Schubert (2024), who show that cultural differences in the desire to own a home give rise to significant differences in the transmission of credit shocks, and can explain a sizable part of cross-individual differences in personal wealth and tenure decisions over the lifecycle. Beyond culture, households' financial and home ownership choices have been shown to depend notably on exposure to certain institutions (Osili and Paulson, 2008), on experiences (Malmendier and Nagel, 2011; Malmendier and Wellsjo, 2024) or on social interactions (Hong, Kubik, and Stein, 2004).

II. Historical background and main hypothesis

I start by providing a brief historical background on the cultural legacy of agriculture. Understanding cultural views about the respective valuation and safety of movable and immovable assets across societies helps justifying my main hypothesis on home ownership.

A. The cultural legacy of agriculture

Representations according to which there fundamentally exists two types of assets – immovables and movables – are at least several millennia old. For example, Benveniste (2016) shows that, instead of a simple term that would designate total "wealth", Greeks from the Homeric period (1200 to 800 BC) were using distinct terms for movable and immovable wealth.

There are strong reasons to think that the first concepts of immovable and movable assets were given substantive meaning based on prevailing farming practices. In particular, the association between movable assets and cattle can be seen in many examples. Benveniste (2016, Book I, Chap. 3) shows that the Greek terms designating "sheep" and "movable wealth" are derived from the same root. Similarly, a number of terms related to movable wealth across European languages are derived from the Latin "pecus" – such as "pecuniary" in English –, which means "cattle". In common law countries, movable assets are legally called "chattel", a term which derives from the same root as "cattle". Similarly, the term "capital", which was historically used to designate financial wealth, as opposed to real estate, derives from the Latin "capitālis", which meant "head of cattle".

While the linguistics confirms a close association between early concepts of assets and farming practices, the relation goes much beyond. It is often an entire culture that built around either land or cattle. Both of them have been associated with divinities, myths, legal representations and systems of power which often favored one type of wealth at the expense of others. The ethnographic and historical literature on them is enormous and cannot be surveyed here in its entirety. I will simply provide two examples.

European countries, from Ancient Greece, through the Roman era, and until the Middle Ages, have tended to be land-based societies: political power was associated with land holding in Greek cities, in Rome, as well as throughout the feudal society until the French Revolution, while movable wealth was often despised (Ellul, 2013). Writing about the pre-modern society, Dumont (1977, p. 5) notes that "In the traditional type of society, immovable wealth (estates) is sharply distinguished from movable wealth (money, chattels) by the fact that rights in land are enmeshed in the social organization in such a manner that superior rights accompany power over men. Such rights or 'wealth', appearing essentially as a matter of relations between men, are intrinsically superior to movable wealth, which is disparaged, as is natural in such a system for a mere relation between men and things." For example, a common saying in French medieval law is "res mobilis, res vilis" ("movable asset, vulgar asset"). Instead, throughout the feudal period, the same Latin term ("dominium") designates power over land and the power over people, and is positively connoted.

The opposite hierarchy is found in other societies, in which cattle is the most valued asset. This is notably the case in East African societies. In his classical study on the Nuer, Evans-Pritchard (1940) called them a "cattle people". In another famous study, Herskovits (1926) writes about the "cattle complex" in East Africa, that is, the mix of myths, representations and political structures that are based on cattle. He cites evidence that "among the Nuer, wealth is judged entirely by the number of cattle and sheep a man possesses" (p. 257). In contrast, other tribes that practice agriculture are regarded with contempt. Galaty and Bonte (2020) further note that, in these societies, political power is derived from cattle, not from land: "in full-fledged pastoral aristocracies, cattle are distinctly associated with kingship." They also note that the pastoral specialization of East African societies is very old, as it is already attested in the 3rd millenia BC.

These brief elements confirm that key assets in pre-industrial societies were much more than assets. They were cultural objects surrounded with myths, representations and power structures. The question I seek to answer is whether this cultural background still affects the way societies perceive immovable or movable assets, even after most institutions surrounding land and cattle have stopped to exist.

B. Hypothesis

My main hypothesis is based on the idea that societies in which land was the dominant asset – in which political power and representations were also based on land – have endowed individuals with a cultural background leading them to attach a relatively greater value to real estate.

Hypothesis 1. *Individuals from cultures with a history of crop agriculture are more likely to be home owners.*

This hypothesis requires that culture has a persistent component, even in the face of changing infrastructures and economic environment. Evidence for this persistence has been demonstrated in a variety of contexts (Guiso et al., 2004; Voigtländer and Voth, 2012). If persistence is large enough, preferences and believes about the relative value of immovable and movable assets, inherited from an agricultural past, could still shape financial decisions long after agriculture stopped being the main economic sector in many countries.

C. Measurement

The formulation of Hypothesis 1 has implications for measurement. First, as understood here, culture is slow-moving. Therefore, it is expected to explain primarily long-term average differences across groups of individuals with heterogeneous backgrounds, as opposed to short-run deviations from the average. To smooth away the effect of such short-term deviations, I work whenever possible with long-term averages for both the home ownership rate and for the variable measuring the prevalence of crop agriculture.

Second, Hypothesis 1 guides the construction of the main independent variable. To measure the relative predominance of farming based either on land or cattle – that is, on immovable or movable assets – I obtain data on global land use broken down, at the country level, between cropland and pasture. I then define the main independent variable, $CropShare_c$ as

$$CropShare_c = \frac{\text{Cropland area}_c - \text{Pasture area}_c}{\text{Cropland area}_c + \text{Pasture area}_c}, \tag{1}$$

that is, a number between -1 (if a country c has only pasture) and 1 (if a country c has only cropland). To compute *CropShare*, I rely on data from Taylor and Rising (2021), further discussed in Appendix A.4, which measure the relative share of cropland and pasture over the period from 1800 and 2010. Throughout the paper, I work with the long-term average of *CropShare*, over the 1800-2010 period. This ensures that I capture a structural element of each country's farming model.[1]

A potential concern with the measurement of *CropShare* could be that, while cropland areas are usually well delineated, pasture areas can be more open, without clear limits or well-defined property rights. I address this concern in several ways. First, by using total agricultural area (cropland + pasture) as denominator in Equation (1), instead of a country's total area, I avoid biasing the measurement for countries with

[1] As illustrated in Appendix Figure A1, *CropShare* is highly persistent over time. The pairwise correlation between *CropShare* in 2010 and *CropShare* in 1800 equals 84.3%, and the one between *CropShare* in 2010 and *CropShare* in 1900 equals 93.0%.

large pieces of land used neither for cropland nor for pasture. Second, the data by Taylor and Rising (2021) explicitly account for the fact that large pieces of land have no agricultural use ("natural land", "protected land", "tropical forest", etc.). They define as pasture only pieces of land that are explicitly used for cattle grazing. Third, to get a sense of potential measurement errors, I compute, for each country, the share of its total area that is classified as either cropland or pasture in 2010 (i.e., the last year in the data by Taylor and Rising (2021)). On average over 160 countries, this share is equal to 33.4%. Not surprisingly, countries that have low values of this ratio tend to be those with large areas of natural land in which the measurement of pasture may be more problematic, such as Sweden (1.7%), Canada (6.6%), Libya (8.2%) or Russia (10.8%). To make sure that my results are not driven by these observations, I later reproduce my main specifications after excluding countries for which this ratio is below or above specific percentiles.

The cross-country distribution of the variable *CropShare* is plotted in Figure 1 and mapped in Figure 2. As can be seen, there is considerable cross-country heterogeneity, as *CropShare* spans the full range of values from close to -1 (countries such as Saudi Arabia or Mongolia) to close to 1 (countries such as India or Myanmar).

[Insert Figure 1 approximately here.]

[Insert Figure 2 approximately here.]

D. Agricultural heritage and cultural representations

For Hypothesis 1 to be confirmed, it must be the case that the prevailing type of farming, based either on land or cattle, translates into cultural representations. Beyond the linguistic and ethnographic evidence discussed in Section A., I can now explicitly test whether the variable *CropShare* is associated with differences in cultural representations related to land or cattle across countries.

To do so, I use data from Berezkin (2015)'s *Folklore and Mythology Catalog*, as compiled by Michalopoulos and Xue (2021). For a total of 958 societies in the world, this dataset compiles data on the presence or absence of 2,564 folkloric motifs. In the local folklore, tales, or mythologies, a motif is "an episode or an image found in the set of narratives recorded in an ethnolinguistic community" (Michalopoulos and Xue, 2021, p. 1995). The data by Michalopoulos and Xue (2021) map local folklore both to major concepts and to present-day countries. While their results show that images used in local folklore are related to the physical environment in which people live (e.g., there are more earthquake-related motifs in earthquake-prone regions), I use their data to specifically focus on motifs related to dominant types of assets in pre-industrial societies – land and cattle – and to check whether these motifs are related to the prevailing form of agriculture.

I use Michalopoulos and Xue (2021)'s classification of land-related and cattle-related motifs, and measure their frequency at the country level, normalized by the total number of motifs. This variable is denoted $Freq_c^m$ in country c for motives m related to either land or cattle. To illustrate, an example of cattle-related motif (labeled *k136*) is "A lad becomes a master and a leader of great amount of cattle (cows

or buffaloes) and meets a princess (usually after she finds his hair fallen into a river).”
I then estimate the cross-country regression

$$Freq_c^m = \beta \cdot CropShare_c + FE_{cont} + \epsilon_c, \tag{2}$$

where FE_{cont} is a continent fixed effect.

[Insert Table 1 approximately here]

The results, in Panel B of Table 1, confirm that there is a significant association between the type of agriculture prevailing historically, as measured by *CropShare*, and cultural representations in the local folklore. In countries where crop agriculture is most prevalent, land-related motifs are more common (with an estimate of $\beta > 0$). Instead, in countries in which pasture grazing is dominant, cattle-related motifs are more frequent (with an estimate of $\beta < 0$). While descriptive, these results confirm the idea that farming practices shaped cultural views: land or cattle were more than productive assets. They became part of popular representations and systems of values, as reflected in local folklore and mythologies.

III. Stylized facts

I now test Hypothesis 1, that is, I explore whether a cultural heritage from agriculture can explain home ownership decisions. Before providing plausibly causal evidence, I assess whether stylized facts, across and within countries, are consistent with this hypothesis.

A. Cross-country evidence

To study the relation between crop agriculture and home ownership in a cross-section of countries, the main challenge is one of measurement: there is generally no unique method to compute home ownership rates across countries. To my knowledge, the best data are those by the OECD, covering 41 countries, which have the benefit of homogeneous measurement across countries.[2] For each country, I compute home ownership as the sum of outright ownership and ownership with a mortgage, and focus on the average rate over the 2010-2020 period. As illustrated in Figure 3, there is considerable heterogeneity in the cross-section: home ownership rates range from close to 40% (42.0% in Colombia or 43.4% in Switzerland) to above 90% (91.0% in Lithuania or 96.3% in Romania). As reported in Panel A of Table 2, there is also large heterogeneity in cropland shares across the subset of OECD countries, since the 10th and the 90th percentiles respectively equal -0.533 and 0.665 (for a variable ranging theoretically from -1 to 1).

