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ESSAYS ON THE POLITICAL ECONOMY OF LAND INEQUALITY IN EGYPT

Supervised by: Thomas PIKETTY and Mohamed SALEH

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Analyse et Politique Économiques

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ESSAIS SUR L'ÉCONOMIE POLITIQUE DES INÉGALITÉS FONCIÈRES EN ÉGYPTE

Sous la direction de : Thomas PIKETTY et Mohamed SALEH

Date de soutenance : 1er juillet 2026

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إلى جدي عبد العزيز، رحمه الله،
الذي وهب حياته لأرضه

In loving memory of my grandfather, Abd-El Aziz,

who devoted his life to his land.

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Summary

This dissertation analyzes the political economy of land inequality in Egypt across two centuries, from a historical and institutional perspective.

The first chapter constructs a novel dataset of private agricultural landholdings by digitizing land tax tabulations from the Ministry of Finance (*mukallafat*) and applying Generalized Pareto Interpolation to recover the full distribution of land ownership at national and provincial levels from 1896 to 2020. Land ownership was highly concentrated at the start of the twentieth century, with the top 1% holding 45 to 47% of private agricultural land. I show this concentration was institutionally produced, driven by the nineteenth-century dual land classification system, state land sales following the 1876 fiscal crisis, and foreign ownership, rather than by ecological endowments or crop suitability. The 1952 agrarian reform produced the only sustained redistributive episode, reducing the top 1% share to 27% by 1970, with small and lower-middle landholders as principal beneficiaries and the landless population largely excluded. By 2020, the top 1% share had risen to 33%; the timing of this re-expansion, beginning fourteen years after ownership ceilings were lifted in 1978 and coinciding with the 1992 dismantling of tenancy protections, points to tenancy regulation rather than ceilings as the institution through which the reform's gains were maintained.

The second chapter, co-authored with Mohamed Saleh (LSE) and Allison Spencer Hartnett (USC), estimates the political effects of the 1952 reform on parliamentary turnover. We construct a new dataset of Egyptian MPs from 1936 to 1976, matched at individual and family level, combined with district-level measures of redistribution intensity from the 1961 Agricultural Census. Redistribution persistently raised cycle-to-cycle turnover in high-redistribution districts, by five to ten percentage points at the MP level and up to eleven and a half at the family level. However, the entry of new political actors did not rise differentially with redistribution intensity in any post-reform cycle. Convergence in turnover was driven instead by higher circulation among returnees: leveling the local landholding hierarchy kept incumbency fragile

without expanding the pool of competitive actors. Redistribution disrupted the incumbency advantage of the landed elite without producing political opening, as seats vacated by the elite were absorbed by the medium-landholder stratum whose holdings fell below the expropriation ceiling.

The third chapter, co-authored with Mohamed Saleh (LSE), traces the survival of political dynasties across four regimes from 1824 to 2020. We construct a dataset covering the near-complete universe of Egyptian parliamentarians across 44 cycles, drawing on Subhi (1947) and the Egyptian Parliamentary Archives, organized around a typology of founders, heirs, self-made MPs, and single-timers. Egypt's parliament has been dynastic throughout its modern history: most dynasties were founded in the first half-century of parliamentary life, and from the colonial period onward the chamber was populated overwhelmingly by heirs. At every regime transition, the most recently ascendant cohort suffered the largest losses while older cohorts passed through with little disturbance, and pre-1882 dynasties retained roughly twenty percent of seats into the contemporary period. The reproductive logic transformed in 1952: temporary absence gave way to permanent exit, and the spatial cartel structure of monarchy-era dynasties collapsed even as aggregate dynastic presence was maintained. Dynastic survival was sustained through credential conversion, from landed notability to technocratic expertise under Nasser and from technocratic expertise to private business networks under Mubarak, while the local intermediary function these families performed made co-optation less costly for each incoming regime than wholesale replacement.

Keywords: land inequality, agrarian reform, Egypt, economic history, political dynasties, parliamentary representation, elite persistence, Pareto interpolation.

Résumé

Cette thèse analyse l'économie politique des inégalités foncières en Égypte sur près de deux siècles, dans une perspective historique et institutionnelle.

Le premier chapitre construit une nouvelle base de données sur la propriété foncière agricole privée en numérisant les tabulations fiscales foncières du ministère des Finances (*mukallafat*) et en appliquant une méthode d'interpolation de Pareto généralisée afin de reconstituer la distribution complète de la propriété foncière aux niveaux national et provincial entre 1896 et 2020. La propriété foncière était fortement concentrée au début du XX^{e} siècle, les 1 % les plus grands propriétaires détenant entre 45 et 47 % des terres agricoles privées. Je montre que cette concentration fut produite institutionnellement, sous l'effet du système dual de classification foncière du XIX^{e} siècle, des ventes de terres de l'État consécutives à la crise fiscale de 1876 et de la propriété étrangère, plutôt que par des dotations écologiques ou l'aptitude des sols aux cultures. La réforme agraire de 1952 constitue le seul épisode redistributif durable observé sur la période : la part détenue par les 1 % les plus riches recule à 27 % en 1970, les principaux bénéficiaires étant les petits et moyens propriétaires ruraux, tandis que la population sans terre demeure largement exclue. En 2020, la part des 1 % remonte à 33 %. Le calendrier de cette recomposition des inégalités — amorcée quatorze ans après la levée des plafonds de propriété en 1978 et coïncidant avec le démantèlement des protections des fermiers en 1992 — suggère que la régulation des rapports locatifs, plus que les plafonds de propriété eux-mêmes, constituait l'institution centrale à travers laquelle les acquis redistributifs de la réforme avaient été maintenus.

Le deuxième chapitre, coécrit avec Mohamed Saleh (LSE) et Allison Spencer Hartnett (USC), estime les effets politiques de la réforme de 1952 sur le renouvellement parlementaire. Nous construisons une nouvelle base de données sur les députés égyptiens entre 1936 et 1976, appariés au niveau individuel et familial, combinée à des mesures de l'intensité de la redistribution à l'échelle des districts issues du recensement agricole de 1961. La redistribution augmente durablement le turnover parlementaire dans les districts fortement redistribués, de cinq à dix points

de pourcentage au niveau des députés et jusqu'à onze points et demi au niveau des familles politiques. Toutefois, l'entrée de nouveaux acteurs politiques n'augmente pas davantage dans les districts les plus redistribués, et ce dans aucun cycle électoral postérieur à la réforme. La convergence du turnover s'explique plutôt par une circulation accrue des acteurs déjà présents : l'aplanissement de la hiérarchie foncière locale fragilise les positions acquises sans élargir le groupe des acteurs réellement compétitifs. La redistribution affaiblit ainsi l'avantage politique des grands propriétaires fonciers sans produire d'ouverture politique effective, les sièges abandonnés par l'élite foncière étant captés par la strate des propriétaires moyens dont les terres demeuraient en dessous du seuil d'expropriation.

Le troisième chapitre, coécrit avec Mohamed Saleh (LSE), retrace la survie des dynasties politiques à travers quatre régimes entre 1824 et 2020. Nous construisons une base de données couvrant la quasi-totalité des parlementaires égyptiens sur 44 cycles parlementaires, à partir de Subhi (1947) et des Archives parlementaires égyptiennes, organisée autour d'une typologie distinguant fondateurs de dynastie, héritiers, députés "self-made" et élus d'un seul mandat. Le parlement égyptien a conservé un caractère dynastique tout au long de son histoire moderne : la majorité des dynasties politiques furent fondées durant le premier demi-siècle de vie parlementaire et, à partir de la période coloniale, la chambre est composée de manière écrasante d'héritiers. À chaque transition de régime, la cohorte dynastique la plus récemment ascendante subit les pertes les plus importantes, tandis que les cohortes plus anciennes traversent les ruptures avec relativement peu de perturbations ; les dynasties fondées avant 1882 conservent encore environ 20 % des sièges à l'époque contemporaine. La logique de reproduction de ces dynasties se transforme toutefois après 1952 : l'absence temporaire laisse place à une sortie définitive, et la structure cartellaire locale qui caractérisait les dynasties de l'époque monarchique s'effondre, alors même que la présence dynastique agrégée se maintient au niveau national. Cette survie dynastique repose sur des mécanismes de conversion des ressources sociales et politiques : passage de la notabilité foncière à l'expertise technocratique sous Nasser, puis de l'expertise technocratique aux réseaux d'affaires privés sous Moubarak. La fonction d'intermédiation locale assurée par ces familles rendait leur cooptation moins coûteuse pour chaque nouveau régime que leur remplacement intégral.

Mots-clés : inégalités foncières, réforme agraire, Égypte, histoire économique, dynasties politiques, représentation parlementaire, persistance des élites, interpolation de Pareto.

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General Introduction

In agrarian societies, control over land is also control over political power. Land structures access to credit, employment, local authority, and political representation, allowing landed elites to reproduce in uence across generations (Ziblatt, 2008; Dal Bó et al., 2009; Querubin, 2016; Montalbo, 2023). Egypt before 1952 was an extreme case. The top 1% of private landholders owned close to half of all agricultural land, the bottom 50% effectively held none once landless workers are counted, and parliamentary representation under the constitutional monarchy was drawn almost entirely from the landed elite, the village headmen who served as their local infrastructure, and the families who had accumulated estates through state grants, scal crisis, and the late nineteenth-century cotton boom (Baer, 1962; Abbas and El-Dessouki, 1998). The 1952 agrarian reform was designed to dismantle this order. It expropriated estates above a falling ceiling, abolished religious endowments, redistributed land to tenants and smallholders, and was enacted by a revolutionary regime with no ties to the landed class and every incentive to destroy it (Warriner, 1953; Baer, 1962). Whether the reform displaced the political class it targeted, or merely restructured the hierarchy below it, is the question this dissertation answers.

A foundational claim in political economy holds that land concentration blocks democratization by enabling landed elites to dominate economically dependent populations and to oppose reforms that would expand political access (Boix, 2003; Acemoglu and Robinson, 2006; Deininger and Squire, 1998). The reverse claim, that destroying land concentration should open political access, has rarely been tested directly. Existing work has documented downstream effects of land reform on con ict, clientelism, and voting behavior (Finkel et al., 2015; Domenech and Herreros, 2017; Casaburi et al., 2021; Albertus and Schouela, 2025), but the prior question, whether redistribution actually displaces the political class it targets, has been assumed rather than measured (Albertus, 2015). Whether redistribution opens parliamentary access to genuinely new actors, or reshuf es seats within an existing elite, is the empirical question this dissertation puts to the test.

These questions are particularly important in the Middle East and North Africa, one of the most unequal regions in the world today (Alvaredo et al., 2019). Existing explanations emphasize authoritarian rule, colonial institutions, inheritance systems, and the historical role of religious endowments (Kuran, 2010; Rubin, 2017; Blaydes and Chaney, 2013; Chaney, 2016), yet the long-run quantitative evidence necessary to evaluate these claims remains limited. The European pre-industrial literature on wealth inequality has produced detailed long-run series for several countries (Alfani, 2021; Milanovic et al., 2011; Piketty et al., 2006; Cummins, 2021), but no comparable series exists for any Muslim-majority country, and Milanovic (2023)'s recent taxonomy of pre-industrial social tables contains no Middle Eastern case. This dissertation provides the first long-run land inequality series for a Muslim-majority country, built from fiscal-cadastral evidence at the level of detail underpinning European pre-industrial estimates. It is also the first to combine such a series with a parliamentary panel spanning the same period, allowing the evolution of economic concentration and political representation to be studied jointly within a single institutional setting.

Egypt is a uniquely suitable setting for these questions. The 1952 reform was radical in scope, lowering the ownership ceiling from 200 to 100 to 50 feddans across three phases, abolishing religious endowments, confiscating royal estates, and prohibiting foreign ownership of agricultural land (Warriner, 1953; Baer, 1962). The regime that enacted it had no ties to the landed class and made the dismantling of that class an explicit political project. Egypt is also one of the few countries in the region with parliamentary institutions operating continuously across multiple political regimes, the Muhammad Ali dynasty, the British occupation, the constitutional monarchy, and the republican period, allowing political turnover and dynastic persistence to be traced across nearly two centuries within a single institutional framework (Hartnett and Saleh, 2021). The Egyptian state operated a centralized land tax registry, the mukallafat, that produced annual tabulations of private agricultural land ownership from 1896 onward, and the parliamentary record from 1824 onward is preserved through the work of Subhi (1947) and the Egyptian Parliamentary Archives. The combination of institutional continuity, a radical and identifiable rupture, and a detailed documentary base makes it possible to study redistribution, political turnover, and dynastic persistence as a single joint phenomenon.

The dissertation argues that the reform weakened the dominance of the largest landed elites but did not fundamentally democratize access to landownership or political representation. Redistribution and political turnover were instead absorbed by an intermediary stratum of medium landholders and locally embedded rural notable families positioned between the state and the

countryside, what Binder (1978) termed the second stratum of rural society. This stratum was not created by the reform. Its families had functioned as the local infrastructure of rural governance since before parliament existed, supplying village headmen, tax collectors, and the intermediaries through which the central state reached the countryside (Baer, 1962; Hartnett and Saleh, 2021). They held enough land to sustain political ambition and local networks, but had been historically subordinated by the landed elite above them and the ruler of Egypt. When the reform truncated that upper tier, this stratum was the one positioned to absorb both the redistributed land and the vacated parliamentary seats. The dissertation establishes this argument across three chapters that together trace the economic structure of pre-reform Egypt, the political consequences of the reform, and the long-run persistence of the rural notable families that survived it.

These dynamics unfold across three chapters. Chapter 1 reconstructs the long-run evolution of land inequality in Egypt from 1896 to 2020, identi es the institutional structures that produced pre-reform concentration, shows that the 1952 redistribution owed substantially to medium and medium-large landholders rather than to the rural poor. Chapter 2 examines the political consequences of the reform at the district level, showing that redistribution destabilized incumbency among large landowners without expanding the pool of political actors, with effects concentrated in districts where pre-reform political concentration coexisted with a thick medium-landholder stratum. Chapter 3 extends the analysis backward and forward in time, tracing parliamentary dynasties across 44 cycles between 1824 and 2020 and showing that the intermediary stratum identi ed in Chapter 1 and Chapter 2 was the same stratum that survived every regime transition over nearly two centuries, adapting its credentials from landed notability to bureaucratic competence to private business across regimes.

1. Outline and Summary

Chapter 1 reconstructs the long-run evolution of land inequality in Egypt from 1896 to 2020 using newly digitized scal-cadastral records and agricultural statistics, applying generalized Pareto interpolation (Blanchet et al., 2022) to recover the full distribution at the percentile level and combining the series with population census data on agricultural employment (Saleh, 2026) to incorporate the landless. The chapter documents three phases: extreme concentration before 1952 (top 1% share of 45 to 47%), substantial compression after the reform (top 1% share of 27% by 1970), and renewed concentration following the 1992 dismantling of tenancy protections (top 1% share of 33% by 2020). The chapter shows that redistribution owed substantially

to medium and medium-large landholders rather than to the rural poor, through three channels operating alongside formal expropriation: voluntary sales during the grace period, family subdivision under separate legal titles, and corporate exemptions. It further identifies tenancy regulation, not ownership ceilings, as the institutional mechanism that sustained the redistributive compression for four decades, with the 14-year gap between the 1978 lifting of ceilings and the 1992 dismantling of tenancy as identifying evidence (Bush, 2007; Ayeb, 2010). The chapter therefore establishes both the existence of the medium-landholding stratum and the institutional conditions of its post-reform position, the structural premise on which the political analysis of Chapter 2 builds.