[Insert Table Figure 3 approximately here]

[Insert Table 2 approximately here]

To test whether this cross-country heterogeneity is consistent with Hypothesis 1, I start by estimating

$$OwnRate_c = \alpha + \beta \cdot CropShare_c + FE_{reg} + FE_{inc} + \epsilon_c, \tag{3}$$

[2]For additional details on the datasets and variables, see Appendix A.

where $OwnRate_c$ is the average home ownership rate in country c and $CropShare_c$ is the measure of cropland share defined in Equation (1). FE_{reg} and FE_{inc} are respectively fixed effects at the regional level (as defined by the United Nations, that is, Americas, Asia, Europe and Oceania) and at the income group level (i.e., high income or upper middle income).

The estimation results, together with robust standard errors, are reported in Panel B of Table 2. Columns (1) to (3) are estimated using the baseline measure of *CropShare*, that is, country-level data from Taylor and Rising (2021). The coefficients show a positive association between cropland share and the home ownership rate. Across specifications without and with fixed effects, the estimate is statistically significant at the 5% or 1% levels. In terms of magnitude, it is also economically large: a one standard-deviation increase in *CropShare* is associated with an increase in home ownership rate of about 6 percentage points, which amounts to one half of the cross-country standard deviation (equal to 0.120). Therefore, countries in which crop agriculture has been the dominant form of farming over the past 200 years tend to have significantly higher home ownership rates today – even so agriculture is now a minor economic sector in most OECD countries.[3]

In columns (4) to (6), I reproduce the same regressions, with an alternative measure of *CropShare*, computed from OECD data on land use (see Appendix A.2 for details). These data have the additional benefit of covering a few extra European countries not included in the global dataset from Taylor and Rising (2021).[4] Once reestimated, the results remain statistically significant, albeit at lower levels (10% or 5%) and with a

[3]As reported in Panel A of Table 2, for the median OECD country, only 3.4% of workers are in the agricultural sector.

[4]As discussed in Appendix A.4, the correlation between the two series is very high (88.8%).

slightly lower economic magnitude: a one standard-deviation increase in *CropShare* is associated with an increase in home ownership rate of about 4.5 percentage points, which amounts to one third of the cross-country standard deviation.

B. Cross-region evidence

While informative about broad patterns, cross-country regressions raise a number of concerns. One of them is related to measurement. Country averages for the variable *CropShare* may hide significant within-country variation in the relative importance of cropland and pasture. A second concern is that, across countries, many institutional factors beyond the agricultural heritage could drive differences in home ownership (e.g., land regulation, ownership regimes, mortgage design).

A first method to address these two concerns is to restrict the focus to variation across regions but *within* the same country. The European Union (EU) provides an interesting setup to establish cross-region stylized facts: it is partitioned into administrative units, called NUTS (Nomenclature of Territorial Units for Statistics), which have roughly the same size throughout the EU, and for which it is possible to obtain both homogeneous home ownership rates and data on land use. I work at the level of NUTS-2 regions, i.e., 253 statistical units between 0.8 and 3 million inhabitants. Variation in *CropShare* across NUTS-2 regions is large, ranging from a value of -0.648 at the 10th percentile to 0.533 at the 90th percentile (see Panel A of Table 3).

Using these data, I estimate

$$OwnRate_{reg} = \alpha + \beta \cdot CropShare_{reg} + \gamma \cdot Controls_{reg} + FE_c + FE_{gdp} + \epsilon_{reg}, \quad (4)$$

where $OwnRate_{reg}$ and $CropShare_{reg}$ are respectively the home ownership rate and the cropland share at the NUTS-2 region level, FE_c is a country fixed effect, and FE_{gdp} a fixed effect for groups of regions based on their GDP per capita. In some regressions, I control for income inequality or the urbanization rate, in order to rule out alternative explanations (see Section D.). I cluster standard errors at the country level.

[Insert Table 3 approximately here]

The estimation results are in Panel B of Table 3. Across specifications without or with fixed effects and controls, I confirm that a greater historical prevalence of land-based agriculture is associated with higher home ownership rates today (with statistical significance ranging from a 1% to a 10% level). The magnitude of the within-country effect (column 6) is smaller than in cross-country regressions, but remains economically meaningful: a one standard deviation increase in *CropShare* is associated with an increase in home ownership rate corresponding to about 14% of its cross-region standard deviation (equal to 0.070).

These cross-region results confirm the cross-country stylized facts. But, while they are consistent with Hypothesis 1, they are still far from providing causal evidence that a history of crop agriculture led to a culture valuing real estate relatively more than other assets. First, while within-country regressions hold country-level institutions fixed, it could still be the case that there exists variation in local institutions that are more or less conducive to home ownership. To the extent these local institutions may correlate with the prevailing type of agriculture, no causal interpretation of the above results is possible. Second, there could be alternative explanations for the documented fact. For example, if it is the case that people historically practicing crop-based or cattle-based agriculture systematically faced distinct experiences in terms of inflation, housing returns, war destruction, etc., these experiences could also lead them to desire home ownership relatively more or less (Malmendier and Wellsjo, 2024; Happel et al., 2022).

IV. Identification using second-generation immigrants

To address these concerns, I turn to the first main element of my identification strategy. Studying the home ownership decisions of second-generation immigrants with heterogeneous cultural backgrounds allows me to isolate the role of culture from that of other confounding factors, notably institutions and experiences.

A. Identification strategy

To identify the role of culture, as opposed to institutions and experiences, my strategy is to fix institutions and experiences and to study variation in financial decisions across individuals with heterogeneous cultural backgrounds. As in Fernandez and Fogli (2009), I rely on the fact that a cultural background is "portable" while institutions remain attached to specific countries. Consequently, the financial decisions of immigrants can be particularly informative about the causal role of culture.

Focusing on the home ownership decisions of first-generation immigrants (that is, individuals born abroad who are now living in a new country) would not alleviate all endogeneity concerns. Indeed, individuals born abroad have been exposed to other institutions, and this exposure itself may have lifetime consequences even after moving

(Osili and Paulson, 2008). To overcome this concern, as in Fernandez and Fogli (2009) or Alesina et al. (2013), I focus on home ownership decisions of second-generation immigrants, that is, individuals born in a country, but whose parents were born abroad and moved to this country. Second-generation immigrants have never been directly exposed to the institutions of their parents' country of origin; the only exposure they retain to this country is through the cultural background that may have been transmitted via parents. Similarly, they have had no personal macroeconomic experiences in their parents' country of origin, but only in their new country.

Datasets in which one can observe both some household finance variables – including home ownership –, the country of birth, and the country of birth of both parents, are rare. In the US, the only dataset with such information is the March Supplement of the US Current Population Survey (also called Annual Social and Economic Supplements), publicly available from the US Census. For my tests, I combine the three latest vintages of the dataset, corresponding to years 2022, 2023 and 2024.[5]

To get the tightest identification possible, I focus on second-generation immigrants whose both father and mother are born outside the US. This leaves me with a sample of 5,524 individuals, whose parents are born in 145 countries. For each of them, I obtain a dummy variable equal to one if they are homeowners, as well as other demographic and financial variables that may affect home ownership. In Table 4, I provide descriptive statistics on these variables (Panel A) and list the 15 most represented countries of origin (Panel B).[6] I am then able to match the variable *CropShare* for 94 countries of

[5]For individuals present in multiple vintages, I keep only the latest observation.

[6]The full list of countries of origin, together with data on their home ownership rate (when available), on their land use (the variable *CropShare*) and on soil properties (used below as instruments), is provided in Appendix Tables A1 to A3.

origin, representing 5,456 persons.[7]

[Insert Table 4 approximately here]

One potential concern about second-generation immigrants is that they may not be randomly selected: individuals descending from countries historically practicing crop agriculture or cattle grazing may differ along other demographic and financial characteristics. To assess whether this is the case, I regress in Table 5 a number of individual characteristics on the average value of *CropShare* in the parents' countries of origin. The results show that individuals whose parents came from countries where crop agriculture is dominant have on average higher income, are older, more educated, more likely to be male, less likely to be married and live in households with fewer members. These correlations would be problematic if these characteristics are also conducive to home ownership. To alleviate this concern, I systematically control for these variables in the regressions below.

[Insert Table 5 approximately here]

B. Baseline estimation

In the sample of second-generation immigrants, I estimate

$$\begin{aligned} Owner_i = &\alpha + \beta \cdot CropShareParents_i + \gamma \cdot Controls_i \\ &+ FE_{state} + FE_{metropolitan} + FE_{marital} + FE_{educ} + FE_{race} + \epsilon_i, \end{aligned} \tag{5}$$

[7]All these persons are defined as the "reference person" in the CPS data, that is, I exclude other persons in the household, beyond the respondent. Some variables available only at the household level are matched to data at the person level. See Appendix A.5 for details.

where $Owner_i$ equals one if individual i is a home owner. The main dependent variable, $CropShareParents_i$, is defined as the average value of $CropShare$ for i's mother's and father's countries of origin. This approach avoids taking a stance on whether culture transmits primarily through the father or the mother, which may differ across cultures.[8]

The approach taken in Equation (5) alleviates two additional concerns. First, I include a number of fixed effects for states, metropolitan areas, marital statuses, race and levels of education. These fixed effects mitigate the concern that immigrants from certain origins may be over- or under-represented in certain geographical areas or have characteristics that are conducive to home ownership.

Second, since Equation (5) is estimated at the individual level, I also include a number of personal characteristics that are known to be associated with home ownership. The vector of controls includes demographic characteristics: age, age squared, sex, and the number of persons in the household. Furthermore, to alleviate the concern that the ability to be homeowner may depend on a household's financial condition, I include the logarithm of the household's income as a control. I also cluster standard errors at the level of father's country of origin.

[Insert Table 6 approximately here]

Estimates are reported in Table 6. From column (1) to (4), I sequentially make the specification more complete. In column (1), I report an estimate for all individuals whose parents are born outside the US, regardless of whether they are themselves

[8]In our sample, the country of birth of the father and of the mother is the same for 88.4% of individuals.

born in the US. In column (2), I further restrict to persons born in the US, that is, second-generation immigrants. Both regressions yield a positive estimate of β, statistically significant at the 1% level. Its magnitude is fairly comparable to the one found using cross-country data in the OECD. In column (3), I add all fixed effects and, in column (4), I add all control variables. This reduces the magnitude of the effect by about one 40%, but the estimate remains statistically significant at the 1% level. The economic magnitude remains sizable: a one-unit increase in *CropShare* generates a 3.0 percentage points increase in the probability of being homeowner (compared to an average home ownership rate of 49.7% in the sample). These results point to a causal effect of culture on home ownership, driven by historical exposure to agriculture.