Chapter 2 examines whether the reform translated economic redistribution into political opening. Using district-level measures of redistribution intensity from the 1961 Agricultural Census (Ministry of Agriculture, 1961) merged with a new parliamentary panel, the chapter estimates an event study comparing turnover and entry across districts from 1936 to 1976. The results show that the reform raised cycle-to-cycle MP turnover by 5 to 10 percentage points in high-redistribution districts and family turnover by up to 11.5 points, large enough to close the pre-reform turnover gap. New entry, by contrast, is statistically indistinguishable from zero across all post-reform cycles. The effects are concentrated in districts where pre-reform oligarchic concentration coexisted with a thick medium-landholder stratum just below the expropriation ceiling, identifying this stratum as the structural condition under which the reform produced its political effects (Binder, 1978). The reform truncated the upper tier of the rural political hierarchy and the seats vacated by the landed elite were absorbed by the second stratum below it, rather than by genuinely new political actors. Chapter 3 then asks whether this stratum was historically created by the reform, or whether it was an older structure that the reform merely activated.

Chapter 3 studies parliamentary dynasties across successive Egyptian regimes between 1824 and 2020 using a new parliamentary panel covering 44 cycles, constructed from Subhi (1947) and extended through the Egyptian Parliamentary Archives. The chapter shows that dynasties formed early, with most families established in the first half-century of parliamentary life, and that parliament was overwhelmingly populated by heirs rather than founders from the colonial period onward. Regime change repeatedly reshaped the composition of the elite without eliminating the intermediary notable families that linked the state to the countryside: at each transition, the most recently ascendant cohort suffered the largest losses, while older and more deeply embedded cohorts passed through with comparatively little disturbance, with pre-1882 dynas-

ties retaining roughly 20% of seats into the contemporary period (Hartnett and Saleh, 2021). Dynastic persistence operated through credential conversion, families moving from landed notability under the constitutional monarchy, to bureaucratic and technocratic competence under Nasser, to private business networks under Mubarak (Springborg, 1982; Blaydes, 2011). The Marei family of Sharqiya, in parliament continuously from 1924 to 2020 and the architect of the 1952 reform that targeted families like its own, illustrates the mechanism at the family level. The chapter therefore identi es the intermediary stratum of Chapter 1 and Chapter 2 with a deep historical structure that long predates the reform and that explains why redistribution truncated the rural hierarchy without dismantling it.

2. Data and Methodology

The dissertation draws on three original datasets. The rst is a long-run land inequality series for Egypt covering 1896 to 2020, digitized from the mukallafat scal-cadastral records and the Reports on Agricultural Land Ownership, and combined with population census data on agricultural employment (Saleh, 2026). The second is a district-level measure of land redistribution intensity following the 1952 reform, constructed from the 1961 Agricultural Census (Ministry of Agriculture, 1961) and merged with the parliamentary panel using 1960 administrative boundaries. The third is a parliamentary panel covering the universe of Egyptian MPs across 44 parliamentary cycles between 1824 and 2020, drawn from Subhi (1947) and the Egyptian Parliamentary Archives and matched at both the individual and family level. The empirical strategies vary across chapters: Chapter 1 relies on long-run descriptive analysis and provincial institutional variation, applying generalized Pareto interpolation (Blanchet et al., 2022) to the ownership tabulations; Chapter 2 estimates an event study comparing turnover and entry across districts with different redistribution intensity, with the 1950 to 1952 cycle as the reference; Chapter 3 traces dynastic persistence and credential adaptation across regimes.

3. Overall Contribution

The dissertation makes three main contributions. The rst is conceptual. Existing work on land reform has tested its consequences for con ict, clientelism, and voting (Finkel et al., 2015; Domenech and Herreros, 2017; Casaburi et al., 2021; Albertus and Schouela, 2025), but the prior question of whether redistribution actually displaces the political class it targets has been assumed rather than measured (Albertus, 2015). The dissertation answers this question and proposes a framework, truncation rather than dismantling, under which redistribution can dis-

rupt the dominance of a landed elite without expanding political access beyond the stratum immediately below it. The mechanism operates through the institutional embeddedness of an intermediary rural stratum, what Binder (1978) called the second stratum, whose political authority predates parliament and survives every regime transition because every regime needs it. The dissertation traces this stratum across three units of analysis: as the substantive bene ciary of redistribution (Chapter 1), as the absorber of the political vacuum left by the displaced landed elite (Chapter 2), and as the historical core of Egyptian parliamentary dynasties (Chapter 3).

The second contribution is empirical and methodological. The dissertation constructs the rst long-run land inequality series for a Muslim-majority country at the percentile level, built from scal-cadastral evidence (Alfani, 2021; Milanovic et al., 2011; Milanovic, 2023), and uses it to evaluate a major redistributive land reform within the long-run distributional trajectory of the country it transformed. This approach makes visible features of the reform that short-run or cross-sectional analyses cannot capture: which segments of the distribution captured the redistribution, how durable the effect proved, and which institutional mechanisms sustained or reversed it. The dissertation further provides the rst district-level causal analysis of the political effects of land reform on parliamentary turnover in Egypt, and the rst parliamentary dynasty dataset for any country in the region tracking the same families across multiple regime changes within a single state (Dal Bó et al., 2009; Querubin, 2016). Together, these contributions allow the relationship between economic concentration, political reproduction, and political turnover to be studied jointly across nearly two centuries within a single institutional setting.

The third contribution is historiographical. The ndings revise the historiography of the Egyptian reform in a speci c direction, closer to the Binder (1978) interpretation of medium landholders as the regime's substantive constituency than to either the early view that the reform eliminated the landed elite (Baer, 1962) or the later view that the old elite recaptured political in uence under subsequent regimes (Bush, 1993; Ayeb and Bush, 2015). They also speak to broader debates on inequality and political inclusion (Boix, 2003; Acemoglu and Robinson, 2006; Ziblatt, 2008; Montalbo, 2023): redistribution can disrupt the incumbency advantage of a dominant elite without expanding access beyond the stratum below it, particularly when that stratum already holds the resources, networks, and local authority needed to ll the political vacuum. In the Egyptian case, this stratum was not created by the reform but predated it, and its political reproduction continued across every subsequent regime transition.

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Chapter 1

A Century of Land Inequality in Egypt: Concentration, Land Reform, and Counter-Reform (1896–2020)

> "And what of the poor? Do they not deserve a share in this world too? They tell us their reward awaits them in the afterlife — but they want a share in this world now, even at the cost of some of their share in heaven."
>
> — Gamal Abdel Nasser, speech in 1953[1]

1.1 Introduction

The Middle East is widely recognized as one of the most unequal regions in the world (Alvaredo et al., 2019), yet we still know little about the historical foundations of this inequality. In Egypt, inequality has been at the core of major political ruptures. It was a central grievance behind the 1952 military coup and the subsequent agrarian reform, and decades later it resurfaced in debates preceding the 2011 uprising. While recent work has documented contemporary income inequality, we lack systematic historical evidence on wealth inequality—particularly the evolution of land inequality, which represented the main form of wealth in twentieth-century Egypt, and on the drivers of inequality, which are also closely linked to the origins of economic growth and development (Sokoloff and Engerman, 2000; Acemoglu et al., 2001).

To address this gap, I construct a historical series of land inequality in Egypt at both the national

1. Author's translation from a video.

and sub-national levels from the late nineteenth century to the early twenty- rst century. The analysis draws on newly digitized land ownership tabulations of private agricultural land produced by the Egyptian Ministry of Finance. These data provide detailed distributions of land ownership and span major political regimes: the period of British occupation until 1923, the constitutional monarchy until the 1952 military coup, and the republican era under successive presidents from Nasser to Sisi. It also showcases the results of implementing the land redistribution reform: the 1952 agrarian reform. I complement these ownership tabulations with estimates of the landless agricultural population derived from population censuses, allowing for a broader assessment of land inequality beyond landholders alone. Then, I apply the Generalized Pareto Interpolation Method (Blanchet et al., 2022) to reconstruct the full distribution of land ownership at the percentile level, rst for landholders only and then for the entire agricultural population, including the landless.

The data show that, at the beginning of the twentieth century, the distribution of land ownership was highly unequal. Within the population of landowners, the top 1% held approximately 45–47% of total privately owned agricultural land, whereas the bottom 90% possessed only about 30–25%. Concentration was driven by a very small elite: the top 0.1% alone owned as much land as the entire next 40% of landowners. This structure was not only national but spatial. Inequality was systematically higher in the Delta and parts of Middle Egypt than in Upper Egypt, and this regional hierarchy persisted with little change until 1952. The agrarian reform of 1952—which introduced a land ceiling program in conjunction with tenancy regulations—constituted the only sustained redistributive episode of the period that effectively reduced inequality. Between 1952 and 1970, approximately 15% of private agricultural land was redistributed. The share of the top 1% declined from 42% to 27%, while the bottom 90% for the rst time became the group that owned most land at 42%. The main bene ciaries were small and lower-middle landholders (1–5 feddans[2]), whose land share increased substantially. Regional disparities also narrowed. However, these gains were limited in two important respects. First, the bottom 50% of landholders experienced only modest improvements. Second, once the landless agricultural population is included, the redistributive reach of the reform appears far more constrained.

The post-1992 period reveals how contingent nature of these earlier gains. The 1990s constituted a period of structural liberalization of the Egyptian economy, within which the initial reform—namely, the dismantling of tenancy protections—represented a marked institutional

2. 1 feddan is equivalent to 0.42 ha

regression. Since then, land concentration has increased again: the share of the top 1% rose from 27% in 2000 to 33% by 2020, while the bottom 90% lost ground. The Growth Incidence Curve for the period shows a strongly regressive pattern, with gains concentrated at the very top—especially among the top 0.5% and 0.1%—and losses across the lower and middle segments of the distribution. Desert reclamation policies reinforced this trend by allocating newly irrigated land primarily to capital-intensive investors.

To understand why inequality persisted prior to the reform and re-emerged afterward, I analyze the institutional mechanisms that structured land concentration before 1952. The composition of provincial landholdings in the nineteenth century is a strong predictor of inequality levels observed in 1951. Provinces characterized by higher proportions of ushuriya land—historically associated with large estates—exhibited systematically greater inequality, whereas provinces in which kharajiya land—allocated to peasants in the form of usufruct rights—predominated were comparatively more egalitarian. State land also operated as a channel of concentration, particularly in moments of scal or political weakness, when public land was transferred into private hands. Foreign ownership ampli ed concentration in speci c provinces, while waqf arrangements[3] preserved elite holdings across generations. These mechanisms point to the central role of institutional structures that resulted in sustained inequality until the eve of 1952.

These patterns of concentration also shaped the organization of agricultural production. Cotton intensity peaked in the 50–200 feddan stratum and attenuated above 200 feddans, where holdings were owned by absentee landowners, royal, waqf, and foreign-owned and typically leased to intermediaries rather than directly managed (Harik, 1974). Wheat, the principal food crop, exhibited the mirror image, concentrated in smallholdings under 10 feddans (Baer, 1962; Abbas and El-Dessouki, 1998). The cotton–landownership association re ects an institutional complex—credit access, capital for private drainage, and the `izbah labor system—that operated speci cally at the level of the resident commercial estate (Panza and Karakoç, 2021). The relevant “large estate" is therefore not the largest holding per se, but the holding of the resident middle landowner, where ownership, scale, and institutional access combined to enable intensive cultivation.

Two further ndings emerge from examining how redistribution was implemented and how its gains were sustained. First, the implementation of the reform did not operate uniformly from large estates down to the smallest landholders. While expropriation effectively dismantled the very largest holdings, the redistribution captured by smaller groups was uneven: gains accrued

3. Religious Endowments

not only to small landholders but also to medium-large owners (50–100 feddans), particularly in the Delta and Upper Egypt, through three channels that operated alongside formal expropriation: voluntary sales by large landholders during the five-year grace period before expropriation, family subdivision of estates under separate legal titles, and corporate exemptions that shielded company-held agricultural land from ceiling enforcement. Provinces with larger landless populations prior to reform were not systematically more likely to experience more reductions in large estates, indicating that the geography of redistribution did not follow the geography of need.

Second, tenancy regulation operated as the institutional mechanism through which the reform's gains persisted. By capping rents and progressively strengthening tenant protections from the 1950s onward, the reform transformed tenancy from a short-term contractual arrangement into a quasi-property right and constrained the bargaining power of large landholders for four decades. The timing of the post-reform reversal makes the centrality of tenancy clear. Ownership ceilings were lifted in 1978, yet land concentration only began to re-expand fourteen years later, after the 1992 dismantling of tenancy protections. The gap between the two events identifies tenancy regulation, rather than ownership ceilings, as the mechanism sustaining the redistributive compression achieved between 1952 and 1990.

This paper contributes to two strands of literature on land inequality. One strand examines the consequences of land inequality for economic and political outcomes, including development, education, and institutional change (Cinnirella and Hornung, 2016; Acemoglu et al., 2007; Montalbo, 2023; Galor et al., 2009; Gelman and Santilli, 2011). A second strand focuses on the historical origins of land inequality (Sokoloff and Engerman, 2000; Frankema, 2010; Wegge, 2021; Galli and Rönnbäck, 2021). Within this literature, three main explanations are commonly emphasized: geographic conditions such as climate and crop suitability that shape agricultural production structures; colonial settlement policies that influence the distribution of property rights; and pre-colonial institutional arrangements that structure land allocation, as highlighted by Frankema (2010). This paper contributes to this latter perspective by documenting how early institutional arrangements under Muhammad Ali shaped the structure of landownership in Egypt. In particular, the fiscal land classification system distinguished between kharajiya land cultivated in small peasant holdings and `ushuriya land associated with large estates granted to elites. These institutional distinctions created a dual land regime that structured land concentration and helped explain the persistence of regional inequality in Egypt well into the twentieth century, especially during periods of weakened state autonomy.

The paper also contributes to the measurement of long-run land inequality by constructing a historical series that traces the evolution of land concentration across major political regimes and land policy changes, while incorporating the landless population into the analysis. Rather than focusing on a single episode, the series links past and present to document how inequality evolved from the late nineteenth century to the present. Existing studies on long-term land inequality (Deininger and Squire, 1998; Deinlinger and Binswanger, 1999; Frankema, 2010) have largely relied on land Gini coef cients derived from agricultural censuses. While these provide an important source for measuring land distribution, they have several limitations. First, despite their global scope, relatively little work has examined the historical evolution of land inequality within countries over long periods. Second, relying solely on the land Gini coef cient obscures important changes at both the top and bottom of the distribution, masking shifts in land concentration dynamics—a limitation discussed by Erickson and Vollrath (2004) and addressed in more recent work such as Bauluz et al. (2020). Third, agricultural censuses typically measure land as a unit of production rather than as an owned asset, which can obscure its role in wealth concentration. Alternative approaches based on household survey data (Bauluz et al., 2020) attempt to address some of these issues but often suffer from underreporting at the top of the distribution and therefore underestimate inequality. Moreover, most existing datasets exclude the landless population, omitting a substantial share of the rural workforce from inequality assessments.

Second, this paper contributes to the literature on land reforms, which has produced mixed ndings regarding their distributive effects. A key feature of many land reform programs is that bene ciaries are not granted full property rights and remain tied to institutional arrangements—such as cooperatives—that regulate land use and limit land transfers (Albertus et al., 2016; Dell, 2012). A related body of work highlights the importance of implementation in shaping reform outcomes. Studies of land reforms in Russia, France, and Spain show that elite resistance, weak enforcement capacity, and con icts over property rights produced uneven redistribution, with gains captured by those best positioned to navigate or subvert reform institutions rather than by intended bene ciaries (Nafziger, 2016; Finkel et al., 2015; Domenech and Herreros, 2017). However, relatively few studies examine how the implementation of land reform reshapes land inequality itself. The limited evidence available shows mixed results: Bardhan et al. (2014) nds a reduction in land inequality following reforms in West Bengal, India, whereas Finley et al. (2021) and Galli and Rönnbäck (2021) document increases in inequality after reforms in nineteenth-century France and Sierra Leone. These divergent ndings suggest that the distributive effects of land reform depend critically on the institutional mecha-

nisms through which redistribution is implemented. By examining the Egyptian agrarian reform of 1952, this paper contributes to this literature by showing that legal ceilings alone are an insufficient guide to distributional outcomes: what matters is who gains access to land in the window before and around expropriation, and who is excluded from eligibility altogether. In the Egyptian case, both dynamics operated simultaneously, producing a compression of land concentration that was real but institutionally constrained.

This paper contributes to the broader literature on historical wealth inequality along two dimensions. First, it speaks to the body of work on pre-industrial inequality developed by Alfani (2021) and Milanovic et al. (2011), who reconstruct wealth and income distributions for European societies from the late Middle Ages to the eighteenth century using fiscal records and social tables. Its empirical base, however, is almost exclusively European: in Milanovic's recent taxonomy of premodern social tables (Milanovic, 2023), no systematic evidence exists on a Muslim society as it entered the modern era. Second, it speaks to the literature on modern wealth concentration, which has documented long-run trends in the United States (Saez and Zucman, 2016), France (Piketty et al., 2006), England (Cummins, 2021), and Germany (Albers et al., 2022). Systematic historical evidence on wealth inequality in the Middle East remains far more limited: existing studies such as Alvaredo et al. (2019) and Assouad (2023) rely primarily on contemporary household income surveys and, in some cases, Forbes rich lists, approaches constrained by survey under-reporting, rich-list inconsistencies, and the absence of comprehensive fiscal data.

By drawing on newly digitized land ownership records, this paper bridges the gap between these two literatures. It reconstructs the first long-run wealth inequality series for a Muslim-majority country, covering 1896–2020. While this period is too recent to fall within the pre-industrial timeframe studied by Alfani and Milanovic, the series begins in a still largely agrarian Egypt and offers a glimpse of the magnitude of inequality in a late pre-industrial Muslim setting, before extending into the modern period covered by the contemporary literature. The series is grounded in the same kind of fiscal-cadastral evidence that underpins European pre-industrial estimates rather than on contemporary surveys or rich lists. This setting also makes it possible to examine two property institutions largely absent from the European literature: Islamic inheritance rules, which mandate fixed shares for multiple heirs and allocate daughters half the share of sons, exerting continuous fragmenting pressure on agricultural estates across generations in contrast to the primogeniture system that underpinned estate persistence in much of Europe; and the waqf, a religious endowment that immobilized land outside the market and could shield family

holdings from both fragmentation and sale, working in the opposite direction.

Finally, this paper contributes to the work of historians who have examined land concentration in Egypt (Amer, 1958; Baer, 1962; Abbas and El-Dessouki, 1998; Barakat, 1977). These studies primarily focused on the pre-1952 period, documenting the concentration of land among Egyptian elites through qualitative and archival evidence. However, there has been no systematic continuation of this work for the post-1952 period, particularly following the implementation of agrarian reform. This study complements and expands on these historical accounts by providing a long-term perspective on land inequality, bridging the gap between pre- and post-reform land distribution dynamics. In doing so, it contributes to a broader understanding of institutional change and postcolonial reforms in Egypt, such as those examined by Saleh (2016), by highlighting how shifts in political regimes and land policies shaped the evolution of inequality over time.

The remainder of this paper is organized as follows. Section 1.2 provides a historical background on the legal and institutional framework in Egypt and the 1952 agrarian reform. Section 1.3 presents the data sources and methodology. Sections 1.4 & 1.5 and 1.7 present the results and mechanisms.

1.2 Brief History of Landownership in Egypt

1.2.1 The nineteenth-century origins of large estates.

As Kenneth M. Cuno (1992) observes, “strati cation was an ancient and deeply rooted characteristic of rural society.”[4] Inequality in Egypt's countryside thus predates Muhammad Ali (1805–1848), and “land was held individually and unequally distributed among the peasantry” before his rule.[5] Yet the agrarian structure that persisted into the late nineteenth and early twentieth centuries was decisively shaped by the land policies and institutional reforms introduced under Muhammad Ali and his successors, particularly during episodes of scal crisis and dynastic transition when state control over land allocation weakened.

1.2.1.0.1 New tax system and land grants

In 1813, Muhammad Ali abolished the iltizam system,[6] replacing it with centralized land tax collection administered directly by the state (Baer, 1962, p. 6). Small plots of land (3–5 fed-

4. Cuno (1992), p. 4.
5. Cuno (1992), p. 3.
6. The iltizam system, introduced during Ottoman rule, was a tax farming arrangement under which multazims (tax farmers) collected agricultural taxes on behalf of the state while retaining surpluses.

dans) were allocated to peasants under usufruct arrangements subject to the kharaj tax, forming what became known as kharajiya land (Baer, 1962, p. 7). At the same time, large estates were granted to high of cials, members of the ruling family, and local notables known as `ushuriya, producing a dual agrarian structure that combined small peasant plots with extensive elite holdings.

These elite estates often took the form of tax-privileged lands granted to reward political loyalty and promote agricultural expansion.[7] These practices continued under Muhammad Ali's successors and were geographically concentrated in the Nile Delta, particularly in its northern and western regions where land expansion was most feasible. Village notables also played an intermediary role in this system, acting as local authorities responsible for land administration and relations between peasants and the state.[8]

Fiscal pressures further contributed to the consolidation of larger estates. Heavy taxation and conscription led many peasants to abandon their plots, leaving villages with tax arrears. In response, Muhammad Ali issued a decree in 1840 requiring wealthy of cials and military of cers to assume responsibility for these arrears in villages granted to them, effectively transferring land into their control (Baer, 1962, p. 13). Similar dynamics re-emerged during periods of s-cal distress under Muhammad Ali's successors, particularly under Khedive Ismail in the 1870s.

Large landholders also bene ted from privileges such as the ability to convert estates into waqf endowments, which protected holdings from fragmentation through inheritance.[9] Peasants, by contrast, retained limited usufruct rights and faced heavier tax burdens, reinforcing the structural divide between smallholders and large landholders (Baer, 1962, pp. 10–12).

1.2.1.0.2 The Legal Consolidation of Private Property

Over the mid-nineteenth century, these arrangements were progressively codi ed into formal legal rights over land. Legal reforms expanded property rights attached to usufruct and reinforced patterns of unequal ownership. The 1858 Said Law extended usufruct rights to include inheritance, leasing, sale, and mortgage, though these provisions were primarily utilized by

7. Such estates included ibiyya lands granted over uncultivated areas under usufruct arrangements following an 1829 decree and ji ik estates concentrated in the hands of the royal family. Although initially tax-exempt, these estates were later subjected to a lighter tithe and came to be classi ed as `ushuriya land (Baer, 1962, pp. 17–18).

8. Village notables supervised the redistribution of usufruct rights, organized corvée labor, and managed conscription, thereby mediating both scal and administrative relations between rural households and the state (Baer, 1962, pp. 50–55).

9. Although waqf endowments had been abolished under Muhammad Ali's centralization policies, they were later reintroduced under his successors and increasingly used to preserve large estates but the right has to be granted by the Khedive, so only reserved to royal estates and some large estates. Under the British rule, the priviledge was extended to all land.

larger landholders (Baer, 1962, p. 8). The Muqabala Law of 1871 further allowed individuals to obtain full ownership by paying several years of taxes in advance (Baer, 1962, p. 10). Because these provisions required substantial liquidity, they were exercised disproportionately by large estate holders, reinforcing the structural advantages of `ushuriya lands.

The British occupation beginning in 1882 accelerated the transition toward formal private ownership. The extension of private property rights to kharajiya land and the abolition of muqabala payments led to the recognition of private ownership across most agricultural land by the late nineteenth century (Amer, 1958, p. 73–76). These institutional changes also facilitated the entry of foreign investors, who became an important component of Egypt's agrarian structure.[10]

1.2.1.0.3 Fiscal Crisis and Land Sales

Egypt's fiscal crisis and state default in 1876 marked another turning point in land redistribution. Facing mounting external debt obligations, the government increasingly relied on the sale of public and royal lands to generate revenue. State-owned Amiriya lands were gradually sold to land companies and large landholders possessing the capital required to acquire and cultivate them (Barakat, 1977, p. 114).[11]

A similar process occurred with the liquidation of royal estates. Lands belonging to the Khedive and the royal family—including the Dayira Saneya and State Domain—were gradually sold during the late nineteenth century under the supervision of European financial controllers.[12] These debt-driven sales transferred large areas of land to actors with sufficient liquidity, reinforcing existing patterns of concentration rather than broadening smallholder ownership.

1.2.1.0.4 Persistence of Agrarian Concentration in the Twentieth Century

By the early twentieth century, Egypt's agrarian economy was closely tied to export-oriented cotton production. Public investment in irrigation infrastructure and flood control increased agricultural productivity and land values, particularly benefiting large commercial farms with access to capital (Amer, 1958, pp. 69–70). The expansion of perennial irrigation and Egypt's deeper integration into global cotton markets further increased the returns to large-scale commercial agriculture (Saleh, 2024).

Although the state continued to sell public land during the interwar period through programs

10. Foreign investors benefited from legal arrangements that privileged foreign property under the capitulations system and the Mixed Courts established in 1876, which provided a judicial framework protecting foreign property rights and limiting the Egyptian state's authority over foreign-owned estates (Baer, 1962, pp. 65–70).
11. Amiriya lands were state lands recorded as uncultivated but considered suitable for agricultural development.
12. Large portions of these estates were initially acquired by foreign investors and subsequently resold through land companies established in the 1890s (Barakat, 1977, p. 121).

between 1928 and 1949 ostensibly to broaden smallholder ownership, the redistributive effects were limited, with large landholders frequently capturing a substantial share of the land offered for sale (Abbas and El-Dessouki, 1998, pp. 41–42; 48–52). An earlier intervention, the Five Feddan Law of 1912, took a different form: it protected existing smallholders from foreclosure by making holdings of ve feddans or less inalienable for debt, though this same provision rendered such land unusable as collateral and cut smallholders off from formal mortgage credit (Baer, 1962, pp. 89–90). Later state-credit institutions ostensibly designed for smallholders were similarly captured by large landowners: the Crédit Agricole Égyptien, founded in 1931, raised its property-size eligibility cap from 40 to 200 feddans, and large owners further accessed its low-interest loans through dummy borrowers and elite-controlled agricultural co-operatives (Baer, 1962, p. 88).

Foreign ownership gradually declined as nationalist pressures increased during the interwar period, particularly following the abolition of the Mixed Courts under the Montreux Convention of 1937 and the Egyptianization policies of the 1940s. However, these reforms altered the national composition of ownership without substantially reducing its concentration.

By the mid-twentieth century, landownership remained highly concentrated. The institutional environment, export-oriented agricultural policies, and repeated state land sales continued to favor large estates. The agrarian structure that had taken shape through nineteenth-century redistribution, legal codi cation, scal crisis, and debt-driven land sales therefore persisted largely intact until the agrarian reform of 1952.

1.2.2 Land Redistribution and the Agrarian Reform of 1952

The 1952 coup d'état marked a major political rupture, ending the monarchy and ushering in the republic in 1953. Led by the Free Of cers, the coup emerged from dissatisfaction with corruption, continued British in uence, and the concentration of economic and political power, including in the countryside. Land reform quickly became central to the new regime's project to weaken the landed order and consolidate political authority. Contemporary accounts and later historical studies alike emphasize that the reform pursued political and economic objectives: to break the in uence of the landed aristocracy, to contain rising rural unrest, and to redirect capital away from landholding toward industrial development (Warriner, 1953; Boeckx, 1971).

On 11 September 1952, Law 178 initiated Egypt's rst agrarian reform. The reform sought to expropriate large estates and redistribute land to smallholders while reshaping access through

complementary regulations such as tenancy protections and establishing cooperatives[13].

1.2.2.0.1 Land Ceilings and Redistribution

The agrarian reform was implemented in three phases between 1952 and 1969, progressively lowering ownership ceilings from 200 feddans (84 ha) in 1952 to 100 feddans (42 ha) in 1961 and nally to 50 feddans (21 ha) in 1969. Land exceeding these ceilings was expropriated and redistributed, with priority given to existing tenants and cultivators on the affected estates, followed by land-poor households within the same village based on household size.

However, in practice, the redistributive reach of the reform was constrained. Eligibility was largely prioritized cultivators that own less than ve feddans, who would receive between 2–5 feddans (0.84–2.10 hectares) only, leaving much of the rural population without land outside the scope of direct redistribution[14]. Compensation provisions and legal exemptions—including certain categories of fallow land and estates held by agricultural land companies—further narrowed the extent of expropriation[15]. Large landholders received compensation in the form of long-term government bonds valued at ten times the rental value of the expropriated land, carrying 3% interest and maturing over thirty years—terms revised downward in 1958 to 1.5% interest and a forty-year maturity. Bene ciaries in turn were required to reimburse the state for the land they received, paying the acquisition cost plus a 15% surcharge over thirty years, also revised in 1958 to a 10% surcharge over forty years. This symmetrical design—bonds to former owners, repayment obligations on bene ciaries—both eased scal pressures on the state and mitigated political resistance from entrenched elites, while simultaneously limiting the net redistributive transfer to recipient households (Warriner, 1953).

The redistributed land was integrated into cooperatives of agrarian reform, through which the bene ciaries accessed credit, input, and marketing channels. These cooperatives were intended to replace the economic and social functions previously performed by large landlords, and were later expanded to all cultivators no matter their size of land[16]. Although the land ceiling system formally remained in place until 1978, economic liberalization under Sadat gradually weakened

13. Prime Minister Ali Maher Pasha opposed the law, favoring a 500-feddan landownership limit, but the Revolutionary Command Council forced his resignation, replaced him with Muhammad Naguib, and passed the law.

14. There was a priority list for bene ciaries. It started with cultivators and tenants that used to cultivate the expropriated land. Then, it follows with the landless inhabitants of the village, in case there was land in excess for redistribution.

15. Companies established on agricultural activities were allowed to own more than the ceiling level, as their operations rely on agricultural activities.

16. However, the distinction between agrarian reform cooperatives and agricultural cooperatives remained; Moreover, cooperatives were initially designed to be administered at the village level; in practice, however, their organization followed the pattern of expropriated estates, and in some cases they were consolidated across villages when individual units were too small in scale (Harik, 1974).

its enforcement and signi cance.

Complementary measures reinforced the scope of the reform. Royal estates were fully con- scated in 1953 and redistributed without compensation. Religious endowments (waqf) were brought under state control and progressively incorporated into the agrarian reform framework: Law 180 (1952) prohibited the creation of new private endowments, Law 152 (1957) national- ized public waqf lands, and Law 44 (1962) abolished existing private endowments[17,18]. To- gether, these measures dismantled institutional channels that had previously protected large concentrations of land from fragmentation.

1.2.2.0.2 Complementary Reforms and Their Reversal

In addition to ownership ceilings, the agrarian reform reshaped access to land through tenancy regulation. Beginning in the 1950s, tenancy laws capped rents and progressively strengthened tenant protections. By 1966, tenancy contracts had become effectively permanent and inheri- table, remaining in force until 1992. These measures transformed tenancy from a short-term rental arrangement into a quasi-property right, granting long-term security of access even with- out formal ownership and reducing the bargaining power of large landholders (Boeckx, 1971).

The institutional framework established under the agrarian reform began to erode well before 1992. The process of “de-Nasserisation” can be traced to Sadat's in tah policies in the 1970s, which liberalized agricultural markets and reduced the state's role in input provision and co- operative support. This trajectory culminated under Mubarak with the passage of Law 96 of 1992, widely interpreted as a counter-revolution against Nasser-era agrarian institutions (Bush, 2007; Ayeb, 2010). Law 96 dismantled four decades of tenancy protection: following a ve- year transition, rents were liberalized—from seven to up to twenty-two times the land tax—and from October 1997 landlords could evict tenants and charge market rents. In some areas rents increased several-fold within a decade[19].