C. Robustness

I next explore the robustness of the most complete specification – the one in column 4 of Table 6 – to various alternatives. First of all, I address the concern that, for some countries, there could be a mismatch between the areas covered by the *CropShare* and the areas in which most people live. To this end, I first compute, for each country, the fraction of total land which qualifies as agricultural land (either cropland or pasture). Descriptive statistics are provided in Panel A of Table 4 (line 4). Concerns about the mismeasurement of *CropShare* are arguably more acute when this ratio takes extreme values. Thus, in columns (1) and (2) of Table 7, I re-estimate my baseline specification after excluding countries of origin with a ratio of agricultural land to total land respectively below 20% or above 45% (corresponding roughly to the 25th and 75th percentiles of the distribution). The baseline results hold and, if anything, become slightly larger (estimates of 0.066 and 0.109 versus 0.061 in the baseline model).

[Insert Table 7 approximately here]

As another way to address the same concern, I re-estimate the baseline specification, but with the independent variable *CropShare* measured in 1800 (as opposed to the average over the 1800-2010 period). The idea is that, as of 1800, this variable measures land use before the rural exodus that started in the 19th century (e.g., in the UK) or much later in the 20th century (e.g., in China). Estimates in column (3) of Table 7 show that my results are robust to this change of variable.

As a third way to address the measurement concern, I rely on the idea that countries with a significant mismatch between the locations where agriculture takes place and the locations where most of the population lives are likely to be characterized simultaneously by (i) a high ratio of agricultural land to total land and (ii) a high urbanization rate. I construct a dummy variable equal to 1 for countries which are above the median along both these dimensions. In column (4) of Table 7, I interact *CropShare* with this dummy variable. While the baseline coefficient on *CropShare* remains positive and statistically significant, the interaction is insignificant. This confirms that concerns arising from mismeasurement are minor.

In column (5) of Table 7, I address the issue that the results could be coming from individuals working directly in the agricultural sector in the US. Indeed, a concern could exist that individuals coming from societies with an agricultural background are more likely to continue working in agriculture once in the US, and that agriculture requires ownership of real estate. Re-estimating the baseline model after excluding individuals working in agriculture does not affect the results.

Then, in column (6) of the same table, I provide more direct evidence of a mechanism working via an "agricultural culture" by re-estimating the baseline regression, but with with a different independent variable. Instead of *CropShare*, I use a measure of the prevalence of land motifs (relative to cattle motifs) in local folklore (see Section D.). The estimates confirm that a higher relative prevalence of land motifs in the country of origin's folklore is associated with a higher probability to own a home among US second-generation immigrants.

Table 8 provides another set of robustness tests. In Column (1), I exclude second-generation immigrants from Mexico, which are over-represented in the sample of countries of origin (see Panel B of Table 4). In Columns (2) and (3), I respectively exclude all individuals from Latin America or Australia and New Zealand. The concern is that such regions have been heavily colonized, potentially picking up a culture unrelated to traditional forms of farming. In all cases, I find very similar estimates of the coefficient on *CropShare*.

[Insert Table 8 approximately here]

In column (4), I use a tighter fixed effect strategy, by including $State \cdot Metropolitan$ fixed effects, rather than *State* and $Metropolitan$ fixed effects separately. This allows me focus on variation within metropolitan or non-metropolitan areas of any given state. The baseline estimate of β is economically and statistically unchanged.

In column (5), I cluster standard errors by income groups, in addition to clustering by the father's country of origin. Theoretically, clustering should be done along dimensions in which the sampling may not reflect random draws from the entire population (Abadie et al., 2023). In the case of the Current Population Survey, a common concern is that certain income groups (particularly the richest) are over-sampled. Once again, clustering by income groups does not significantly affect the results.

In column (6), I include an additional "migration" fixed effect, equal to 1 for individuals who moved across state borders during the preceding year. This is meant to address the concern that individuals with a background of cattle-based farming could be more mobile (since their livelihood is traditionally based on a mobile asset). The fixed effect ensures that I compare individuals with the same migration status, and the results are almost unchanged.

D. Alternative explanations

I now discuss potential alternative explanations. One broad concern is that the results could be driven by the exposure of individuals with distinct agricultural backgrounds to different institutions or experiences. In a strict sense, this concern is fully taken care of in my estimation, given the focus on second-generation immigrants born in the US. These individuals have had no *personal* experience with institutions in their parents' country of origin. They also have not *personally* faced distinct macroeconomic experiences in their country of origin. Instead, in the literature on experience effects, it is almost always personal experiences that are extrapolated and guide decision-making (Agarwal et al., 2016; Kuchler and Zafar, 2019; Malmendier and Wellsjo, 2024; Happel et al., 2022).

A related concern is that second-generation immigrants with distinct agricultural background may end up in different areas within the US. If so, they may face distinct experiences about housing returns or other local economic outcomes that are conducive to home ownership. However, this concern is taken care of in my regressions using state fixed effects and metropolitan fixed effects: my baseline specification compares individuals with distinct agricultural background but within the same state, and within either metropolitan or rural areas. By the same token, the state fixed effects also alleviate the concern that results may be driven by differences in state-level institutions (e.g., mortgage design, personal bankruptcy rules, bank regulation, etc.).

Another argument could be that individuals originating from countries in which crop agriculture is dominant are more likely to find it optimal to stay longer in the same place. As a consequence, they may desire home ownership more, as a way to hedge against rent risk (Sinai and Souleles, 2005). As discussed above, my findings are robust to the inclusion of migration fixed effects (column 6 of Table 8). To further address the concern, I re-estimate my baseline specification, but with a migration dummy (as opposed to the home ownership dummy) as dependent variable. The results, in Appendix Table A4, show either insignificant results (columns 1 to 3) or estimates that have the opposite sign of what we would expect: if anything, individuals with a background of crop agriculture are more likely to move from state to state once in the US. Thus, if we believe that more mobile persons are, all else equal, less likely to be home owners, it is unlikely that preferences for mobility drive my results. It should instead bias me against finding significant results.

Another set of concerns could come from the fact that, while my above results identify an impact of culture – transmitted from parents to children – on home ownership, one could still question whether I truly identify a cultural heritage from agriculture (i.e., views about the relative desirability of movable or immovable assets originating from the fact that, for long periods of time, dominant assets were either land or cattle). Indeed, it is possible that other characteristics of the country of origin – including other cultural traits – conducive to home ownership are correlated with the prevailing form of agriculture. For example, it could be that countries with more crop agriculture are richer (because the soil is more fertile) or more equal (because a greater attachment to land increased the likelihood of land reforms)[9]. It could also be that institutions such as democratic institutions or the rule of law in immigrants' countries of origin shape culture in important ways. To address such concerns, I reproduce my baseline specification after controlling for GDP per capita, wealth inequality (measured as the wealth share of the top-10%), the existence of democracy and the prevalence of the rule of law in the country of origin. The results, in column (1) of Table 9, confirm the robustness of the baseline estimate.

[Insert Table 9 approximately here.]

Along the same lines, In column (2), I control for the home ownership rate in the country of origin: the fact that my coefficient on *CropShare* remains significant indicates that I am likely to truly identify and "agricultural culture" channel, as opposed to a general culture valuing home ownership (but disconnected from the agricultural past). In the same spirit, one may wonder whether the results hold for countries of origin which are either communist today, or have been communist in the past. In columns (3) and (4) of Table 9, I interact my coefficient of interest (on *CropShare*) with a dummy variable equal to one for countries which are currently communist, and with one equal to one for countries from former USSR. In both cases, the uninteracted

[9] This reasoning also explains why I control for income inequality in my regressions at the NUTS-2 level (Table 3). Unfortunately, measures of wealth inequality are not available at a country level, and income inequality is used as a proxy.

coefficient on *CropShare* remains positive and significant.[10]

Finally, in Appendix Table A5, I sequentially add variables controlling for six key dimensions of culture, as identified in the seminal work by Geert Hofstede (e.g., Hofstede et al., 2010): power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence.[11] The results turn out to be robust to controlling for all six dimensions of culture, even though the magnitude of the coefficients is, at times, attenuated.

V. Identifying the mechanism

I now turn to a deeper inspection of the mechanism, using two methods. Both of them rely on the idea that biochemical properties of the soil act as exogenous shifters of the prevalence of agriculture (or *CropShare*) at a country level. These tests further address the concerns raised in the previous section.

A. Exegenous shifters of *CropShare*

To precisely assess the mechanism behind my results, it is useful to find a variable that shifts the extent of crop agriculture (measured by *CropShare*) at a country level, but that is unrelated to other social, cultural or political characteristics or experiences in that country. Such a variable could be used as an instrument to address concerns about the potential endogeneity of *CropShare*, but could also pin down a cultural effect originating in the practice of specific types of agriculture (as opposed to other cultural

[10] Regarding the interaction, it seems that current experience of communism makes individuals more likely to own a home. However, it could also be that the effect is driven by the selection of specific individuals who chose to move out of communism to the US.

[11] Some of these variables have previously been used in finance research, e.g., by Pan et al. (2020).

traits or experiences correlated with them).

A natural candidate for such instrument are the biochemical properties of the soil that are conducive to soil fertility. The idea is that crop agriculture requires a certain degree of soil fertility to be viable. In regions where these properties do not exist, the main way for people to obtain food is to rely more on cattle and products derived from cattle (herbivores eat plants that humans cannot digest and produce digestible food out of them, including meat, butter or milk). In addition, biochemical soil properties can be treated as exogenous: even though human activities can affect the properties of soils, they are extremely slow-moving. For example, it takes about 300 years for just 1 centimeter of soil to form. To further alleviate concerns that soil properties may be partially endogenous, I rely only on measures related to *sub*soil as opposed to *top*soil.

The main issue that soil fertility raises is one of measurement. While biologists have long attempted to come up with a unique metric for soil fertility, this has proved impossible to obtain. Fertility exists only as a combination of several biochemical properties that need to be jointly satisfied. That said, not all properties are as important as others. According to the Food and Agriculture Organization (FAO), "organic carbon is [...] the best simple indicator of the health status of the soil. Moderate to high amounts of organic carbon are associated with fertile soils with a good structure " (FAO, 2009, p.14). This gives me a rationale to use a measure of subsoil organic carbon as an exogenous shifter for the prevalence of crop agriculture, i.e., the variable *CropShare*.

To construct this instrument, I proceed in several steps. First, I obtain the Harmonized World Soil Database (HWSD) from the FAO. This dataset is a raster providing soil properties – including subsoil organic carbon and subsoil pH – for every 0.25-

degree (approximately 5 km by 5 km) for the entire earth. I then assign a longitude and a latitude to each cell in the raster and map these coordinates to a country. I then compute average soil properties for each country in the world. Finally, I follow the guidelines by the FAO to define subsoil organic carbon more precisely: I transform the raw percentage into a categorical variable that takes five values, using the thresholds suggested by the FAO (2009, p.14).[12]

Appendix Figure A2 maps both subsoil organic carbon at the global level. Beyond large cross-country variation in these two dimensions, visual comparison of this map with Figure 2 gives preliminary indication that biochemical properties that make soils fertile are also conducive to a relatively greater reliance on crop agriculture over cattle grazing.

B. "Agricultural culture" versus "Home ownership culture"

I now use biocheminal soil properties for two purposes. A key challenge is to determine whether the effect identified in the previous section really works through an "agricultural culture" that persist even in modern societies, or whether it could be a more general "cultural" effect, unrelated to agriculture. For example, it could be that home ownership is highly valued in some societies for reasons unrelated to traditional forms of farming. This concern is especially valid given the work by Huber and Schmidt (2022), who provide evidence of a general "cultural" effect, by showing that home ownership decisions of second-generation immigrants in the US depend on home ownership rates in their parents' countries of origin. While I already showed the robustness of my results to the inclusion of several variables controlling for other

[12] See Appendix A.9 for details.

cultural traits (and for the overall home ownership rate) at a country level, one could wonder whether omitted cultural traits could still explain the findings.

I address this concern by designing a test in the spirit of Huber and Schmidt (2022). It relies on the idea that home ownership rates, in immigrants' countries of origin, can be thought of as a combination of two forces: they are partly driven directly by the agricultural past (and transmitted through values, folklore, etc.), and partly driven by other cultural forces unrelated to agriculture. In that sense, if a US descendant from a country with a high home ownership rate is relatively more willing to own a home, it could be because of either element. The idea behind my tests is to use a regression approach to decompose home ownership rates in countries of origin between (i) one part predictable based on biochemical soil properties (and thus presumably directly related to agricultural factors) and (ii) the "excess" home ownership rate, not predicted by soil properties. This decomposition can be obtained by country-level regressions,

$$OwnRate_c = \alpha + \beta \cdot SOC_c + \epsilon_c, \tag{6}$$

where $OwnRate_c$ and SOC_c are respectively the home ownership rate and average subsoil organic carbon in country c. After these regressions are estimated in the sample of countries for which home the ownership rate is available (i.e., the sample of OECD countries), one can compute the "predicted" and "excess" home ownership rates respectively as

$$PredictedOwnRate_c = \hat{\alpha} + \hat{\beta} \cdot SOC_c \tag{7}$$

and

$$ExcessOwnRate_c = OwnRate_c - PredictedOwnRate_c, \tag{8}$$

where $\hat{\alpha}$ and $\hat{\beta}$ denote the coefficients estimated from Equation (6).

I then test separately whether $PredictedOwnRate_c$ and $ExcessOwnRate_c$ in the countries of origin predict home ownership decisions by second-generation immigrants in the US. This essentially replicates the main test in Huber and Schmidt (2022), but after breaking down the overall home ownership rate between one part predicted by soil conditions (i.e., $PredictedOwnRate_c$) and one part driven by factors unrelated to soil or agriculture (i.e., $ExcessOwnRate_c$). If the effect I'm documenting is a general "home ownership" effect (i.e., individuals desire homes because their parents come from countries with high home ownership, regardless of the agricultural past), then both variables should predict home ownership decisions of second-generation immigrants. Instead, if the effect is specifically related to an "agricultural culture" transmitted across generations, only the coefficient on $PredictedOwnRate_c$ should be positive and statistically significant.

[Insert Table 10 approximately here.]

This is exactly what we observe in Table 10. In columns 1, 2, 3 and 5, 6, 7, I find that home ownership rates predicted based on soil conditions in the country of origin are positively related to home ownership decisions of second-generation immigrants in the US. The relationship is statistically significant in all but one case (and most often at the 1% level). This is true both in the sample of countries in which the home ownership rate is observed (columns 1, 2, 5 and 6) and in a sample that includes other countries for which home ownership rates are not available but predicted using soil properties and the coefficients $\hat{\alpha}$ and $\hat{\beta}$ estimated from Equation 6 (columns 3 and 7). Instead, the "excess" home ownership rate, which should capture all determinants of ownership beyond soil conditions, is not predictive of immigrants' ownership decisions, both when added as a control in columns 1 and 5, and when tested independently (columns 4 and 8). This provides evidence in favor of a mechanism working via an "agricultural culture", as opposed to other features of culture.

C. Instrumental variable estimation

I finally use the biochemical properties of the soil explicitly as an instrument. The goal is to explicitely address the concern that *CropShare* could be endogenous, and driven by omitted cultural traits unrelated to the agricultural heritage. The instrumental variable (IV) approach consists in instrumenting for $CropShareParents_i$ in Equation (5) with the average soil properties of individual i's parents' countries of origin. That is, I estimate the following first-stage equation

$$\begin{aligned} CropShareParents_i =& \phi + \mu \cdot SOCParents_i + \eta \cdot Controls_i + FE_{state} \\ &+ FE_{metropolitan} + FE_{marital} + FE_{educ} + FE_{race} + \varepsilon_i, \end{aligned} \tag{9}$$

where $SOCParents_i$ is the average subsoil organic carbon in soils in i's parents' countries of origin. I then use a two-stage least squares estimation to obtain the coefficients of interest.

[Insert Table 11 approximately here.]

I report estimates of the first-stage and second-stage regressions respectively in

Panels A and B of Table 11. In the first stage, I find statistically significant estimates for the coefficient μ, at the 1% level, and with the expected signs, across all specifications: a higher level of subsoil organic carbon is conducive to a higher share of land devoted to crop agriculture as opposed to cattle grazing. I additionally report F-statistics, which are high in all cases (above 50). This give confidence about the relevance of the instrument.

In the second stage, I also find statistically significant coefficients across specifications. Once individual controls are included (columns 2 and 3), the magnitude of the coefficient of interest is comparable, albeit a bit smaller, to the one in the most complete OLS specification (0.049 vs. 0.061, see column 4 of Table 6. These estimates highlight that the endogeneity of *CropShare* is unlikely to be a major concern in our case. Finally, the IV results also contribute to a tighter interpretation of the mechanism: the cultural traits that lead to home ownership decisions can be causally related to an agricultural heritage, which was itself shaped by soil properties.

VI. Conclusion

For most households, choosing to own a home is the single most important financial decision they take in their lifetime. When they do so, real estate becomes their dominant asset, and their exposure to shocks changes (Gorback and Schubert, 2024). In this paper, I use several identification strategies to show that this decision is significantly influenced by a cultural heritage from agriculture. For centuries, dominant assets in pre-industrial economies were either land or cattle, so that preferences and views about the relative value of immovable and movable assets were largely shaped by the prevailing type of farming. In particular, societies dominated by crop agriculture tended to view land as the preferred and "safest" asset. Today, individuals originating from societies with a history of crop agriculture are significantly more likely to own a home, even after they migrate.

These results open the question whether the cultural heritage of agriculture also explains other financial decisions by households, beyond home ownership – such as a differential valuation for movable real assets (e.g., precious metals) or financial assets. Testing these additional hypotheses would require more granular data on portfolio allocation, and is left for future research. Another interesting avenue would be to directly relate the cultural heritage of agriculture to believes about assets. For the US, Adelino et al. (2018) report believes that are puzzling from the vantage point of financial theory: 71% of US households believe that housing is safe, while this percentage is only 55% for bonds. Unfortunately, standard cross-country datasets on believes and values, such as the World Values Survey, currently do not include questions on assets – so that it remains hard to identify the role of culture in these broader believes.

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Table 1: Cropland share and cultural representations

This table studies the relation between cropland share and the frequency of motifs related to either land or cattle in the local folklore. Panel A provides descriptive statistics on cropland share and on the frequency of folkloric motifs (normalized by the total number of motifs in a country) across countries. Panel B provides estimates of a regression of these motifs' frequencies on the country-level value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1). Each regression is estimated without and with continent fixed effects. Robust standard errors are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A : Descriptive statistics

	Min.	10th	25th	Mean	Median	75th	90th	Max.	St. dev.	Obs.
Crop. share	-1.000	-0.917	-0.723	-0.175	-0.215	0.349	0.749	0.997	0.598	165
Land motifs	0.000	0.021	0.027	0.036	0.034	0.042	0.051	0.133	0.016	199
Cattle motifs	0.000	0.018	0.028	0.037	0.039	0.046	0.052	0.113	0.015	199

Panel B : Cross-country regressions

	Land motifs	Land motifs	Cattle motifs	Cattle motifs
Crop. share	0.006***	0.005**	-0.005**	-0.006***
	(0.002)	(0.002)	(0.002)	(0.002)
Robust std. error	Yes	Yes	Yes	Yes
Continent FE	No	Yes	No	Yes
Adj. R2	0.103	0.127	0.041	0.169
Obs.	160	160	160	160

Table 2: Cropland share and home ownership – OECD countries

This table studies the relation between cropland share and home ownership rates across OECD countries. Panel A provides descriptive statistics on the home ownership rate, on two measures of the variable *CropShare*, and on the employment share in agriculture. Panel B estimates several specifications of Equation (3), without and with region or income group fixed effects. Robust standard errors are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A : Descriptive statistics – OECD sample

	Min.	10th	25th	Mean	Median	75th	90th	Max.	St. dev.	Obs.
Own. rate (in %)	0.420	0.578	0.662	0.730	0.727	0.811	0.893	0.963	0.120	40
Crop. share – Global data	-0.901	-0.533	-0.245	0.106	0.167	0.543	0.665	0.981	0.497	35
Crop. share – OECD data	-0.853	-0.706	-0.192	0.205	0.342	0.543	0.898	1.000	0.536	40
Employment in agric. (in %)	0.008	0.016	0.021	0.045	0.034	0.049	0.106	0.152	0.037	35

Panel B : Cross-country regressions – OECD sample

	Own. rate	Own. rate	Own. rate	Own. rate	Own. rate	Own. rate
Crop. share – Global data	0.120**	0.164***	0.126**			
	(0.045)	(0.053)	(0.048)			
Crop. share – OECD data				0.084**	0.091*	0.097**
				(0.036)	(0.049)	(0.044)
Robust std. error	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	No	Yes	No	No	Yes	No
Inc. group FE	No	No	Yes	No	No	Yes
Adj. R2	0.201	0.250	0.222	0.119	0.108	0.128
Obs.	35	34	35	40	38	39

Table 3: Cropland share and home ownership – European NUTS-2 sample

This table studies the relation between cropland share and home ownership rates across NUTS-2 regions in Europe. Panel A provides descriptive statistics on the home ownership rate, on the variable *CropShare* and on control variables. Panel B estimates several specifications of Equation (4), without and with country fixed effects, GDP group fixed effects, and control variables. Standard errors, clustered at the country level, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A : Descriptive statistics – European NUTS-2 sample