Importantly, Law 96 was embedded within the 1991 Economic Reform and Structural Adjust- ment Program (ERSAP) negotiated with the IMF and World Bank. The program promoted

17. A private waqf is an endowment whose bene ciaries are designated by the founder prior to death. When such an endowment was dissolved, its assets were redistributed among the designated bene ciaries (and their heirs if the original bene ciaries had died) according to the rules set by the founder. Under the agrarian reform, only the portion of waqf land exceeding the legal ceiling was incorporated into the redistribution program.

18. Foreign ownership of agricultural land was separately prohibited under Law 15 (1963), which transferred foreign-held estates into the redistribution pool.

19. The reform was implemented without a comprehensive census of tenants, and many cultivators were unaware of the law until eviction began. By 1997, roughly one million tenants and their families—nearly 10 percent of the population—were directly affected (Bush, 2007). Long-standing tenants lost secure access to land, often without compensation, while credit and cooperative support were dismantled. Parliamentary debates re ected a broader ideological shift away from redistributive rural policy.

export-oriented, capital-intensive agriculture and large-scale investment in newly reclaimed desert lands while withdrawing state support from smallholders in the old Nile Valley. The 1992 reform therefore did not merely adjust tenancy rules; it reoriented the rural political economy from protected smallholder access toward market-based land allocation. While ownership ceilings formally remained, the erosion of tenancy protections fundamentally altered effective access to land and helps explain the renewed concentration observed after the 1990s.

1.3 Data

This paper examines the long-term evolution of agricultural land inequality in rural Egypt from 1896 to 2020, drawing on newly digitized data on the distribution of private agricultural land ownership and the agricultural population. The analysis measures land inequality under two alternative scenarios in order to account for the role of landless. Scenario 1 estimates land-area inequality among landholders only, while Scenario 2 incorporates the landless population alongside landowners, thereby capturing inequality in effective access to land across the rural population as a whole.

1.3.1 Private Agricultural Land Ownership Distribution

To analyze the evolution of the distribution of land ownership, I constructed a novel digitized dataset based on tabulations of private agricultural landholdings in rural Egypt spanning the period from 1896 to 2020 (Figure 1.1), collected from the Statistical Yearbooks (1896-1961) and the Reports on Agricultural Land Ownership (1970-2020). This data set includes detailed information on the number of landowners, the total private agricultural land area owned, and the breakdown of land ownership in various land brackets. It is available annually and at both the national and sub-national levels[20], offering a rare opportunity to analyze land inequality from an ownership perspective.

The tabulations originate from land tax returns collected at the village level by the land registry ("Mukallafat") and aggregated by the Ministry of Finance[21]. These returns classify landholders

20. At the national level, land distribution data are available annually from 1896 to 1961. Coverage becomes less available from 1970 to 2020. For the years after 2000, inconsistencies appear in the reported size brackets, as the published averages occasionally fall outside the stated interval boundaries. In such cases, averages were adjusted to respect the minimum threshold of each bracket. Nevertheless, estimates for the last two decades should be interpreted with caution. At the sub-national level, data are available at the province level. Coverage begins in 1901 and 1908, becomes more consistent from 1915 onward. However the digitization efforts was not the same as the national level. Part of the provincial data is drawn from Panza and Karakoç (2021) and is complemented by additional digitization for 1951–1959 and 1970. Further digitization may be feasible in future versions of the paper, although some reports are partially illegible due to ink deterioration, limiting complete recovery of the series.

21. The same tabulations were used by the Agrarian Reform Committee to identify estates exceeding the 200-

into brackets based on the size of their ownership, such as less than 1 feddan (0.42 ha)[22], 1 to 5 feddans (0.42 to 2.1 ha), 5 to 50 feddans (2.1 ha to 21 ha), and more than 50 feddans (more than 21 ha). From 1939 onward, additional breakdowns for larger ownership were introduced, including brackets for properties exceeding 100 feddans (42 ha), 200 feddans, and up to 2000 feddans.

This data also includes land ownership distribution by nationality (Egyptians, Foreigners)[23] and property type (e.g. “Waqfs”, or religious endowments) until 1950[24]. To complement this, I incorporated data on state agricultural land to construct the total cultivable land area and analyze the share of land owned privately[25].

1.3.2 Agricultural Population and Landless Workers

A central limitation in land inequality studies concerns the treatment of the landless population. The literature has addressed this issue in two main ways: either by incorporating the landless directly into land distribution calculations[26], or by constructing separate measures that capture broader inequality beyond landowners[27].

De nitions of the “landless" differ across the literature. Some studies infer landless from land survey data, whereas others use population censuses to identify agricultural workers without ownership. In all cases, however, the core concept is the same: landless are agricultural workers but do not hold land as property.

In the Egyptian context, two principal sources allow the enumeration of the agricultural population and the inference of landless: population censuses and agricultural censuses. The population censuses (1848–2006) identify agricultural workers as individuals reporting an agricultural

feddan ceiling for expropriation (Springborg, 1982).

22. Before 1910, the statistics only report one category of small holdings (below 5 feddans). To approximate the share of holdings below 1 feddan, I use the later period when both categories are reported and extrapolate backward. The estimate relies on the observed growth of holdings below 5 feddans to infer the likely evolution of the sub-category below 1 feddan.

23. Foreigners, according to the de nition explained by Abbas and El-Dessouki (1998) are either Egyptians with double nationality or non-Egyptians.

24. Land distribution was initially decomposed between Egyptians and foreigners. From 1935 onward, waqf lands appear as a separate category; earlier they were included within Egyptian ownership, since only Egyptians could establish a waqf. I assume that the share of waqf land in total cultivable land remained constant, following Baer (1962), who notes that the waqf estates observed in 1950 were largely those created in the late nineteenth century.

25. State land was surveyed later than private land (Baer, 1962). Consistent estimates of public land area are available from 1920 to 2000, after which the statistical authority stopped publishing these data. For the missing years before 1920 and after 2000, I assume that the share of state land in total cultivable land remained constant and extrapolate this share backward and forward.

26. Acemoglu et al. (2007); Summerhill (2010); Wegge (2021); Bauluz et al. (2020)

27. Erickson and Vollrath (2004); Montalbo (2023)

occupation or employment in agriculture.[28] The harmonized occupational series compiled by Saleh (2026) ensures comparability of occupational classi cations over a period of more than 150 years.

Using this source, I focus primarily on the male agricultural population.[29] The age de nition of employment also varied between censuses. Early censuses (1848–1947) generally included workers aged ve or six and above, whereas later censuses increasingly emphasized the population aged 15 and above.[30]

Agricultural censuses (1929, 1939, 1950, 1961, 1981, 1991, 2000, 2010)[31] provide a complementary source with a more detailed classi cation of agricultural workers, distinguishing permanent wage earners from family workers and temporary laborers.[32] I rely on the population censuses for the main analysis, following Montalbo (2023), given their broader coverage of the rural population and longer time span consistent with the land inequality series. The agricultural censuses are used as a complementary source for robustness checks (Section 1.6.2).

1.3.3 Methodology

To analyze land inequality, the generalized Pareto interpolation method (Blanchet et al., 2022) is applied to private agricultural land ownership tabulations. Following Bauluz et al. (2020), I measure land shares owned by the bottom 90% of landholders (p0–p90), the next 9% (p90–p99), and the top 1% (p99–p100). The bottom 90% is further divided into the bottom 50% (p0–p50), representing the smallest landowners, and the next 40% (p50–p90). Within the upper tail, I also examine the shares held by the top 0.5% (p99:5–p100) and the top 0.1% (p99:9–p100) of landowners. These measurements are conducted in two scenarios:

28. The de nition of “employed” varies across census years. In the censuses of 1848, 1868, 1897, 1907, 1917, 1927, 1937, and 1947, the employed population consisted of those “with occupation” and a non-missing occupational title. From 1960 onward (1960, 1976, 1986, 1996, and 2006), employment status was based on reported employment categories (Saleh, 2026).

29. Female agricultural employment was inconsistently enumerated across census waves. In the 1917 and 1947 censuses, when female agricultural workers were systematically recorded, they accounted for approximately 40% and 52% of the female employed population, respectively. In most other years, recorded female agricultural employment remained below 4% of the female workforce (Saleh, 2026). This variation re ects enumeration practices rather than actual labor force participation.

30. The 1848 and 1868 censuses reported workers aged ve and above. The censuses from 1897 to 1937 followed a similar approach. The 1947 census used age six as a threshold. From 1960 onward, censuses reported workers aged six and above, with growing emphasis on the 15+ population in later waves (Saleh, 2026). Although harmonizing age de nitions is important for long-run comparability, no additional age adjustments are implemented in this version of the paper; these re nements will be incorporated in future work.

31. Conducted every decade since 1929, with the exception of 1970 due to wartime disruption. A 2021 round was delayed due to the COVID-19 outbreak; it is unclear when CAPMAS will nalise and publish the data.

32. Agricultural censuses are establishment-based surveys focused speci cally on agricultural holdings and labor arrangements, rather than the entire population.

1.3.3.0.1 Scenario 1: landholders only

This scenario examines inequality exclusively among landowners, excluding the landless population. It reflects the distribution of agricultural land among those who own it and is the basis for comparison.

1.3.3.0.2 Scenario 2: Landless Population as agricultural workers

In this scenario, the landless population is proxied using the agricultural population identified in the population censuses (1848–2006)[33]. Specifically, individuals classified as employed in agriculture are treated as landless and assigned zero land in the distribution[34]. This approach captures inequality not only among landholders but also between landholders and those whose livelihoods depend on agricultural labor without ownership rights.

1.4 Land Constraints, and Demographic Pressure (1896–2020)

Over the past 120 years, the expansion of cultivable land in Egypt has been limited and closely tied to state-led irrigation improvements and land reclamation. Between 1896 and 1930, total cultivable land increased by only about 15%, from roughly 6.5 million feddans (2.73 million hectares) to 7.4 million feddans (3.11 million hectares) (Figure A.1). This period coincided with the sale of uncultivated state land, first to finance public debt and later to expand the cultivated area. Large tracts were reclaimed and transferred into private ownership, particularly during peak sales in the 1880s, early 1900s, and 1920s. As a result, private land expanded while public land declined correspondingly. Throughout the period, private land consistently accounted for approximately 75–80% of cultivable area, with public land comprising the remaining 20–25% (Figure A.2).

After 1930, the expansion of cultivable land slowed considerably. By 1950, total cultivable area reached approximately 7.5 million feddans (3.15 million hectares), reflecting only modest reclamation efforts. A more sustained increase occurred after 1980, driven primarily by desert reclamation projects around the Nile Delta and, to a lesser extent, the Nile Valley, raising total cultivable land to roughly 9 million feddans (3.78 million hectares) by 2020. Overall, the growth of cultivable land remained limited relative to the scale of demographic expansion.

During the same period, Egypt underwent rapid population growth. The total population in-

33. The growth rate of the agricultural population between 1996 and 2006 is used to project estimates of this population to 2020.

34. Given that the population censuses are conducted every decade, the years with missing years are linearly interpolated to match the inequality estimated among landowners.

creased from about 10 million in 1900 to nearly 90 million by 2020. This demographic expansion was re ected in the total rural agricultural population, which combines registered landowners and the landless agricultural population (males working in agriculture based on the population censuses). This group grew by a factor of 3.6 (Figure A.3). As a share of total population, it declined from around 30% in the late 19th century to about 16% in 2020 (Figure A.4). Throughout the period, landless workers were consistently more numerous than landowners, a point we develop further in Section 1.5.3.

However, this demographic growth unfolded under tight geographic constraints on cultivable land. In the absence of a substantial land frontier, the increase in landholders operated primarily through subdivision of existing holdings rather than through large-scale land incorporation. As shown in Figure A.6, the average holding size declined by half from approximately 6 feddans (2.52 hectares) in 1896 to approximately 3 feddans (1.26 hectares) by 1920, and further to around 2 feddans (0.84 hectares) by 1950. The average continued to fall to roughly 1.5 feddans (0.63 hectares) by 1980, before stabilizing and rising slightly to about 1.8 feddans (0.76 hectares) after 2000.

Against this backdrop of limited land expansion and sustained demographic pressure, the distribution of private agricultural land evolved within tight structural constraints.

1.5 Land Inequality Trends (1896–2020)

1.5.1 Extent of Land Concentration (1896–1952)

In the rst half of the twentieth century, private agricultural land in Egypt was concentrated among a small fraction of landowners. In 1900, the top 1% of landholders controlled 45% of private agricultural land, while the top 10% controlled 70%, leaving the bottom 90% with only 30% (Figures 1.2 and 1.3). By World War I, concentration reached its peak: the shares of the top 10% and top 1% increased to 75% and 47%, respectively, while the bottom 90% declined to 25%. These levels remained partially stagnant until the coup d'état by the Free Of cers in 1952.

Dis-aggregating the bottom 90% reveals more inequality even among smaller landowners. Throughout this period, the poorest 50% of landholders consistently owned only about 5% of private agricultural land. While, the next 40%—small and lower-middle landowners—held roughly 20%.

Given the nature of the concentration of wealth in the form of land, I look at the ownership shares within the top 1%, landownership. The top 0.5% of landholders controlled approximately 37–40% of private agricultural land, while the top 0.1% alone owned between 20% and 25% (Figure 1.6). In other words, the top 0.1% owned as much land as the entire next 40% of landholders and roughly ve times as much as the bottom 50%. By contrast, separating the top 1% from the rest of the top decile shows that the next 9% (p90–p99) held a relatively stable share of land—around 27–30%—throughout the period. These patterns indicate that land concentration was driven by a very small elite at the top of the distribution.

A different view emerges when we set inequality measures aside and look at the share of cultivable area held in each landholding bracket over time. The 50+ feddan bracket — the large-estate stratum that I could track since 1896 — declined from 35% of private agricultural land in 1910 to 27% by 1952, well before the land reform, even as it remained the largest single bracket throughout the period. This downward drift is consistent with the natural fragmenting effect of Islamic inheritance rules, which mandate xed shares for multiple heirs — sons, daughters, spouses, parents — and thereby subdivide large estates at each generational transition.

1.5.2 Land Redistribution Under the 1952 Agrarian Reform

The 1952 agrarian reform and subsequent ceiling reductions in 1961 and 1969 substantially reshaped the distribution of land ownership in Egypt beyond the top decile. Between 1953 and 1980 the Agrarian Reform Authority redistributed about 15% of Egypt's private agricultural land (Figure A.8). Table A.1 decomposes this redistribution by source. The four agrarian reform laws together account for roughly 78% of redistributed land, with the founding 1952 law alone responsible for over half; successive ceiling reductions expanded the pool of expropriable land but contributed progressively less. The remaining 22% came through complementary channels — waqf estates, sequestered (hirasat) lands, and residual administrative transfers — with waqf alone contributing nearly 15

As shown in Figure 1.2, the top 1% of landholders experienced a sharp and sustained decline in their share of private agricultural land, falling from 42% in 1952 to 35% following the introduction of the 200-feddan ceiling, and further to 30% after the reduction to 100 feddans in 1961. The nal reduction to a 50-feddan ceiling in 1969 lowered the top 1%'s share to 27%. In total, after the introduction of the reform, the land share of the top 1% decreased by 15 percentage points over seventeen years period.

The main bene ciaries of the reform were small landholders owning between 1 and 5 fed-

dans—the next 40% of the ownership distribution. As shown in Figure 1.3, this group's share of agricultural land increased from about 20% in 1952 to roughly 30% by the 1970s, representing a 50% expansion in its collective share.[35] Medium-sized landholders, corresponding to the next 9% of the distribution, also experienced gains, though more modest. Their share rose from approximately 30% to about 35%. These increases partly re ect land transfers that occurred prior to expropriation, when holdings above the ceiling were sold or subdivided among medium landowners during the grace period preceding enforcement of the reform.