	Min.	10th	25th	Mean	Median	75th	90th	Max.	St. dev.	Obs.
Own. rate	0.154	0.463	0.579	0.651	0.664	0.739	0.817	0.972	0.140	253
Own. rate – country FE	-0.383	-0.072	-0.025	0.001	0.010	0.037	0.069	0.182	0.070	253
Crop. share	-0.990	-0.585	-0.234	0.035	0.098	0.364	0.527	0.697	0.418	253
Income inequality	2.700	3.300	3.700	4.414	4.200	4.900	5.700	9.600	1.058	178
Urbanization rate	0.386	0.495	0.579	0.698	0.682	0.835	0.925	0.992	0.157	194

Panel B : Cross-region and within-country regressions – European NUTS-2 sample

	Own. rate	Own. rate	Own. rate	Own. rate	Own. rate
Crop. share	0.062**	0.033*	0.103***	0.063*	0.023*
	(0.029)	(0.017)	(0.026)	(0.034)	(0.011)
Income inequality			0.036*		
			(0.018)		
Urbanization rate				-0.216	
				(0.126)	
Clustered std. error	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	No	Yes
GDP group FE	No	Yes	No	No	No
Adj. R2	0.031	0.295	0.106	0.067	0.732
Obs.	253	219	178	194	249

Table 4: Descriptive statistics – CPS dataset

This table provides descriptive statistics on the individual level data, from the Current Population Survey, that I use in the main regressions. Panel A reports the distribution of the variables used in the analysis. Panel B list the 15 largest countries of origin of second-generation immigrants' parents, as well as the number of fathers and mothers from these origins. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A : Moments of the main variables

	Min.	10th	25th	Mean	Median	75th	90th	Max.	St. dev.	Obs.
Owner	0.000	0.000	0.000	0.559	1.000	1.000	1.000	1.000	0.497	5524
Avg. Crop share – Parents	-1.000	-0.481	-0.481	-0.127	-0.451	0.189	0.706	0.997	0.500	5456
Avg. Crop share in 1800 – Parents	-1.000	-0.522	-0.522	-0.130	-0.522	0.226	0.712	1.000	0.555	5045
Share of agric. land – Parents	0.014	0.068	0.249	0.360	0.455	0.455	0.548	0.751	0.168	5335
Log(Income)	0.000	10.043	10.743	11.252	11.345	11.919	12.414	14.637	1.122	5451
Age	15.000	24.000	29.000	42.310	38.000	52.000	69.000	85.000	17.196	5524
Sex	1.000	1.000	1.000	1.496	1.000	2.000	2.000	2.000	0.500	5524
Education	1.000	2.000	2.000	2.476	2.000	3.000	4.000	4.000	0.848	5524
Marital status	0.000	0.000	0.000	0.421	0.000	1.000	1.000	1.000	0.494	5524
Race	0.000	0.000	0.000	0.678	1.000	1.000	1.000	1.000	0.467	5524
N. persons in household	1.000	1.000	2.000	2.822	3.000	4.000	5.000	11.000	1.588	5524
Metropolitan	1.000	1.000	1.000	1.054	1.000	1.000	1.000	2.000	0.226	5487
GDP per capita (log.) – Parents	6.055	8.110	8.829	9.158	9.162	9.513	10.358	11.396	0.853	5412
Wealth inequality – Parents	0.454	0.588	0.603	0.686	0.663	0.787	0.787	0.790	0.087	5440
Democracy – Parents	1.500	3.533	5.400	5.685	5.950	5.950	6.850	9.600	1.366	4361
Rule of law – Parents	1.250	2.750	4.500	4.726	4.750	4.750	6.125	10.000	1.423	4361
Home ownership rate – Parents	41.977	66.486	71.624	70.897	71.624	71.624	74.946	96.303	6.734	2913
Communist Today	0.000	0.000	0.000	0.114	0.000	0.000	1.000	1.000	0.310	5063
Former USSR	0.000	0.000	0.000	0.012	0.000	0.000	0.000	1.000	0.107	5524
Subsoil org. carbon – Parents	1.000	2.000	2.000	2.368	2.000	2.500	3.000	5.000	0.823	5459

Panel B : Countries of origin – Top-15

Country	Share Obs.	N. Fathers	N. Mothers
Mexico	0.374	2,106	2,117
Puerto Rico	0.066	371	374
China	0.042	239	238
Philippines	0.041	229	237
India	0.029	168	161
Viet Nam	0.026	145	146
Salvador	0.025	137	149
Italy	0.023	133	128
Cuba	0.023	130	126
Republic of Korea	0.019	104	106
Dominican Republic	0.017	95	101
Canada	0.017	86	105
Germany	0.016	89	94
Poland	0.015	85	81
Guatemala	0.013	77	73

Table 5: Agricultural heritage and characteristics of second-generation immigrants

This table describes characteristics of second-generation immigrants in the US, depending on their agricultural heritage. The dependent variables are demographic and income variables. The independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Robust standard errors are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Log(Income)	Age	Sex	Educ.	Married	N. persons
Avg. Crop share – Parents	0.315***	2.134***	-0.042***	1.277***	0.036***	-0.261***
	(0.036)	(0.460)	(0.014)	(0.064)	(0.014)	(0.042)
Robust std. error	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.031	0.066	0.004	0.097	0.004	0.034
Obs.	5567	5638	5638	5638	5638	5638

Table 6: Cropland share and home ownership by individuals – Baseline

This table provides estimates of Equation (5) at the individual-level. The dependent variable is a dummy variable equal to one for home owners. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Owner	Owner	Owner	Owner
Avg. Crop share – Parents	0.100***	0.102***	0.100***	0.061***
	(0.018)	(0.026)	(0.027)	(0.021)
Age				0.012***
				(0.003)
Age squared				-0.000
				(0.000)
Sex				-0.034**
				(0.013)
N. persons in household				0.041***
				(0.005)
Log(Income)				0.063***
				(0.010)
Clus. std. error	Yes	Yes	Yes	Yes
State FE	No	No	Yes	Yes
Metropolitan FE	No	No	Yes	Yes
Marital status FE	No	No	Yes	Yes
Education level FE	No	No	Yes	Yes
Race FE	No	No	Yes	Yes
Adj. R2	0.012	0.010	0.125	0.208
Obs.	25792	5456	5419	5347

Table 7: Cropland share and home ownership by individuals – Robustness I

This table provides evidence for the robustness of the estimates of Equation (5) in Table 6. The dependent variable is a dummy variable equal to one for home owners. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Columns (1) and (2) respectively exclude individuals whose parents come from countries in which total agricultural land (sum of cropland and pasture) represents less than 20% or more than 45% of the country's surface. Column (3) uses the variable *CropShare* as of year 1800 as independent variable. Column (4) interacts the coefficient of interest, on *CropShare*, with a dummy variable equal to one for countries which are above the sample median in terms of both the share of agricultural land and of urbanization. Column (5) excludes individuals working in the agricultural sector. Column (6) uses, as independent variable, a dummy variable equal to one for countries which are above the sample median in terms of their ratio of land motifs over cattle motifs in local folklore. Individual controls include: age, age squared, sex, the number of persons in the household and the log of income. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Owner	Owner	Owner	Owner	Owner	Owner
Avg. Crop share – Parents	0.066**	0.109***		0.075**	0.062***	
	(0.025)	(0.029)		(0.031)	(0.021)	
Avg. Crop share in 1800 – Parents			0.045**			
			(0.018)			
Avg. Crop share * High Agric. and High Urban.				-0.051		
				(0.065)		
High Agric. and High Urban.				-0.022		
				(0.030)		
High Land/Cattle motives in folklore						0.045*
						(0.025)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Excluding Agric. < 0.2	Yes	No	No	No	No	No
Excluding Agric. > 0.45	No	Yes	No	No	No	No
Excluding agriculture	No	No	No	No	Yes	No
Clus. std. error	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.203	0.252	0.206	0.203	0.208	0.208
Obs.	4299	2565	4942	4299	5317	5357

Table 8: Cropland share and home ownership by individuals – Robustness II

This table provides evidence for the robustness of the estimates of Equation (5) in Table 6. The dependent variable is a dummy variable equal to one for home owners. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Column (1) excludes individuals who have at least one parent born in Mexico. Column (2) excludes individuals who have at least one parent born in Central or South America. Column (3) excludes individuals who have at least one parent born in Australia or New Zealand. Column (4) includes $State \cdot Metropolitan$ fixed effects. In column (5), standard errors are clustered at the income group level, in addition to clustering at the level of the father's country of origin. Column (6) included a migration fixed effect in addition to other baseline fixed effects, that is, isolates variation within individuals who did or did not move across US state boundaries within the last year. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Owner	Owner	Owner	Owner	Owner	Owner
Avg. Crop share – Parents	0.074**	0.077**	0.062***	0.061***	0.061***	0.062***
	(0.029)	(0.029)	(0.021)	(0.022)	(0.020)	(0.021)
Age	0.016***	0.017***	0.012***	0.012***	0.012***	0.009***
	(0.005)	(0.005)	(0.003)	(0.003)	(0.003)	(0.003)
Age squared	-0.000	-0.000*	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-0.017	-0.008	-0.034***	-0.035***	-0.034***	-0.033***
	(0.018)	(0.020)	(0.013)	(0.013)	(0.012)	(0.012)
N. persons in household	0.047***	0.047***	0.041***	0.041***	0.041***	0.036***
	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)
Log(Income)	0.053***	0.044***	0.063***	0.063***	0.063**	0.063***
	(0.011)	(0.010)	(0.010)	(0.010)	(0.027)	(0.010)
Excluding Mexico	Yes	No	No	No	No	No
Excluding Latin America	No	Yes	No	No	No	No
Excluding AUS and NZL	No	No	Yes	No	No	No
Clus. std. error	Yes	Yes	Yes	Yes	Yes	Yes
Income group cluster	No	No	No	No	Yes	No
State FE	Yes	Yes	Yes	No	Yes	Yes
Metropolitan FE	Yes	Yes	Yes	No	Yes	Yes
State*Metropolitan FE	No	No	No	Yes	No	No
Marital status FE	Yes	Yes	Yes	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes
Migration FE	No	No	No	No	No	Yes
Adj. R2	0.237	0.244	0.208	0.208	0.208	0.227
Obs.	2994	2702	5342	5344	5347	5347

Table 9: Cropland share and home ownership by individuals – With country-of-origin controls

This table provides evidence for the robustness of the estimates of Equation (5) in Table 6. The dependent variable is a dummy variable equal to one for home owners. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. In column (1), additional controls variables, at the level of the parents' countries of origin, are jointly added: GDP per capita, wealth inequality, an index of democracy, an index of respect for the rule of law. In column (2), I control for the home ownership rate in the parents' countries of origin. In columns (3) and (4), the coefficient of interest, on *CropShare*, is interacted respectively with a dummy variable taking a value of one for countries which are communist today, and for countries that were part of USSR. Individual controls include: age, age squared, sex, the number of persons in the household and the log of income. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Owner	Owner	Owner	Owner
Avg. Crop share – Parents	0.070***	0.058**	0.043***	0.062***
	(0.020)	(0.024)	(0.015)	(0.022)
GDP per capita – Parents	0.003***			
	(0.001)			
Wealth inequality – Parents	0.168			
	(0.126)			
Democracy – Parents	0.017			
	(0.024)			
Rule of law – Parents	-0.040			
	(0.026)			
Home ownership rate – Parents		-0.001		
		(0.002)		
Avg. Crop share * Communist Today			0.092***	
			(0.020)	
Communist Today			0.079***	
			(0.016)	
Avg. Crop share * Former USSR				0.078
				(0.157)
Former USSR				-0.063
				(0.118)
Individual controls	Yes	Yes	Yes	Yes
Clus. std. error	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes
Adj. R2	0.191	0.208	0.208	0.207
Obs.	4173	2973	4943	5347

Table 10: Home ownership in the US and in the country of origin – Decomposition analysis

This table estimates the relationship between home ownership by second-generation immigrants in the US and the home ownership rate in their parents' country of origin. The dependent variable is a dummy variable equal to one for home owners. Home ownership rates in their country of origin are decomposed into a part which is linearly predicted based on soil properties (measured with subsoil organic carbon), and an "excess" part unrelated to soil properties. Columns (1), (2), (4), (5), (6) and (8) estimate specifications in the sample of countries for which home ownership rates in the countries of origin are available. Columns (3) and (7) also includes countries in which home ownership is not available, but predicted based on soil properties. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Columns (1) to (4) and (5) to (8) are respectively without and with individual controls. Individual controls include: age, age squared, sex, the number of persons in the household and the log of income. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Owner	Owner	Owner	Owner	Owner	Owner	Owner	Owner
Pred. Own. Rate	2.179***	2.190***	1.597***		0.613	0.621*	0.971***	
	(0.560)	(0.553)	(0.412)		(0.370)	(0.343)	(0.336)	
Excess Own. Rate	-0.080			-0.112	-0.072			-0.078
	(0.216)			(0.253)	(0.129)			(0.140)
Individual controls	No	No	No	No	Yes	Yes	Yes	Yes
Clus. std. error	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.122	0.122	0.125	0.114	0.206	0.206	0.208	0.206
Obs.	2876	2876	5420	2876	2833	2833	5348	2833

Table 11: Cropland share and home ownership by individuals – IV estimation

This table reports estimates from the instrumental variable (IV) regression in Section C.. Panel A reports estimates for the first-stage estimation and Panel B for the second-stage estimation. The average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin is instrumented using average subsoil organic carbon in these countries. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Individual controls include: age, age squared, sex, the number of persons in the household and the log of income. Robust standard errors are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A: First stage

	Crop. share	Crop. share	Crop. share
Subsoil org. carbon – Parents	0.123***	0.108***	0.104***
	(0.008)	(0.008)	(0.010)
GDP per capita – Parents			0.000
			(0.001)
Individual controls	No	Yes	Yes
Robust std. error	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes
Race FE	Yes	Yes	Yes
F-stat	219.138	61.901	51.002
Adj. R2	0.323	0.341	0.351
Obs.	5419	5347	5250

Panel B: Second stage

	Owner	Owner	Owner
Instr. crop. share – Parents	0.124***	0.049**	0.044*
	(0.023)	(0.023)	(0.023)
GDP per capita – Parents			0.000
			(0.001)
Individual controls	No	Yes	Yes
Robust std. error	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes
Race FE	Yes	Yes	Yes
Obs.	5422	5350	5253

Figure 1: Cropland share – Global data

This figure plots an histogram of the main independent variable *CropShare*, defined in Equation (1), computed in the cross-section of countries at the global level. Negative values correspond to countries dominated by pasture and positive values to countries dominated by cropland. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

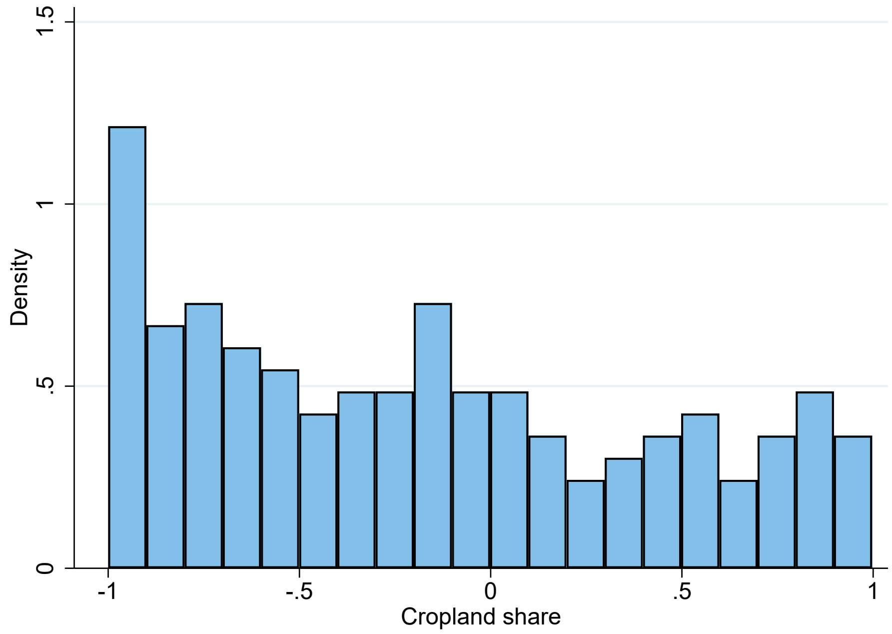


Figure 2: Cropland share – Global data

This figure maps data on cropland share, measured by the variable *CropShare*, at the country level. This variable is defined in Equation (1). Values closer to -1 (respectively 1) correspond to countries in which pasture (respectively cropland) dominates in relative terms. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

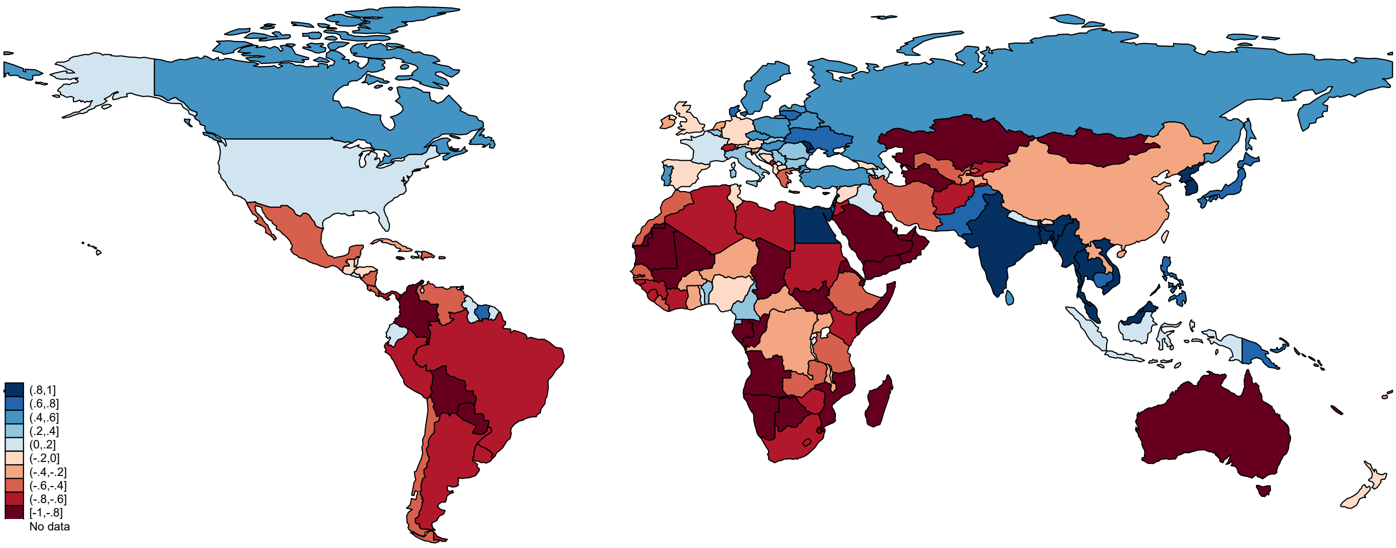
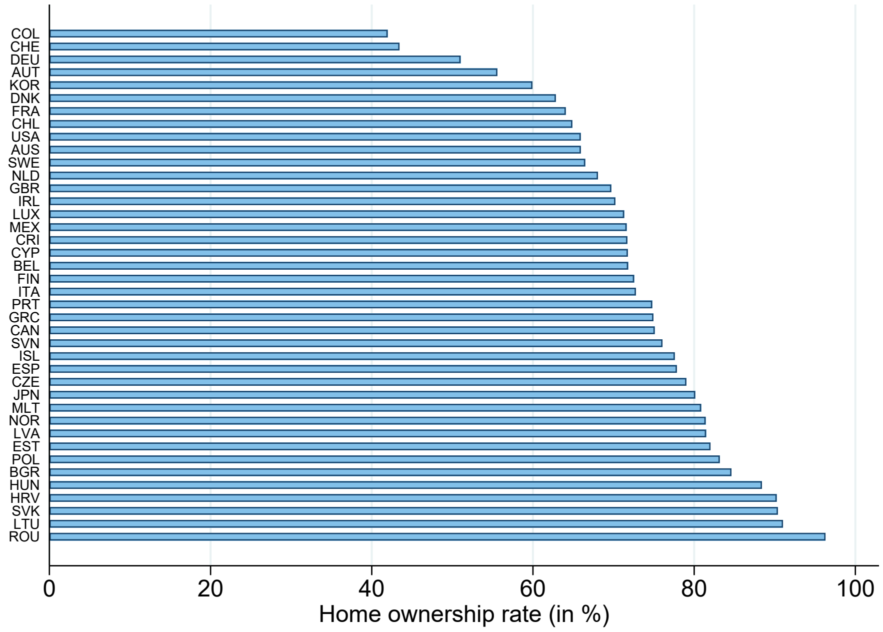


Figure 3: Home ownership rate – OECD countries

This figure plots the average home ownership rate for OECD countries over the period from 2010 to 2020. The data combines outright ownership and ownership with a mortgage. Additional details on the data sources and on the construction of the variables are provided in Appendix A.



Internet Appendix

A Data sources and definition of the variables

This appendix provides additional information on the datasets used in the analysis and on the construction of the variables.