In contrast, the reform had only limited effects at the very bottom of the ownership distribution. Among landholders alone, the bottom 50%—primarily those owning less than one feddan—saw their share of land rise only slightly, from about 5% to 8%. Although this represents a proportional increase, it remained small relative to the gains observed among the next 40% and the next 9%.

Taken together, the redistribution shifted the balance within the ownership distribution, primarily transferring land from the top 1% to the middle of the distribution (p50–p99). As a result, the bottom 90% of landholders came to hold the majority of privately owned agricultural land, most of it concentrated among smallholders. This marked a clear departure from the pre-reform structure, in which a small elite controlled a disproportionate share of land, and re ects the fragmentation of large estates into smaller holdings.

Importantly, this result is obtained without including the landless population. The ownership-based perspective therefore overstates the reach of the reform. A large segment of the rural population—agricultural workers without ownership—remained outside the scope of redistribution. When evaluated solely among landowners, the reform appears to generate a broad-based shift; once the landless are considered, its distributive limits become more visible.

1.5.3 Including the Landless Population

To assess the full incidence of the agrarian reform, it is necessary to move beyond ownership-based measures and account for land access among the wider rural population. Throughout much of the twentieth century, landless agricultural workers constituted the largest segment of male employment. Their share of total male employment remained above 60% until 1950 and

35. Village-level eldwork from the 1980s con rms this distribution. At Ezeb Bisintawai (the former Mughazi estate in Beheira), 378 cultivators were registered with the agrarian reform cooperative, of whom 43% held 2–3 feddans and 35% held 3–4 feddans. At the former Lutfallah estate near Beni Mazar (Minya), among 804 cooperative members, 61% held 2–3 feddans and 33% held 1–2 feddans. Other reform villages documented in the literature show similar averages of 2.4–3.2 feddans per bene ciary (Hopkins, 1995).

declined to 30% by 2020 (Figure A.5) (Saleh, 2026). This trajectory re ects broader structural transformation, with non-agricultural employment expanding more rapidly. Even so, the absolute number of individuals dependent on agriculture remained substantial, and within the rural agricultural population landless workers continued to outnumber landowners: in 1897 there were 2.3 landless workers per landowner (70% of the group), narrowing to 1.2 (55%) by 2020 (Figure 1.4).[36]

Figures 1.5 and 1.6 therefore contrast two distributional scenarios. Scenario 1, used as the benchmark throughout the paper, measures inequality among landholders only. Scenario 2 expands the population base by incorporating the landless agricultural population, assigning them zero land in the distribution. This distinction is central in evaluating the reach of redistribution. Once landless are included, they alone account for more than the entire bottom half of the population for most of the period, although this gap gradually narrows over time. In Scenario 2, the bottom 50% holds essentially no land before and after the agrarian reform (Figure 1.5). This pattern highlights a key limitation of ownership redistribution: rst eligibility was restricted to tenants and smallholders cultivating expropriated estates, leaving the majority of agricultural workers without land outside the scope of direct redistribution.

Including the landless population also increases measured concentration at the top. Prior to 1952, the share of the top 10% rises from just over 70% in Scenario 1 to nearly 90% in Scenario 2, while the share of the top 1% increases from around 45–47% to roughly 50–57%, depending on the year (Figure 1.6). These shifts arise because adding landless individuals expands the denominator of the distribution without altering ownership at the top, thereby widening the measured gap between largest landholders and the rest of the agricultural population.

1.5.4 Institutional Reversal and the Re-Concentration of Land

In 1992, the tenancy reform—an important pillar of the agrarian reform framework—was effectively dismantled. This institutional reversal marked the beginning of a gradual process of re-concentration with the contraction of land for the bottom of the distribution. By 2020, the share of agricultural land held by the top 1% had increased from 27% in 2000 to 33%, while the share held by the bottom 90% declined over the same period (Figure 1.2).

As shown in Figure 1.6, this adjustment was particularly pronounced within the bottom 99% of the distribution. The decline was not limited to the very smallest landowners. Both the

36. The absolute number of male agricultural workers increased from roughly 2.0 to 5.0 million, more than doubling.

bottom 50% and the middle 40% experienced reductions in their land shares. However, the next 9%—medium landholders just below the top 1%—experienced the largest contraction, with their share falling from 40% to 35%, approaching levels last observed prior to the 1952 reform.

At the same time, re-concentration was reinforced by desert reclamation policies pursued from the 1980s onward. Newly irrigated land was largely allocated to investors capable of nancing large-scale infrastructure. These reclaimed areas—especially in and around the Nile Delta—gave rise to new large holdings owned by corporations and wealthy individuals (Ayeb, 2010), partially offsetting the reductions in concentration achieved during the reform period.

Taken together, these developments reveal an important dynamic of the post-reform era. The agrarian reform generated a uniquely progressive redistribution episode, characterized by gains for the lower and middle segments of the distribution and strong losses at the top. The dismantling of tenancy protections reversed this trajectory. Land inequality increased again, driven both by the re-expansion of large holdings and by the gradual erosion of land shares among small and medium landowners.

1.5.5 The Spatial Distribution of Land Inequality

Land inequality in Egypt was not only high in aggregate, but also displayed a pronounced and persistent spatial pattern. Figure 1.7 maps the land Gini coef cient at the provincial level in 1915, 1951, and 1970.[37]

Three broad patterns emerge. First, regional differences in inequality were already pronounced before 1952. Second, concentration declined gradually prior to reform but without altering the spatial hierarchy. Third, the agrarian reforms produced a rapid convergence across regions, though important provincial differences still persisted.

Before reform, inequality was highest in the Nile Delta, where the average provincial Gini reached 0.68 in 1915, with Behera at the extreme (0.81) and several provinces exceeding 0.70. Middle Egypt displayed a comparable regional average (0.68), though with greater internal variation, , while Upper Egyptian provinces were distinctly less concentrated, averaging 0.58. By 1951, this spatial hierarchy had changed little: all provinces experienced a gradual parallel decline, consistent with the natural fragmentation of holdings through inheritance. The regional ordering was preserved, and the geography of landownership remained broadly stable for four

37. The fourteen provinces are grouped into three regions. Delta: Behera, Gharbia, Dakahlia, Sharkia, Kaly-oubia, and Menou a. Middle Egypt: Giza, Beni Suef, Fayoum, and Menia. Upper Egypt: Assiut, Suhag, Qena, and Aswan.

decades.

The agrarian reforms transformed this pattern. By 1970, regional averages had converged—Delta at 0.45, Middle Egypt at 0.43, and Upper Egypt at 0.46—and the inter-regional gap that had characterized Egyptian land inequality for decades had largely disappeared. Yet convergence in regional averages should not obscure the persistence of substantial provincial variation: even in 1970, individual Gini coef cients ranged from 0.29 to 0.62, indicating that the reforms equalized broad regional differences without fully eliminating concentration in every province.

1.6 Robustness

1.6.1 Sensitivity to Top-Bracket Aggregation

The granularity of the source tabulations varies over time, which raises the question of whether the observed evolution of top shares re ects genuine changes in the upper tail or is partly driven by changes in how the underlying brackets were reported. Before 1939, the Statistical Yearbooks report only one broad category above 50 feddans. Between 1939 and 1961, the upper tail is progressively disaggregated into 50–100, 100–200, 200–500, 500–1000, and 1000–2000 feddan brackets. After 1961, the reports return to a coarser structure of above 100 feddans, and post-2000 the tabulations exhibit additional inconsistencies in bracket reporting. Mechanically, ner brackets allow the Generalized Pareto Interpolation (GPI) method to estimate the very top of the distribution more precisely, while coarser brackets force GPI to extrapolate the upper tail using a tted Pareto coef cient. To assess the implications of this variation, I re-estimate the series imposing a uniform coarse bracket structure for the top of the distribution across the entire 1896–2020 period and compare the resulting top shares against the baseline estimates that exploit the full disaggregation when available. Figure 1.8 overlays the two series for the top 1%, top 0.1%, and top 0.01%, and Table 1.1 reports the average gap between the two estimates across the four periods of source-bracket availability.

The headline percentile is insensitive to bracket aggregation: the average gap between the baseline and the coarse-bracket alternative remains below 0.003 percentage points for the top 1% across all periods, and the two series are visually indistinguishable in Figure 1.8. Sensitivity grows further into the upper tail. During 1939–1961, the coarse-bracket version overestimates the top 0.1% share by 0.31 percentage points (1.4% in relative terms) and the top 0.01% share by 1.01 percentage points (11%). This re ects a limitation of GPI when the upper tail is observed only through a single 50+ bracket: the method must extrapolate the very top using a

tted Pareto coef cient, which tends to allocate more land to the extreme tail than the actual Egyptian distribution contained.[38] Outside this window, the direction of the bias reverses for the very tail: during 1962–2000, the coarse-bracket version underestimates the top 0.01% share by 0.91 percentage points (21%), because the source itself returns to a coarser structure after 1961 and the standardization to 50+ now removes the 50–100 vs. 100+ distinction that the source still provides.

This pattern has direct implications for the pre-1939 estimates. Because the source tabulations before 1939 do not disaggregate the upper tail, the baseline series for that period uses only the 50+ feddan bracket—structurally equivalent to the coarse version of the post-1939 data. The gaps observed in the 1939–1961 window therefore provide a correction: applied to the pre-1939 series, the correction leaves the top 1% essentially unchanged while reducing the top 0.1% by approximately 0.3 percentage points and the top 0.01% by approximately 1 percentage point. The substantive narrative—that pre-reform Egypt was characterized by extreme land concentration at the very top of the distribution—is unchanged.

1.6.2 Sensitivity to the Landless De nition

The baseline series in Scenario 2 measures the landless population using the male agricultural population from the population censuses (1848–2006). This source provides the longest historical coverage available and aligns with the long-run land inequality series. An alternative source, the agricultural censuses (1929, 1939, 1950, 1961, 1981, 1991, 2000, 2010), enumerates the agricultural workforce directly and distinguishes between permanent and temporary workers, further separating permanent workers into wage earners and unpaid family workers.[39] Permanent wage earners are non-family laborers employed year-round on the land of others and constitute the core landless group, as they rely entirely on agricultural wages and hold no ownership rights. Permanent family workers are unpaid members of landholding households who do not personally own land but may have inheritance prospects. Temporary workers are seasonal laborers hired during peak agricultural periods; given the ambiguity of their ownership status, they are excluded from the baseline de nition of landless.

I construct an alternative scenario (Scenario 2A) using the agricultural census, in which the landless population includes only permanent wage earners aged 15 and above. This corre-

38. When detailed brackets are available, GPI observes that the upper tail is more compressed than the Pareto extrapolation predicts—re ecting the institutional structure of large landownership, where royal estates, waqf, and foreign-owned reclamation companies created a less smooth upper tail than the Pareto form assumes.

39. The rst three rounds — 1929, 1939, 1950 — draw their worker counts from the contemporaneous population census rather than conducting an independent enumeration; independent enumeration begins in 1961.

sponds to the strictest de nition of landless, since wage earners have no formal connection to land ownership and no inheritance prospects. Family workers and temporary workers are excluded: family workers may have future claims through inheritance and are therefore not strictly landless, while temporary workers' seasonal participation and the shifting de nition of this category across census rounds make consistent enumeration unreliable.

Scenario 2A yields a systematically lower count of the landless population than the population-census baseline. The agricultural census enumerates workers through the holdings on which they are employed rather than through occupational classi cation at the household level. While this approach allows for a ner decomposition of the agricultural workforce, it also means workers not consistently attached to a surveyed holding may fall outside the enumeration. The two sources therefore produce qualitatively different pictures of the bottom of the distribution. Under the population-census baseline, the landless population exceeds the size of the bottom 50% of landholders for most of the period, so the bottom 50% of the overall agricultural population effectively holds zero land throughout the series, including after the 1952 reform (Figure 1.5). Under Scenario 2A, the lowest 50% % share is closer to zero in 1900 but starts to converge toward the landholders-only series, re ecting the smaller landless population captured by the agricultural census (Figure A.9). The agricultural census underestimates the extent of land inequality compared to the population-census baseline.

1.7 Mechanisms

This section investigates the institutional mechanisms that shaped both the emergence and the persistence of land inequality in Egypt. First, it examines how nineteenth-century land classi cations, state land allocation, and foreign ownership structured provincial differences in land concentration prior to the agrarian reform. Second, it evaluates whether agro-climatic endowments can explain spatial inequality patterns. Finally, it analyzes the mechanisms through which redistribution occurred after 1952 and identi es which groups ultimately bene ted from the reform.

1.7.1 Institutional Drivers of Land Concentration Before Reform

The persistence of spatial differences before 1952 raises the question of why some provinces were consistently more unequal than others. In addressing this question, the Egyptian case resonates with the argument advanced by Frankema (2010), who shows that land inequality cannot be explained solely by factor endowments or by the identity of the colonial power. Instead,

he emphasizes the decisive role of pre-colonial political structures in shaping how land was distributed under colonial rule.

Although Egypt was not a settler colony in the New World sense,[40] its nineteenth-century land regime was structured by the scal classi cation system and centralized state control over land allocation. The 1877 Statistical Yearbook[41] records provincial land composition at a moment when Egypt's modern property regime was still taking shape. It distinguishes between kharajiya land cultivated in small peasant holdings, `ushuriya land historically associated with larger estates, and state land.

First, there is a strong positive association between the provincial share of `ushuriya land in 1877 and higher inequality in 1951, whereas provinces dominated by kharajiya land were systematically more equal (Figures 1.9). This pattern indicates that nineteenth-century land classi- cations were not merely scal categories but embodied distinct ownership regimes. `Ushuriya land, historically linked to large estates granted to high of cials and members of the royal family, re ected more concentrated and secure property rights, while kharajiya land was associated with smaller peasant holdings. The persistence of this relationship over several decades suggests that early institutional land categories structured long-run distributional outcomes.

State land also played a central role, particularly in moments of weakened state autonomy. Provincial shares of state land in 1877 and in 1930 are positively associated with higher inequality in 1951 (Figures 1.10a and 1.10b). In the late nineteenth century, scal crisis following the 1876 bankruptcy pressured the state to sell public lands, facilitating the expansion of large estates during that period. In the following decades, provincial trajectories diverged: in some provinces, the share of state land declined, consistent with continued public land sales, while in others it increased, re ecting efforts of land expansion and reclamation (Figure 1.10c). Provinces with higher shares of state land in 1930 are also associated with higher inequality in 1951, suggesting that state-controlled land operated as a channel through which concentrated ownership could expand across different institutional contexts.

Foreign ownership constituted an additional mechanism of concentration. Provinces with higher shares of foreign landownership in 1930 tend to exhibit higher inequality in 1951 (Figure 1.12a. Foreign investors participated in the purchase of state and Khedivial lands during debt liquidation and later invested in the reclamation of uncultivated land, particularly in parts of the Delta

40. Galli and Rönnbäck (2021) shows that in Sierra Leone, where land was freely appropriated to settlers, inequality increased substantially.

41. Source: Ministère de l'Intérieur (1877)

and in Aswan. In these provinces, foreign capital operated at scales exceeding typical peasant holdings and contributed to the consolidation of large estates.

The quantitative evidence from the upper tail reinforces this pattern. Between 1900 and 1918, foreigners represented roughly 25–27% of the top 1% of landholders (Figure 1.11), while owning approximately 10% of total private agricultural land despite comprising only about 2% of landowners. Their prominence was closely tied to the late nineteenth-century wave of land company formation associated with debt-driven land sales and reclamation (Baer, 1962). After the nationalist mobilization following the 1919 Revolution and culminating in the 1937 Montreux Convention, the share of foreigners within the top 1% declined from around 20% to about 5% by 1952. This decline was mirrored by a rise in the share of large Egyptian private landholders within the top 1%, increasing from roughly 55% to nearly 80% on the eve of the agrarian reform.

Religious endowments (waqf) operated through a different channel. Rather than generating spatial variation in inequality, waqf arrangements functioned primarily as a mechanism of preservation within the upper tail. Throughout the rst half of the twentieth century, waqf lands accounted for approximately 12% of total cultivable land and consistently represented around 17% of the top 1% of landholders (Figure 1.11). Beyond their charitable functions, waqf arrangements enabled elite families to shield estates from inheritance fragmentation, thereby maintaining concentrated holdings across generations. Their relatively stable presence within the top 1% suggests that they preserved existing concentration rather than explaining spatial land inequalities (Figure 1.12b).

Taken together, these mechanisms indicate that provincial inequality before 1952 was shaped by institutional arrangements governing land classi cation, allocation, expansion, and preservation, rather than by crop suitability or natural fertility. This reinforces Frankema (2010)'s argument that factor endowments alone cannot explain variation in land inequality once institutional variables are taken into account.

1.7.2 Endowments or Institutions? Cotton, Wheat, and the Size Distribution of Landholdings

Engerman and Sokoloff (2002) argue that suitability for export-oriented cash crops fosters large-scale production and, consequently, higher land inequality. Egypt's specialization in cotton, the country's principal export crop since the mid–nineteenth century, offers a test of this hypothesis.

While the qualitative literature (Baer, 1962; Abbas and El-Dessouki, 1998) broadly con rms that cotton was cultivated on large estates, this association has not been examined systematically across the size distribution of landholdings.

I test it in two complementary ways. First, I examine how cotton cultivation intensity correlates with the entire distribution of landholdings before 1952, in order to identify which segments of the ownership distribution were driving cotton production. I then conduct the same exercise for wheat, Egypt's principal food crop, as the opposite case predicted by the Engerman–Sokoloff hypothesis. Cotton and wheat intensity are measured at the province level as the share of each crop out of total cropped area. The size distribution of landholdings is captured at the province level by the share of provincial land held in each of six ownership brackets (1922–1938): less than 5, 5–10, 10–50, 50–100, 100–200, and above 200 feddans.[42]

Figure 1.13 reports the results. Cotton intensity follows a clear inverted-U pattern: it is negatively correlated with smallholdings under 10 feddans (r 0:36 to 0:49, p < 0:001), turns positive among medium-large holdings the 50–100 (r = 0:63) and 100–200 feddans brackets (r = 0:69), and falls back to a statistically insigni cant 0.11 above 200 feddans. Wheat exhibits the mirror image: positively associated with smallholdings under 10 feddans (r 0:44) and strongly negatively associated with estates between 50 and 200 feddans (r 0:60 to 0:67). Cotton was therefore not the crop of large landownership in general, but speci cally of the medium-large stratum between 50 and 200 feddans, while wheat was the crop of the smallholder.

The 50–200 feddan stratum cultivates cotton because it combines three institutional advantages: credit access, drainage capacity, and operational scale. The 1912 Five Feddan Law made holdings of ve feddans or less inalienable for debt, which while protecting smallholders from foreclosure had the effect of rendering their land unusable as collateral and cutting them off from formal mortgage credit (Baer, 1962, pp. 89–90).[43] Later state-credit institutions ostensibly designed for smallholders were similarly captured by large landowners: the Crédit Agricole Égyptien, founded in 1931, raised its property-size eligibility cap from 40 to 200 feddans, and large owners further accessed its low-interest loans through dummy borrowers and elite-controlled agricultural co-operatives (Baer, 1962, p. 88).[44] Credit was then deployed to install private pumping stations and drains and to nance the chemical fertilizers and improved

42. I focus on this period because the Statistical Yearbooks began disaggregating the top of the landholding distribution above 50 feddans, allowing me to track ownership up to 200+ feddans.

43. The law was amended in 1913 and again in 1916 to clarify the de nition of debts covered.

44. Panza and Karakoç (2021) report that small loans never exceeded 20% of the Crédit Agricole's total lending.

seeds that interwar cotton required — investments smallholders could not afford given their fixed costs.

Beyond credit and capital, cotton cultivation also required a labor force organized at scale. Labor was secured through the 'izbah system, where peasants received small subsistence plots in exchange for cotton- eld labor at reduced wages, or through sharecropping, where landlords decided what to plant. Both arrangements required an estate large enough to sustain a resident workforce and a landlord on the ground to assign fields, supervise labor, and time the cropping cycle. Panza and Karakoç (2021) con rm this institutional bundle empirically, nding that credit access and large landownership are the two strongest determinants of interwar cotton output, though their analysis pools all holdings above 50 feddans into a single category.

The bracket-level evidence in Figure 1.13 sharpens this picture in two directions. Estates above 200 feddans operate on a different logic: they are disproportionately royal, waqf, and foreign-owned reclamation lands whose owners are absent from village life and lease their estates to resident middleman families who re-lease to cultivators at a pro t (Harik, 1974). Cotton cultivation requires the direct managerial presence that the 50–200 feddan stratum supplies and absentee owners cannot. At the opposite end, smallholders are excluded by the same arrangements that enable the 50–200 feddan stratum. Cut off from formal credit, they borrow from large landowners and village notables at signi cantly higher interest rates (Abbas and El-Dessouki, 1998), deepening dependence on the same elite who controlled the formal channels, and concentrate on wheat and other food crops that need no capital, no specialized infrastructure, and can be consumed by the household rather than sold.

As a complementary check, I also test the Engerman–Sokoloff hypothesis using FAO-GAEZ agro-climatic suitability indices for cotton and wheat (Figure A.10 in the Appendix). Suitability is, if anything, negatively associated with provincial land inequality in 1951—a pattern that runs counter to the Engerman–Sokoloff prediction. This exercise carries two technical limitations: the FAO-GAEZ indices are constructed from agro-climatic data starting in 1960, after my period of study, and the algorithm does not adequately capture the fertility of irrigated versus rain-fed land (Saleh, 2024). More fundamentally, modeled suitability does not capture the institutional conditions—credit, drainage, labor arrangements—that determined which crops were cultivated where. The actual cultivation patterns in Figure 1.13 provide a more direct window onto how crop choice and land concentration co-evolved in practice.

1.7.3 Who bene ted from redistribution

Table 1.2 examines how the shares of different farm-size groups changed between 1951 and 1970. The reform explicitly targeted holdings under 5 feddans for redistribution. However, expansions among other farm-size groups (5–50 and 50–100 feddans) suggest that additional mechanisms shaped the distribution of gains. Understanding who bene ted therefore requires distinguishing between the reform's intended bene ciaries—ultra-smallholders—and those who acquired land through indirect channels.

1.7.3.0.1 Regional patterns

Regional patterns reveal that redistribution often bene tted intermediate landholders alongside the smallest holders. As shown in Table 1.2, the Delta region began with the highest concentration of large estates, with holdings above 100 feddans accounting for 31.1% of total land. During the reform period, ultra-smallholders expanded substantially, increasing by 52.7%. However, medium-large holdings (50–100 feddans) also expanded by 44.8%, indicating that gains were not limited to the smallest farms.

Middle Egypt, which had a lower initial concentration of large estates (24.0%), exhibits a somewhat different pattern. Ultra-smallholders experienced the largest expansion among regions, growing by 53.6%, while medium-large holdings expanded more moderately (16.4%). Redistribution in this region appears somewhat more concentrated toward the lower end of the distribution.

Upper Egypt presents a contrasting pattern. Despite having the lowest initial concentration of large estates (16.2%), ultra-smallholders experienced the slowest growth, increasing by only 16.9%. Medium-large holdings expanded by 28.9%, while farms between 5 and 50 feddans grew by 21.2%. In this region, redistribution appears to have bene ted intermediate proprietors more strongly than ultra-smallholders.

These regional differences re ect the interaction of several institutional mechanisms during implementation. First, the reform allowed a ve-year adjustment period before expropriation during which large landholders could voluntarily sell portions of their estates before expropriation (Harik, 1974). Such transactions tended to favor buyers with suf cient capital, typically medium-sized landholders rather than landless cultivators (Waterbury, 1983). Second, some estates were subdivided among family members under separate legal titles to circumvent ceiling limits and preserve family control (Saad, 1988)[45]Finally, agricultural land held by companies

45. One example of reform evasion: Pasha in Ezbet Murgâni sold 250 feddans to his son-in-law in 1955 and

remained largely exempt from ceiling enforcement[46]. Together, these mechanisms redirected part of the redistributed land toward intermediate holdings especially the medium-large holdings.

1.7.3.0.2 Did the landless bene t?

Although tenants and cultivators on expropriated estates were the main intended bene ciaries, a large share of the rural population consisted of landless agricultural workers. The agricultural population therefore provides a useful proxy for landless and rural labor dependency. Examining its distribution across provinces helps assess whether redistribution targeted areas with larger landless populations.

Figure 1.14 presents two tests of this relationship. Panel (a) plots the share of the agricultural population in 1947 relative to the total male population against the subsequent change in the share of land held in estates above 100 feddans between 1951 and 1970. Panel (b) plots changes in the landless share against the same decline in large estates. In both cases, the relationship is weak and statistically insigni cant. Provinces with larger agricultural populations prior to reform were not more likely to experience larger reductions in large estates, and declines in large estates were not systematically associated with reductions in landless.

Taken together, these results suggest that the agrarian reform reduced concentration at the top of the distribution but did not substantially alter the structure of rural landless. Redistribution expanded the ranks of small and intermediate proprietors, reaching much of the lower 90% of landholders, but access to land remained limited for the bottom half of the rural population.

Part of this outcome re ects the constraints of implementation. While expropriation affected large estates, as illustrated by the sharp decline in the top 0.5% and 0.1% of landholdings between 1950 and 1971, some estates were too large to be rapidly subdivided or sold before enforcement. In addition, part of the con scated land remained under state control rather than being redistributed to smallholders (Ayeb, 2010). This is re ected in the modest decline in privately held agricultural land between 1952 and 1980 (Figure A.1).

In comparative perspective, Egypt's reform substantially reduced land inequality but did not eliminate it. Prior to reform, the land Gini ranged between roughly 0.7 and 0.8. Redistribution reduced inequality to around 0.4 across regions, but this remains far above the near-equalization

registered the rest in the names of his own children and the children of his two Lebanese business partners.

46. This is clear for provinces like Aswan and Behera were land companies were strongly present before 1952 and they remained the two provinces with the highest share of 100+ feddans after the implementation of the agrarian reform

observed in more radical reforms. In China, for example, Alesina et al. (2020) show that revolutionary land reform reduced county-level land Ginis from about 0.5 to below 0.1. In India, land reforms were more limited and landless remained widespread, with land inequality continuing to play an important role in shaping wealth inequality (Bharti et al., 2024).

Evidence from West Bengal further illustrates the importance of institutional design. Banerjee et al. (2002) show that tenancy reform increased both productivity and tenant security, suggesting that tenancy regulation may be more effective than ceiling policies alone. In Egypt, tenancy regulation initially supported smallholder cultivation by stabilizing rental conditions and lowering costs through cooperative institutions. It also blocked land re-concentration through the land market itself: as Saad (1988) documents, landowners could not easily sell at market prices when their plots were occupied by tenants whose protected leases travelled with the land, depressing the resale value of estates encumbered by long-term tenancies. However, the liberalization of tenancy laws in 1997 reversed many of these gains. Rising land prices and the removal of tenant protections contributed to renewed concentration among large landholders (Ayeb, 2010).

The Growth Incidence Curve for 1995–2020 highlights this reversal (Figure 1.15). Whereas the reform period (1950–1970) exhibited a progressive pattern—with gains among lower and middle deciles and substantial losses at the top—the post-1992 period displays the opposite dynamic. Growth becomes concentrated at the apex of the distribution, particularly among the top 0.5% and 0.1%, while the bottom 60% experiences sustained declines.

1.8 Conclusion

This chapter reconstructs the long-run evolution of land inequality in Egypt from 1896 to 2020 using newly digitized scal-cadastral tabulations and integrating the landless population through population census data. Three phases emerge. Before 1952, private agricultural land was highly concentrated: the top 1% held 45–47%, the top 0.1% alone owned as much as the next 40%, and the bottom 50% held about 5%. Once the landless are included, the bottom half of the rural population held essentially no land. The 1952 agrarian reform produced the only sustained compression of the period, reducing the top 1% share to 27% by 1970 and shifting the majority of land toward small and lower-middle landholders. Regional disparities also converged. After 1992, the dismantling of tenancy protections reversed this trajectory, and the top 1% share rose back to 33

Two ndings emerge on mechanisms. First, pre-reform concentration was institutional rather

than ecological. Provinces dominated by `ushuriya land were systematically more unequal than those dominated by kharajiya land, and state land allocation, foreign investment, and waqf arrangements operated alongside this baseline to entrench concentration. Cotton suitability is, if anything, negatively associated with inequality, contrary to the Engerman–Sokoloff prediction. Cotton was cultivated not by the largest estates but by the 50–200 feddan stratum, where credit access, drainage capacity, and resident labor combined to support intensive export production. Second, redistribution operated unevenly within the ceiling. Voluntary sales during the grace period, family subdivision under separate legal titles, and corporate exemptions diverted part of the redistributed land toward medium and medium-large holdings, particularly in the Delta and Upper Egypt. Provinces with larger landless populations were not more likely to experience larger reductions in concentration.

The post-reform trajectory clari es which institution sustained the compression. Ownership ceilings were lifted in 1978, yet concentration only began to re-expand fourteen years later, after tenancy protections were dismantled in 1992. The 14-year gap between the 1978 lifting of ownership ceilings and the onset of re-concentration after the 1992 dismantling of tenancy protections is consistent with tenancy regulation, rather than ownership ceilings, as the binding institutional constraint sustaining the post-reform distribution. More broadly, the Egyptian case shows that long-run wealth inequality in a Muslim-majority agrarian economy can be reconstructed from scal-cadastral evidence at a level of detail comparable to the European preindustrial literature, and that the institutional con gurations speci c to this setting — dual land classi cations, waqf, and the tenancy framework built after 1952 — shaped both the persistence of inequality before reform and the channels through which redistribution was implemented and ultimately reversed.

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Note: Detailed breakdown of private agricultural land by ownership brackets, ranging from less than 1 feddan to over 2,000 feddans. Each bracket reports the number of landholders
total area owned (in feddans), covering 1953–1957 and disaggregated by Egyptians, foreigners, and waqfs. 1 feddan = 0.42 hectares. Source: Statistical Yearbook of 1959.

Figure 1.1 – Land Ownership Tabulation from the Statistical Yearbook of 1959

Note: Land-area shares among landholders only (Scenario 1: landholders only). Source: Own estimations using Generalized Pareto Interpolation.

Figure 1.2 – Top 1%, Next 9%, and Bottom 90% Land-Area Shares, 1896–2020

Note: Land-area shares among landholders only (Scenario 1: landholders only). Source: Own estimations using Generalized Pareto Interpolation.

Figure 1.3 – Top 10%, Middle 40%, and Bottom 50% Land-Area Shares, 1896–2020

Note: The total rural agricultural population is de ned as the sum of landless agricultural laborers (males in agriculture from Egyptian population censuses) and registered landowne
(from the mukallafat). Source: Own estimations.

Figure 1.4 – Landless and Landowners as a Share of the Total Rural Agricultural Population, Egypt 1896–2020

Note: Bottom 50% land-area shares under two scenarios. Scenario 1 (blue): landholders only only. Scenario 2 (orange): including agricultural workers without land as landless, expanding the population base. Source: Own estimations.

Figure 1.5 – Bottom 50% Land-Area Share: Landholders Only vs. Including the Landless, 1896–2020

(a) Middle 40% (p50p90)

(b) Next 9% (p90p99)

(c) Top 10% (p90p100)

(d) Top 1% (p99p100)

(e) Top 0.5% (p99.5p100)

(f) Top 0.1% (p99.9p100)

Note: Each panel compares land-area shares under Scenario 1 (blue, landholders only) and Scenario 2 (orange, including landless agricultural workers). Including the landless exp
the population base without altering land ownership at the top. Source: Own estimations.