A.1 Data on folklore

I obtain data on folklore from Michalopoulos and Xue (2021). They coded data from the anthropologist and folklorist Yuri Berezkin, which compiles "motifs" across 958 world societies in his *Folklore and Mythology Catalog* (see notably Berezkin, 2015). As explained by Michalopoulos and Xue (2021, p. 1995), "a motif, according to the author, is an episode or an image found in the set of narratives recorded in an ethnolinguistic community". These data can then be used to study whether folkloric motives are, among many other concepts, "land related" or "cattle related".

Specifically, from the replication package by Michalopoulos and Xue (2021), I use the file called "Concept_Frequencies_Countries.dta". I compute the frequency of land-related motifs as the ratio between the variables called *land_related* and *motifs_total*, and the frequency of cattle-related motifs as the ratio between the variables called *cattle_related* and *motifs_total*.

A.2 Data from the OECD

From the OECD, I retrieve three series of data. The main one contains housing tenure data from the Affordable Housing Database. It is available for the following 41 countries: Australia, Austria, Belgium, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republik, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. Out of these countries, Turkey has missing data for home ownership with mortgages, and is thus excluded. The OECD provides data on housing tenures as a share of either households or total population. I use figures expressed as a share of population. For all countries, I compute home ownership rate as the sum of the two variables "Own outright" and "Owner with mortgage". I then take the average of this rate for all years in which it is available over the 2010-2020 period. When matching these data to data on land use, a few additional observations may be lost, which explains why the number of observations is between 35 and 40 in Table 2.

The second dataset obtained from the OECD contains data on agricultural land use by country. I retrieve data on the total area of cropland and pasture by country from 1985 to 2020. I compute the variable *CropShare* as the average of the ratio in Equation (1) for all years in which the data is available. These data are used only to confirm the results established using my main data on land use, described below in Appendix Section A.4.

The third dataset obtained from the OECD containts data on employment by activity for the year 2020. I compute the share of workers in agriculture as the number of workers in agriculture over total workers (agriculture, industry including construction, manufacturing, services).

A.3 Data at European NUTS-2 level

From Eurostat, I obtain data on home ownership, land use, GDP per capita, income inequality and urbanization by NUTS-2 regions. Data on ownership is from the sheet called "Private households by type, tenure status and NUTS 2 region". Home ownership at the NUTS-2 level is computed as the ratio of home owners over the all tenure types. The *CropShare* variable at the NUTS-2 level is computed using data from the sheet called "Land cover overview by NUTS-2 regions", that contains data on cropland and grassland areas. Data on GDP per capita within NUTS-2 regions are from the sheet called "Regional gross domestic product (PPS per inhabitant) by NUTS-2 regions". Using this variable, I construct GDP groups as terciles of this variable. Data on income inequality are from the sheet called "Income quintile share ratio S80/S20 by NUTS-2 region". Data on urbanization are from the sheet called "Number of households by degree of urbanisation and NUTS-2 region". I compute the urbanization rate as the ratio of the population living in "cities" and "towns and suburbs" over total population.

A.4 Data on global land use

Data on global land use is obtained from Taylor and Rising (2021), as recompiled by Our World in Data under the header "Cropland and pasture per person, World". It contains information on pasture and cropland in hectares per person for the period between 1800 and 2010. I compute *CropShare* as the average of yearly observations for the ratio defined in Equation (1).

To test the reliability of these data, I compare it with data provided by the OECD on land use for 48 countries (as described in Appendix Section A.2). In this subsample of countries, the correlation between the two measures of *CropShare* is equal to 88.8%. This high correlation is reassuring, since it is obtained from two independent sources, and computed on two distinct time periods (1800-2010 for the global data, 1985-2020 for the OECD data).

To measure the share of a country's total surface covered by both cropland and pasture, I construct a measure of total surface per capita. To do so, I obtain data on land area from the FAO and on population from the United Nations' World Population Prospects. I compute the share of grassland plus pasture over total land as of 2010 for each country.

A.5 Data from the Current Population Survey

From the US Census, I download datasets from the March Supplement (or Annual Social and Economic Supplements) of the Current Population Survey for 2022, 2023 and 2024. For each household, I keep only the reference person (variable *perrp* equal to 40 or 41). In case the same person shows up in multiple waves of the sample, I keep only the latest observation. The March Supplement contains datasets at both the household and the person levels. I match these datasets (using the variable *h_seq*) after retrieving the following variables. First, at the household level:

- **Owner**: This variable is a dummy that takes value 1 if the variable *h_tenure* (tenure) is equal to "Owned or being bought", and 0 otherwise.
- **State**: Variable *gestfips*.
- **Metropolitan**: Variable *gtmetsta*. The few observations for which the metropolitan status is missing are excluded.
- **Number of persons in the household**: Variable *h_numper*.
- **Log(Income)**: This is the logarithm of variable *htotval* (total household income).
- **Income group**: Variable *hhinc*.

Second, at the person level:

- **Country of birth of the father**: Variable *pefntvty*. It is then converted to the country's ISO code for matching with other datasets.
- **Country of birth of the mother**: Variable *pemntvty*. It is then converted to the country's ISO code for matching with other datasets.
- **Country of birth**: Variable *penatvty*.
- **Age**: Variable *a_age*. This variable is also used to compute the variable *Age squared*.
- **Sex**: Variable *a_sex*. This variables takes value 1 for males and 2 for females.
- **Marital status**: Variable *a_maritl*. This variable takes distinct values for (i) married - civilian spouse present, (ii) married - Armed Forces spouse present, (iii) married - spouse absent (exc. separated), (iv) widowed, (v) divorced, (vi) separated, (vii) never married. I transform it into a dummy variable equal to 1 if the respondent is married (corresponding to cases i, ii, and iii).
- **Education level**: The variable *a_hga* is recoded to take four distinct values for educational attainment (i) below high school, (ii) above or equal to high school but below bachelor, (iii) bachelor, (iv) master or above, including professional school degrees.
- **Race**: The variable *prdtrace* is recoded to take a value of 1 for whites and 0 for others.
- **Agriculture**: The variable *a_mjind* (major industry code) is recoded to take value 1 for persons working in the sector called "Agriculture, forestry, fishing, and hunting".
- **Migration**: The variable *mig_st* is recoded to take value 1 for individuals who moved over the past year and 0 otherwise.

For my main sample, I keep only individuals born in the US whose father and mother are born outside the US.

A.6 Data on GDP per capita

From the World Bank, I obtain country-level data on GDP per capita for 2021, expressed in constant 2015 USD (indicator code *NY.GDP.PCAP.KD*). I keep only the data for the last year available (i.e., 2021) and convert data in thousands USD (to improve the readability of coefficients). This variable is used as a control variable.

A.7 Data on other country-level variables

For robustness tests, I use a number of other country-level variables, which are obtained and/or constructed as follows:

- **Wealth inequality**: Data on wealth inequality is obtained from the World Inequality Database (wid.world). The variable I use is the share of net personal wealth held by the top-10% of the distribution (variable *shweal_p90p100*).
- **Democracy**: From the Quality of Government (QOG) dataset (2025 edition), compiled by the Quality of Government institute at the University of Gotherburg, I retrieve the variable called "democracy status" (*bti_ds*). It measures democracy on a scale of 1 to 10 based on five criteria: stateness, political participation, rule of law, stability of the democratic institutions, and political and social integration.
- **Rule of law**: From the Quality of Government (QOG) dataset (2025 edition), compiled by the Quality of Government institute at the University of Gotherburg, I retrieve the variable called "rule of law" (*bti_rol*). It is a continuous variable measuring whether "state powers check and balance one another and ensure civil rights".
- **Communist today**: From the Quality of Government (QOG) dataset (2025 edition), compiled by the Quality of Government institute at the University of Gotherburg, I retrieve the variable called "Is the country's regime communist / socialist" (*br_com*). It takes value 1 for communist / socialist regimes and zero otherwise.
- **Former USSR**: Dummy variable equal to 1 if one of the parents is from the following countries, and zero otherwise: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.
- **Urbanization rate**: I obtain the variable called "Share of population residing in urban areas" from Our World in Data for 2010. It provides country-level estimates of the urbanization rate from raw data from the United Nations.

A.8 Data on cultural traits

To measure various cultural traits at a country-level, I rely on the highly recognized work by Geert Hofstede (see, among others, Hofstede et al., 2010). The raw data is available from Geert Hofstede's website (geerthofstede.com/research-and-vsm/dimension-data-matrix/). I make use of all six dimensions studied by Hofstede. Below are brief descriptions of these cultural traits, as obtained from Hofstede's website:

- **Power distance**: "Power Distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally."
- **Individualism**: "Individualism is the extent to which people feel independent, as opposed to being interdependent as members of larger wholes."
- **Masculinity**: "Masculinity is the extent to which the use of force in endorsed socially."
- **Uncertainty avoidance**: "Uncertainty avoidance deals with a society's tolerance for uncertainty and ambiguity."
- **Long-term orientation**: "In a long-time-oriented culture, the basic notion about the world is that it is in flux, and preparing for the future is always needed. In a short-time-oriented culture, the world is essentially as it was created, so that the past provides a moral compass, and adhering to it is morally good."
- **Indulgence**: "In an indulgent culture it is good to be free. Doing what your impulses want you to do, is good. Friends are important and life makes sense. In a restrained culture, the feeling is that life is hard, and duty, not freedom, is the normal state of being."

A.9 Data from the Harmonized World Soil Database

From the Food and Agriculture Organization, I download the Harmonized World Soil Database (HWSD). These data consist of a raster providing a number of soil properties for every 0.25 degree (approximately 5 km by 5 km) for the entire earth. Using the QGIS software, I assign a point to each cell in the raster and obtain the longitude and latitude of each point, which I then map to country shapefiles in Stata. I then average data at the country level for each soil property. I follow this procedure to obtain data on the following property:

- **Subsoil organic carbon**: Variable *S_OC*. I use the guidelines provided by the HWSD *Technical Report and Instructions* (Version 1.1, dated March 2009, p. 14) to assign values to five distinct groups based on the percentage of subsoil organic carbon: (i) below 0.2%, (ii) between 0.2% and 0.6%, (iii) between 0.6% and 1.2%, (iv) between 1.2% and 2%, (v) above 2%.