Figure 1.6 – Land-Area Shares: Landholders Only vs. Including the Landless

(a) 1915 (b) 1951 (c) 1970

Note: Land Gini coef cient by province, computed from grouped ownership data (six bins: <5, 5–10, 10–50, 50–100, 100–200, >200 feddans). Source: Statistical Yearbooks, variou years.

Figure 1.7 – Land Gini by Province, 1915–1970

(a) Top 1% (p99p100)

(b) Top 0.1% (p99.9p100)

(c) Top 0.01% (p99.99p100)

Note: Each panel compares top land-area shares under two bracket structures: baseline (navy, solid) uses the full disaggregation available from 1939 onward; the coarse alterna (maroon, dashed) collapses holdings above 50 feddans into a single bracket throughout. Vertical lines mark 1939 (detailed brackets introduced) and 1961 (return to coarser report
Source: Own estimations using Generalized Pareto Interpolation.

Figure 1.8 – Sensitivity of Top Shares to Bracket Aggregation, 1896–2020

	Top 1%		Top 0.1%		Top 0.01%	
Period	pp	%	pp	%	pp	%
Pre-1939 (coarse source)	0.000	0.0	0.000	0.0	0.000	0.0
1939-1961 (detailed source)	-0.001	-0.0	-0.309	-1.4	-1.006	-11.1
1962-2000 (coarse source)	-0.001	-0.0	-0.226	-2.3	0.915	20.7
Post-2000 (quality issues)	0.003	0.0	-0.124	-0.9	0.840	13.1

Notes: The table reports the average gap between top-share estimates obtained under two bracket structures: the baseline, which uses the full disaggregation available in t source tabulations from 1939 onward, and a coarse alternative collapsing all holdings above 50 feddans into a single bracket. Gaps are computed as detailed minus coarse. “p reports the average gap in percentage points; “%” reports the gap as a percentage of the baseline estimate. Periods re ect changes in source-bracket availability: pre-1939 t source reports only the 50+ feddan bracket (the two estimates coincide by construction); during 1939–1961 the source disaggregates the upper tail up to 2000+ feddans; afte 1961 the reports return to coarser brackets; post-2000 the tabulations exhibit additional inconsistencies in bracket reporting.
Source: Author's calculations from the Statistical Yearbooks (1896–1961) and Reports on Agricultural Land Ownership (1970–2020).

Table 1.1 – Average Gap Between Detailed and Coarse-Bracket Estimates of Top Land Shares, by Period

(a) `Ushuriya Land

(b) Kharajiya Land

Note: Each point represents a province. The x-axis shows the share of provincial land classi ed as `ushuriya (a) or kharajiya (b) in the 1877 Ottoman cadastre. The y-axis shows the Gini in 1951. Provinces are coloured by region: Delta (blue), Middle Egypt (orange), Upper Egypt (red). Dashed line shows OLS t with 95% con dence band. Source: 1877 Statistic Yearbook, Tableau LVII.

Figure 1.9 – Mulk Land Classi cation (1877) and Land Gini, 1951

(a) State Land (1877) and Land Gini (1951) (b) State Land (1930) and Land Gini (1951) (c) State Land Persistence (1877–1930)

Note: Each point represents a province, coloured by region: Delta (blue), Middle Egypt (orange), Upper Egypt (red). Panel (a): State land share in 1877 (x-axis) vs. land Gini in 195 (y-axis). Panel (b): State land share in 1930 (x-axis) vs. land Gini in 1951 (y-axis). Panel (c): State land share in 1877 (x-axis) vs. 1930 (y-axis). All panels show OLS t lines with 95 con dence bands. Sources: State land shares from Ministère de l'Intérieur (1877) and 1930 Statistical Yearbook; land Gini estimated from 1951 Statistical Yearbook.

Figure 1.10 – State Land, Institutional Persistence, and Land Inequality

Note: Top 1% land-area share decomposed by nationality (Egyptian vs. foreign) and property type (waqf vs. non-waqf). Source: Own estimations.

Figure 1.11 – Decomposition of the Top 1% Land-Area Share by Owner Type, 1896–1959

(a) Foreign-Owned Land (1930)

(b) Waqf Land (1930)

Note: Each point represents a province. The x-axis shows the share of cultivated land held by foreign owners (a) or as waqf (b) in 1930. The y-axis shows the land Gini in 1951. Provinces are coloured by region: Delta (blue), Middle Egypt (orange), Upper Egypt (red). Dashed line shows OLS t with 95% con dence band. Source: 1930 Cadastre.

Figure 1.12 – Foreign and Waqf Landownership (1930) and Land Gini, 1951

Note: Province-level pairwise correlations between crop intensity (cotton, left panel; wheat, right panel) and the share of provincial land held in each ownership bracket, for the pre-1
period. Vertical bars are 95% con dence intervals computed via Fisher's z-transformation. Source: Author's calculations from Panza and Karakoç (2021) and Statistical Yearbook

Figure 1.13 – Cotton and Wheat Cultivation Intensity and the Size Distribution of Landholdings, Pre-1952

Province	100 fed. (1951, %)	<5 fed. D (%)	5–10 fed. D (%)	10–50 fed. D (%)	50–100 fed. D (%)	100 fed. D (%)
Delta						
Gharbia	30:1	95:7	13:5	18:6	5:2	86:9
Behera	46:3	58:0	51:5	26:0	85:5	58:0
Sharkia	32:5	49:5	38:5	10:9	151:0	96:3
Kalyoubia	18:1	41:4	27:5	3:0	47:3	79:1
Menou a	8:3	18:4	1:9	10:4	13:7	95:2
Dakahlia	28:5	17:9	29:7	13:7	14:7	44:5
Delta Aggregate	31.1	52.7	27.2	1.9	44.8	-73.4
Middle Egypt						
Fayoum	25:6	75:6	37:0	29:5	33:7	66:2
Menia	30:9	69:3	61:7	15:4	15:8	89:9
Beni Suef	17:4	32:4	6:0	0:4	13:4	83:1
Giza	14:9	32:1	7:5	5:4	16:0	90:2
Middle Egypt Aggregate	24.0	53.6	10.0	-2.7	16.4	-81.8
Upper Egypt						
Qena	15:9	35:4	7:3	1:9	1:4	100:0
Assiut	13:0	24:3	7:2	9:3	33:5	87:3
Aswan	52:6	21:5	99:9	66:3	94:0	41:0
Suhag	4:2	10:2	11:1	24:5	188:0	100:0
Upper Egypt Aggregate	16.2	16.9	7.6	13.6	28.9	-80.7

Notes: The rst column reports the share of private agricultural land held in holdings 100 feddans in 1951 (in percent). The remaining columns report percentage changes in land share by farm-size category between 1951 and 1970: <5 feddans, 5–10 feddans, 10–50 feddans, 50–100 feddans, and 100 feddans. Provincial values are shown individually with regional aggregates calculated by summing provincial totals within each region.
Source: Statistical Yearbooks of Egypt, 1951 and 1970; author's calculations.

Table 1.2 – Growth in Land Share by Size Group (%, 1951–1970) and Initial Concentration

(a) Initial landless share

(b) Changes in landless share

Note: Each point represents a province. Panel (a) plots the landless share of the agricultural population in 1947 against the change in the share of land held in estates of at least
feddans between 1951 and 1970. Panel (b) plots the change in landless population share (1947 & 1960) against the change in the share of land held in estates of at least 100 fedda
& 1970). Provinces are coloured by region: Delta (blue), Middle Egypt (orange), Upper Egypt (red). The dashed line shows the OLS t with a 95% con dence band. Source: Egyptia
Population Censuses (1927–1960); Statistical Yearbooks.

Figure 1.14 – Landless Population and the Redistribution of Large Estates

Note: Growth in relative average holdings (as percentage of mean) by decile across four phases: Pre-reform (1930–1950); Reform (1950–1970); Post-reform (1970–1995); Post-1
(1995–2020). Relative holdings measured as each decile's average as a percentage of the overall mean holding size. Source: Own estimations.

Figure 1.15 – Growth Incidence Curves by Decile: Relative Average Holdings Across Reform Phases (1930–2020)

Chapter 2

Redistribution Without Inclusion? Land Reform and Political Turnover in Egypt, 1936–1976

Co-authored with Mohamed Saleh (LSE) and Allison Spencer Hartnett (USC).

2.1 Introduction

In agrarian economies, landed wealth sustains the patron-client networks, tenancy relations, and local in uence that allow large landowners to monopolize legislative seats across successive electoral cycles (Ziblatt, 2008; Montalbo, 2023; Dal Bó et al., 2009; Querubin, 2016). Land reform, by expropriating these holdings, directly targets the material basis of this incumbency advantage. Yet whether expropriation actually breaks the pattern of elite monopolization in the legislature — and if so, whether it opens political access to new actors or merely reshuf es seats among existing competitors — has not been tested. Existing work has examined downstream political consequences of land reform — intrastate con ict (Finkel et al., 2015; Domenech and Herreros, 2017), clientelism (Casaburi et al., 2021), and electoral behavior (Albertus and Schouela, 2025; Paredes Castro, 2023) — but the effect on legislative incumbency itself remains an open question.

This article studies the political effects of land redistribution from large landowners to the landless and small landholders. We focus on parliamentary cycle-to-cycle turnover, the share of

MPs in a given cycle who did not serve in the immediately preceding one, which is the empirical counterpart to the incumbency advantage. Land reform should affect this margin directly: landed MPs derived their seats from the rural resources, family networks, and local authority that ownership conferred, so stripping that economic base weakens the advantage that returned them cycle after cycle. Whether higher turnover re ects genuine political opening or merely reshuf ing within the existing political class is, however, a separate question. Parliaments in agrarian societies are where rural class hierarchy is institutionalized, and where the resources that determine who wins elections most directly translate into political continuity. Removing the top of this hierarchy, whether through economic expropriation or electoral exclusion, need not dismantle the structure itself: the stratum directly below can simply move up to ll it. We therefore decompose turnover along two dimensions: between new entrants and returnees (MPs who served in earlier but non-consecutive cycles), and between individual-MP and family-level measures. This separates genuine political opening, in which seats pass to actors from outside the established political class, from reshuf ing within that class. The decomposition is the interpretive core of our analysis and is only possible because we track individuals and families across ve decades of parliamentary records.

We interpret the political effects of reform through a truncation framework. Expropriation removes the top of the landholding distribution but does not alter the conditions that determine who wins elections — the resources, social capital, and family networks concentrated within an existing political class. Reform therefore truncates rather than reshapes the pool of viable political actors: seats vacated by the landed elite are lled through rotation among the middle landholding families just below the expropriation ceiling, rather than through the entry of genuinely new actors from outside this class. The framework implies three empirical patterns that our measurement strategy can examine: post-reform cyclical turnover should rise; new entry should not rise differentially with reform intensity; and the effects should be concentrated in districts where a medium-landholding stratum exists to absorb the displacement.

Egypt in 1952 provides a nearly ideal setting to examine whether redistributive reform produces political displacement. Following the Free Of cers' coup, the new revolutionary regime launched an immediate land reform explicitly framed as both an economic and political project — dismantling a landed elite that had long dominated both the agrarian economy and parliamentary representation under the monarchy (Baer, 1962; Abbas and El-Dessouki, 1998). The reform expropriated landholdings above 100 feddans[1] and redistributed them to tenants and

1. 1 feddan = 0.42 ha

smallholder farmers, while leaving the middle landholding class below the expropriation ceiling intact. The reform was radical enough in scope to meaningfully threaten the political dominance of the landed elite, and the regime that enacted it had no ties to the landed class and every incentive to dismantle its political infrastructure. Egypt also maintained parliamentary elections both before and after 1952, allowing the composition of the political class to be traced continuously across the reform.

We assemble a new dataset covering the universe of Egyptian MPs from 1924 to 1976, drawn from Subhi (1947) and expanded using the Parliamentary Archives, and matched at both the individual and family level — giving us a rare longitudinal view of legislative representation across regime changes, revolutions, and reform. We combine it with district-level data on land redistribution from the 1961 Agricultural Census, which allows us to exploit within-country variation in reform intensity — ranging from essentially no redistribution in some districts to over 30% of cultivated land in others — re ecting the geography of pre-reform land concentration rather than strategic political choices. Our empirical strategy is an event study comparing changes in turnover and entry between districts with different levels of exposure to land redistribution across parliamentary cycles from 1936 to 1976.

The Egyptian parliament underwent a compositional transformation after 1952. Aggregate turnover remained high, but rst-time entrants replaced the rotating pool of established politicians that had characterized the monarchy era. Under the monarchy, MP-level turnover was consistently high, at 80 to 90% across cycles, but this masked a narrow political class: returnees — MPs who had served previously, exited, and re-entered — accounted for roughly half of all incoming MPs, while genuinely new entrants made up most of the rest. The monarchy-era parliament thus operated on a musical chairs logic, rotating frequently among an established pool. After 1952, returnees largely disappeared, and rst-time entrants became the dominant source of parliamentary renewal. Yet family-level patterns show that this renewal was partial. Before 1952, fewer than 20% of MPs came from genuinely new families; after 1952, new family entry rose but some pre-1952 dynastic families continued to serve.

Land reform raised cycle-to-cycle MP turnover in high-redistribution districts but did not signi cantly affect the entry of new political actors. Using an event-study design that compares cycle-to-cycle changes in political outcomes across districts with higher and lower redistribution intensity, we nd that the reform raised MP turnover by roughly 5 percentage points in the rst post-reform cycle, rising to approximately 10 percentage points by the 1970s, large enough to close the 12 percentage-point pre-reform gap between high- and low-redistribution districts.

The effect grows across cycles compared to the baseline and stabilizes at its peak through the 1970s, indicating a sustained cycle-by-cycle reshuf ing of MPs. New entry effects, by contrast, are statistically indistinguishable from zero across all post-reform cycles, with con dence intervals ruling out large positive effects. These patterns are consistent with expropriation weakening the dominance of the landed elite and eroding the incumbency advantage that had let the same MPs hold seats cycle after cycle, while the national-level rise in rst-time entrants after 1952 re ected the regime's centralized candidate selection, which operated uniformly across districts rather than as a local response to the reform.

The same pattern holds at the family level: the reform raised dynastic turnover but did not admit new families into parliament. Family turnover rose by up to 11.5 percentage points in the 1970s, closing the 11 percentage-point pre-reform gap with low-redistribution districts. The effect emerges later than at the MP level, consistent with dynastic incumbency offering a buffer beyond what personal incumbency alone provided: in the rst post-reform cycles, individual MPs could change while their families retained the seat, masking continuity at the family level until the 1970s, when families themselves began to be reshuf ed. As at the MP level, the effect on new family entry is statistically indistinguishable from zero, and the national-level rise in new family entrants after 1952 re ects a system-wide pattern rather than a local response to redistribution. Once landed MPs lost the economic base that had returned them unchallenged, the reshuf ing that followed worked rst through individual MPs and later through their families.

Together, these ndings match the three patterns predicted by the truncation framework. The reform's political effects operated through two pre-reform structural conditions: a history of oligarchic political concentration and a strong presence of medium landholders just below the reform ceiling. In districts combining both conditions, turnover effects peak at 17 percentage points for MPs and 26 for families; where either condition is absent, the reform produces no detectable political effects. The heterogeneity identi es the mechanism: the reform dismantled dynastic dominance in districts where it existed, and the displacement was absorbed by a previously subordinate rural middle stratum — Binder's second stratum (Binder, 1978) — whose members had suf cient resources and local networks to sustain political ambition but had been historically blocked by the landed elite above them. The sustained rotation at both the MP and family levels, combined with the absence of new-family entry, indicates that this stratum captured the political vacuum without expanding it: seats rotated persistently among a narrow set of medium-landholder families, but none reconsolidate the durable dominance the old landed elite had held.