B Appendix tables and figures

Table A1: Countries of origin of sample immigrants – Descriptive statistics

This table provides descriptive statistics on the countries of origin of US immigrants observed in the CPS dataset. "Share Obs." is the share of observations for which one of the two parents was born a specific country. "Own. rate" is the ownership rate at the country-level, as measured in data from the OECD. "Crop share" measures the relative importance of cropland and pasture at the country level, as defined in Equation (1). "Org. carb" measures the average subsoil organic carbon at the country level, as defined in Section A.. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Share Obs.	Own. rate	Crop share	Org. carb.
Afghanistan	0.001	.	-0.678	1
Albania	0.001	.	-0.089	2
Algeria	0.000	.	-0.734	1
Argentina	0.004	.	-0.765	2
Armenia	0.001	.	0.158	2
Australia	0.001	65.943	-0.901	2
Austria	0.002	55.587	-0.174	2
Bangladesh	0.002	.	0.907	4
Belarus	0.001	.	0.562	5
Belgium	0.001	71.806	0.282	2
Belize	0.001	.	-0.015	3
Bolivia	0.001	.	-0.906	2
Bosnia and Herzegovina	0.001	.	-0.190	2
Brazil	0.002	.	-0.748	2
Bulgaria	0.000	84.634	0.349	2
Cambodia	0.004	.	0.771	2
Canada	0.015	75.109	0.585	5
Chile	0.001	64.885	-0.533	4
China	0.044	.	-0.215	2
Colombia	0.012	41.977	-0.805	3
Costa Rica	0.002	71.719	-0.499	4
Croatia	0.002	90.243	0.167	2
Cuba	0.021	.	-0.249	2
Czechia	0.002	79.038	0.543	2
Denmark	0.001	62.842	0.665	2
Dominican Republic	0.017	.	-0.554	2
Ecuador	0.006	.	0.189	3
Egypt	0.002	.	0.997	1
Ethiopia	0.002	.	-0.553	2
Fiji	0.000	.	-0.378	2
France	0.002	64.077	0.162	2
Georgia	0.000	.	-0.044	2

Table A2: Countries of origin of sample immigrants – Descriptive statistics - Continued

This table continues Table A1.

	Share Obs.	Own. rate	Crop share	Org. carb.
Germany	0.016	51.024	-0.101	5
Ghana	0.002	.	-0.392	2
Greece	0.006	74.946	-0.461	2
Guatemala	0.014	.	-0.007	3
Guyana	0.003	.	0.037	5
Haiti	0.010	.	0.067	2
Honduras	0.008	.	-0.130	2
Hungary	0.004	88.416	0.578	4
India	0.029	.	0.923	2
Indonesia	0.001	.	0.142	5
Iran	0.005	.	-0.449	2
Iraq	0.001	.	0.092	2
Ireland	0.007	70.230	-0.329	5
Israel	0.002	.	0.735	2
Italy	0.023	72.776	0.277	2
Jamaica	0.009	.	-1.000	2
Japan	0.013	80.135	0.620	2
Jordan	0.001	.	-0.602	2
Kenya	0.001	.	-0.765	2
Lao	0.011	.	-0.241	2
Latvia	0.001	81.482	0.415	4
Lebanon	0.002	.	0.856	2
Liberia	0.000	.	-0.583	2
Libya	0.000	.	-0.723	1
Lithuania	0.001	91.029	0.711	4
Mexico	0.377	71.624	-0.481	2
Myanmar	0.001	.	0.938	2
Netherlands	0.003	68.068	-0.245	5
Nicaragua	0.005	.	-0.416	3
Nigeria	0.007	.	-0.022	2
North Macedonia	0.000	.	-0.128	2
Pakistan	0.006	.	0.654	1

Table A3: Countries of origin of sample immigrants – Descriptive statistics – Continued

This table continues Table A1.

	Share Obs.	Own. rate	Crop share	Org. carb.
Panama	0.002	.	-0.612	3
Peru	0.005	.	-0.675	2
Philippines	0.041	.	0.706	2
Poland	0.014	83.181	0.535	5
Portugal	0.008	74.801	0.585	2
Puerto Rico	0.067	.	-0.451	3
Republic of Korea	0.019	59.941	0.981	1
Romania	0.002	96.303	0.358	3
Russian Federation	0.005	.	0.409	5
Salvador	0.026	.	0.083	3
Senegal	0.000	.	-0.565	2
Serbia	0.003	.	0.372	2
Sierra Leone	0.001	.	-0.678	2
Slovakia	0.001	90.392	0.220	2
South Africa	0.000	.	-0.796	2
Spain	0.003	77.858	-0.012	2
Sudan	0.001	.	-0.727	1
Sweden	0.002	66.486	0.465	4
Switzerland	0.002	43.448	-0.659	2
Syria	0.001	.	-0.106	2
Taiwan	0.011	.	-0.151	2
Tanzania	0.000	.	-0.596	3
Thailand	0.004	.	0.856	2
Trinidad and Tobago	0.003	.	0.860	2
Turkiye	0.001	.	0.414	2
Ukraine	0.002	.	0.761	3
United Kingdom	0.002	69.721	-0.196	5
Venezuela	0.002	.	-0.530	2
Viet Nam	0.026	.	0.809	3
Yemen	0.001	.	-0.853	1

Table A4: Cropland share and state-to-state migration by individuals

This table provides estimates of Equation (5) at the individual-level, but with a measure of state-to-state migration as dependent variable. The dependent variable is a dummy variable equal to one for individuals that have moved from one state to another during the preceding year. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

	Migration	Migration	Migration	Migration	Migration
Avg. Crop share – Parents	0.007	0.008	0.009	0.018**	0.015*
	(0.010)	(0.011)	(0.011)	(0.009)	(0.009)
Age				-0.011***	-0.011***
				(0.001)	(0.001)
Age squared				0.000***	0.000***
				(0.000)	(0.000)
Sex				0.001	0.000
				(0.006)	(0.006)
N. persons in household				-0.021***	-0.021***
				(0.002)	(0.002)
Log(Income)				-0.002	-0.002
				(0.003)	(0.003)
GDP per capita – Parents					0.000*
					(0.000)
Clus. std. error	Yes	Yes	Yes	Yes	Yes
State FE	No	No	Yes	Yes	Yes
Metropolitan FE	No	No	Yes	Yes	Yes
Marital status FE	No	No	Yes	Yes	Yes
Education level FE	No	No	Yes	Yes	Yes
Race FE	No	No	Yes	Yes	Yes
Adj. R2	0.000	0.000	0.019	0.060	0.061
Obs.	25740	5455	5415	5336	5210

Table A5: Cropland share and home ownership by individuals – With culture-of-origin controls

This table provides evidence for the robustness of the estimates of Equation (5) in Table 6. Panel A describes the six dimensions of a country's culture used in the analysis. In Panel B, the dependent variable is a dummy variable equal to one for home owners. The main independent variable is the average value of *CropShare* – measuring the relative importance of cropland and pasture, as defined in Equation (1) – for the individual's parents' countries of origin. The regressions are estimated in a sample of second-generation immigrants from the Current Population Survey, that is, individuals born in the US but whose both parents are born outside the US. In columns (1) to (6) additional controls variables capturing a dimension of culture, at the level of the parents' countries of origin, are sequentially added: respectively, power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence. Individual controls include: age, age squared, sex, the number of persons in the household and the log of income. Standard errors, clustered at the level of the father's country of origin, are in parentheses. *, ** and *** denote respectively statistical significance at the 10%, 5% and 1% levels. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

Panel A: Descriptive statistics

	Min.	10th	25th	Mean	Median	75th	90th	Max.	St. dev.	Obs.
Power distance	11.0	50.0	66.0	73.0	81.0	81.0	81.0	104.0	15.5	4502
Individualism	6.0	18.0	27.0	33.5	30.0	32.0	60.0	90.0	16.6	4502
Masculinity	5.0	40.0	56.0	61.7	69.0	69.0	69.0	110.0	13.2	4502
Uncertainty avoidance	13.0	30.0	64.0	71.6	82.0	82.0	92.0	112.0	21.3	4502
Long-term orientation	0.0	13.1	24.2	35.6	24.2	50.9	86.4	100.0	25.3	4877
Indulgence	0.0	26.1	40.4	70.1	90.0	97.3	97.3	100.0	30.5	4874

Panel B: Regressions controlling for other cultural traits

	Owner	Owner	Owner	Owner	Owner	Owner
Avg. Crop share – Parents	0.043*	0.041*	0.043**	0.036*	0.065***	0.061**
	(0.022)	(0.025)	(0.020)	(0.021)	(0.023)	(0.025)
High power distance	0.005					
	(0.021)					
High individualism		0.001				
		(0.025)				
High masculinity			0.003			
			(0.031)			
High uncertainty avoidance				-0.040**		
				(0.018)		
High long-term orientation					0.048*	
					(0.027)	
High indulgence						-0.035
						(0.030)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Clus. std. error	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Metropolitan FE	Yes	Yes	Yes	Yes	Yes	Yes
Marital status FE	Yes	Yes	Yes	Yes	Yes	Yes
Education level FE	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.197	0.197	0.197	0.198	0.207	0.207
Obs.	4355	4355	4355	4355	4725	4721

Figure A1: Persistence of the cropland share – Global data

This figure plots the variable *CropShare* computed in 2010 against the same variable computed in 1800. This variable, defined in Equation (1), measures the relative importance of cropland and pasture in land use. Each observation corresponds to a distinct country. Additional details on the data sources and on the construction of the variables are provided in Appendix A.

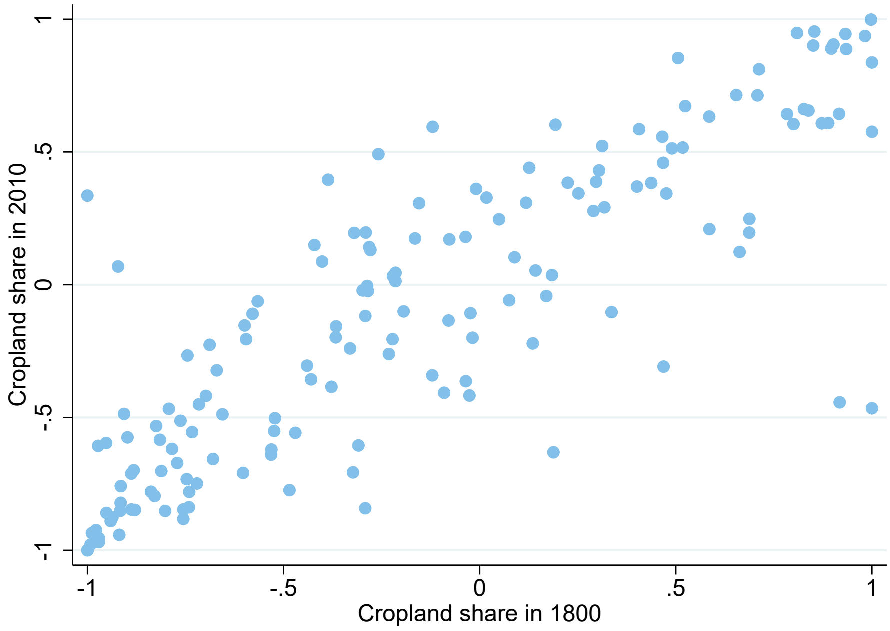


Figure A2: Subsoil organic carbon – Global data

This figure maps data on the average percentage of subsoil organic carbon at the country level. Country-level data is obtained by collapsing highly detailed data from the Harmonized World Soil Database. Additional details on the data sources and on the construction of the variables are provided in Appendix A.