To our knowledge, this paper is the first to directly examine the effect of redistributive land reform on legislative turnover. Existing empirical work has examined downstream political effects — intrastate conflict (Finkel et al., 2015; Domenech and Herreros, 2017; Albertus, 2020), clientelism and party support (Casaburi et al., 2021; Fergusson et al., 2022), and voting behavior (Chiang et al., 2025; Paredes Castro, 2023; Albertus and Schouela, 2025) — and a related literature shows that even radical redistribution fails to dismantle elite advantage in the long run through human capital and kinship networks (Alesina et al., 2020) or colonial land institutions (Banerjee and Iyer, 2005). The link between expropriation and political displacement itself has been assumed rather than demonstrated (Albertus, 2015). The studies closest to our question are set in democratic contexts — Spain, Italy, and Portugal (Domenech and Herreros, 2017; Casaburi et al., 2021; Albertus and Schouela, 2025) — or examine political consequences after democratization in cases where reform was originally enacted under authoritarian rule (Paredes Castro, 2023; Fergusson et al., 2022; Chiang et al., 2025). Our setting allows us to test this directly within the autocratic regime that enacted reform. We focus on the reform's effect on the incumbency advantage of political actors, which lets us distinguish whether the reform displaced the dominant landed elite in favor of genuinely new political actors from outside the established political class, or whether it merely reshuffled seats within that class without democratizing access to office.

This connects to a second contribution, to the literature on land inequality and political inclusion. A foundational strand of this literature argues that land concentration blocks democratization by enabling rural elites to dominate economically dependent populations (Boix, 2003; Acemoglu and Robinson, 2006). Empirical studies confirm this logic: Ziblatt (2008) shows that land inequality led legislators to oppose suffrage reform in Prussia, and Montalbo (2023) documents how landholding inequality enabled coercion of landless workers in nineteenth-century France. Our findings speak to the flip side of this argument. Even after a revolutionary reform reduced land concentration, political inclusion does not follow. The boundaries of access to office persist not because landed elites block entry from above, but because the conditions that determine who wins elections — resources, social capital, family networks — remain concentrated within an existing stratum.

Finally, we contribute to the historiography of Egyptian land reform. Early accounts describe reform as a political tool aimed at eliminating landed elite influence (Baer, 1962), while Binder (1978) emphasizes the creation of new opportunities for what he terms the second stratum of rural families, or medium landowners in our study. Others have highlighted the limitations of

the reform, showing that many members of the old elite were not fully dispossessed and in some cases regained in uence under subsequent regimes (Ayeb and Bush, 2015; Bush, 1993, 2011). Our empirical ndings provide the rst evidence to assess these competing claims. We nd that Binder (1978)'s account is closest to what the data show — reform empowered the middle landholding class rather than eliminating elite politics — but we go further in showing that this empowerment produced new dynastic structures rather than genuine political openness, and that its effects persisted through the end of the Sadat period.

2.2 Historical Context

2.2.1 Egyptian Parliament

The Egyptian parliament dates back to the precolonial period before the British occupation in 1882. The rst parliamentary cycle was in 1824–1837 during the reign of the autonomous Ottoman viceroy Muhammad Ali Pasha (1805–1848), and subsequent cycles took place under his descendants from 1866 to 1882. During this period, the parliament was consultative and did not have legislative power. Following a failed attempt at instigating legislative power and executive constraints in 1879–1882 that ended with the British occupation, the parliament — which became bicameral from 1883 to 1913 then unicameral from 1913 to 1923 — preserved its advisory role up until 1923.

2.2.1.0.1 The Parliament before 1952

Following the 1919 anti-colonial revolution, Great Britain recognized Egypt's independence in 1922, imposing a semi-constitutional monarchical regime that reserved broad powers for King Fouad I and his colonial allies (Hinnebusch, 1984). A new constitution promulgated in 1923 established a bicameral legislature with competitive multi-party elections.[2]

Parliamentary politics under the constitutional monarchy was formally competitive but substantively oligarchic. Landed elites dominated representation across the period, both directly — through minority parties largely controlled by large landowners — and indirectly, through their alliance with the Wafd, the nationalist secular liberal party that led the 1919 revolution and won every honest election it contested (Hinnebusch, 1984). The Wafd represented a coalition of the urban professional class, the rural landowning middle class, and landed elites supportive of nationalist politics, and its electoral dominance in the 1920s rested in part on this agrarian

2. Elections were indirect from 1924 to 1936: voters elected “electors” who then voted for MPs. From 1936 onwards, elections became direct. The franchise was extended to all adult male Egyptians aged 21 and above.

base. Yet competitive politics remained fragile. The monarch and British authorities repeatedly dissolved parliament, rigged elections, and installed minority governments.[3]

Under King Farouk I (1936–1952), obstruction intensified: the Wafd was repeatedly blocked from power, and as the party unraveled internally — oscillating between opposition and accommodation with the regime (Hinnebusch, 1984) — it pivoted toward conservatism to retain its remaining constituency of large landowners. The result was a parliamentary class that, across regime alternations, remained anchored in the propertied elite. Widespread discontent following post-war distributive crises and Egypt's defeat in the 1948 Arab-Israeli war ultimately produced the Free Officers' coup that deposed Farouk I in July 1952 — and made the landed parliamentary elite the primary target of the new regime's reform agenda.

2.2.1.0.2 Single-Party System (1953–1962)

Following the 1952 coup, the new military regime abolished the monarchy, suspended parliament, forced the Wafd from power, and declared a republic in 1953. Political parties were banned and replaced with a single-party system to consolidate power and prevent organized opposition. The regime cycled through two party organizations in this period.[4] The 1956 constitution established a unicameral parliament and a single-party system, where candidates for parliamentary elections were required to be members of the ruling party. Crucially, the party's executive committee screened all candidates, approving only 1,188 out of 2,500 nominees for the 1956 elections — establishing a gatekeeping function that would characterize all subsequent parliaments. The formation of the United Arab Republic (UAR) with Syria in 1958 led to the dissolution of the 1956 parliament and the creation of a new legislature elected in 1960.[5] The UAR's collapse in September 1961 triggered the dissolution of the 1960 parliament and the overhaul of the party system, paving the way for the Arab Socialist Union.

2.2.1.0.3 Arab Socialist Union (1962–1976)

The ASU, established under the National Charter of July 1962, represented the regime's most ambitious attempt to organize political life under authoritarian rule. ASU membership was required to be eligible for appointment or election to any cooperative board, local, regional, or

3. Most notably following the promulgation of the authoritarian 1930 constitution, which handed power to parties more representative of large landowner interests until popular protests forced its repeal in 1935.

4. The first was the Liberation Rally (1953–1957), which governed the transition from rule by the Revolutionary Command Council (RCC) to rule via a state-sponsored party (Waterbury, 1983). In 1954, the RCC was dissolved and Nasser assumed the presidency, first on a de facto basis in 1954–1956, then on a de jure basis with the promulgation of the 1956 constitution. The National Union replaced the Liberation Rally in 1957, with all adult Egyptians designated as members by default. As Waterbury (1983) notes, the National Union "never was given a chance to establish itself," and the failures of both organizations demonstrated their ineffectiveness in the policy process, paving the way for the ASU.

5. The new 600-seat legislature comprised 400 Egyptian and 200 Syrian deputies.

national assembly, or board of any union or professional association. While membership was formally voluntary, elite families, educated professionals, and anyone seeking government positions or political office could ill-afford to remain outside the organization (Waterbury, 1983). The National Charter also mandated that at least 50% of all elected seats in each constituency be reserved for workers and farmers.[6] Village- and district-level committees were left for relatively free elections, as these local committees did not threaten the central government, which implemented policies through its own civil bureaucracy (Weipert-Fenner, 2020).

Starting from 1964, the National Assembly consisted of 360 members, with ten appointed by the president, and each of the 175 electoral districts sending two deputies. Candidates required approval from the ASU party secretariat, establishing a crucial gatekeeping function. In 1964, only 1,748 out of 3,570 nominated candidates were ultimately permitted to run, followed by intense competition, with an average of five candidates competing per district. As the party was never strongly rooted in society, elections reflected local power structures in rural districts, with family networks and local notables translating directly into seats in the National Assembly.[7]

2.2.1.0.4 Transition to Multiparty System (1976)

When Sadat assumed the presidency after Nasser's death in 1970, he initially maintained the ASU single party structure. Profound party reform only occurred after he consolidated power following the October War of 1973. In 1976, the ASU was reorganized into three competing platforms, and independent candidates were permitted to run for the first time, winning 14 percent of seats.[8] In 1977, permission to establish political parties was granted and all organizations officially transformed into parties.[9] The introduction of multiparty competition did not democratize the political system: the president's party continued to dominate, and only opposition parties that did not challenge the regime were tolerated (Weipert-Fenner, 2020).

6. The ASU's ideological foundation rested on the "national alliance of working forces," consisting of workers, peasants, intellectuals, and national capitalists — categories organized by occupation rather than income or wealth, cutting vertically across economic strata. In practice, "workers" were primarily state officials or public sector employees, and the broad definition of "farmers" meant that medium landholders could easily qualify for reserved seats.

7. Parliamentary legislative power was significantly curtailed relative to the 1923 constitution: decrees passed under Nasser had the force of law, and parliamentary debates focused primarily on social policy, infrastructure, agriculture, and local issues rather than foreign policy or national defense (Weipert-Fenner, 2020).

8. In December 1975, the ASU had been divided into four platforms (manabir) along major political lines: left, Nasserist, right, and center. In 1976, these were reorganized into three organizations (tanzimat), with the center organization — called Arab Socialist Egypt or the Egypt Party — bound to Sadat and absorbing the ASU's resources and legitimacy (Waterbury, 1983).

9. Sadat's Egypt Party was renamed the National Democratic Party (NDP) in 1978; the left formed the Nationalist Unionist Progressive Party (Tagammu`); and the right formed the Socialist Liberal Party (Ahrar). All newly founded parties were headed by former members of the ruling elite under Nasser and Sadat.

2.2.2 Land Reform in 1952–1961

The agrarian reform program launched by the Free Officers regime in September 1952 marked a defining policy decision for the new regime. Designed to dismantle the power of the landed elite and redistribute land to small farmers, the reform imposed ceilings on agricultural land ownership with extensive state control over redistribution and rural production.[10]

The first major reform law in September 1952 imposed a ceiling on private agricultural land ownership at 200 feddans (84 hectares) per individual. This was followed in 1953 by the complete confiscation of royal estates, signaling the regime's commitment to eliminating entrenched elite power. The land ceiling was progressively reduced over time to 100 feddans per family in 1961 and to 50 feddans in 1969, though the latter had limited redistribution impact compared to the first two waves.

Redistribution did not rely on market mechanisms, but on state control over land transfer and use.[11] Land expropriated from large estates exceeding the ceiling was retained by the Agrarian Reform Authority and redistributed to small farmers and tenants who used to cultivate the land in plots ranging from 2 to 5 feddans. However, beneficiaries faced restrictions; they could not resell their plots and full property rights were granted only upon completion of payments to the state over 30 to 40 years.

As documented in Moshrif (2025), the reform achieved substantial redistribution: the Agrarian Reform Authority transferred 15% of total cultivated land, reducing the agricultural land share of the top 1% by 30% relative to pre-1952 levels, and significantly expanding the number of small landowners holding under 5 feddans.[12] Yet the reform's reach was deliberately bounded. The landless and agricultural laborers were largely excluded — redistribution targeted tenants and farmers already cultivating the land, prioritizing productive continuity over broader agrarian equity. The regime's initial plan to organize unions for agricultural laborers was abandoned following a botched implementation (Abdel-Malek, 1968), leaving the rural poor at the bottom of the agrarian hierarchy untouched by the reform's direct benefits.

As part of the land reform program, the regime established new agrarian reform cooperatives to

10. Despite opposition from large landowners, including the prime minister of the last monarchical government, and negotiations to implement progressive land taxes instead, the agrarian reform passed.

11. With the exception for the first 5 years, where the state allowed landowners with estates exceeding the threshold to sell their land in plots not exceeding 10 feddans.

12. Several related reforms took place in parallel with the land reform. First, the regime targeted Islamic endowments (waqf) with legislation in 1957 and 1962 that brought large properties of endowed land under state control for redistribution.

support redistribution bene ciaries, replacing the economic functions of the old landed elite by providing access to fertilizers, seeds, subsidized credit, mechanization, and technical assistance (Harik, 1974). Membership was made compulsory for all land reform bene ciaries from 1954, and extended in 1956 to all farmers regardless of whether they had received redistributed land — transforming cooperatives into key local institutions through which the state managed rural production, mobilized the rural population, and extended its reach into the countryside.

The land reform was accompanied by a set of complementary policies that reshaped the rural political economy. The agrarian reform legislation introduced rent controls and regulation of tenancy contracts, protecting tenants from arbitrary eviction and rent increases, though implementation was gradual and enforcement remained incomplete, particularly in areas with weaker state capacity (Abdel-Malek, 1968). Beyond the agrarian sphere, the regime nationalized private capital in 1960–1961, dismantling the economic base of the urban bourgeoisie alongside the landed elite. The state also dramatically expanded public primary education from 1951 onwards, extending access to schooling in rural areas that had long been underserved. Together, these policies formed a broader redistributive program that simultaneously attacked elite economic privilege, extended state presence into the countryside, and expanded access to public goods for the rural population. We account for these parallel reforms in our empirical analysis.

2.3 Conceptual Framework

We develop a simple analytical framework to guide the empirical analysis. The framework starts from a standard premise: in agrarian economies, land ownership is the primary source of political power. Landed wealth sustains the patron-client networks, tenancy relations, and nancial capacity that allow large landowners to dominate the legislature and keep turnover low (Ziblatt, 2008; Montalbo, 2023; Dal Bó et al., 2009; Querubin, 2016; Alesina et al., 2020).

We study how turnover is affected when a new regime expropriates the landed elite that dominated the preceding legislature. Consider two districts with the same total cultivated land and the same medium-landholder land share, differing only in the share of land held by large landowners above the expropriation ceiling. The higher large-landowner share in one district comes at the expense of smallholders, since large estates were historically accumulated by absorbing small plots, but this is politically inconsequential because smallholders lack the resources to contest elections. In the high-redistribution district, a few landed-elite families hold a large share of land above the ceiling, monopolizing the parliamentary seat across cycles; medium-landholder families below the ceiling hold enough land to sustain local in uence but cannot

overcome elite dominance. In the low-redistribution district, the landed elite are weaker or absent, and medium-landholder families compete on roughly equal footing in land. No single family holds a decisive advantage, so challengers can displace incumbents and families rotate regularly through of ce.

A natural implication is that expropriation should break the landed elite's hold on the seat: if redistribution destroys the material basis of their dominance, their hold on legislative seats should dissolve and incumbents should be exposed to a higher risk of displacement, producing higher turnover or incumbent displacement. In the high-redistribution district, the constraint that suppressed competition is gone, and medium-landholder families can now compete for the seat — much as they already were in low-redistribution districts. Turnover converges upward: the high-redistribution district, freed from the landed elite's monopolization, reaches turnover levels similar to those already prevailing in the low-redistribution district.

The incumbent displacement mechanism explains why turnover surges in the high-redistribution district in the rst post-reform cycle. But why does the effect persist across subsequent cycles, long after the landed elite has been removed? We propose a second distinct mechanism of elite truncation and leveling. Expropriation truncates the upper tail of the local landholding hierarchy — removing the landed-elite families that towered above the rest — without acting directly on the medium-landholder families below the ceiling. Before the reform, these families were subordinate to the landed elite; afterward, no single family retains a decisive advantage in land. In any given post-reform cycle, the current seat-holder's incumbency advantage is real but modest: it is no longer reinforced by a large gap in land. Challengers of comparable landholding can overcome it. Seats therefore change hands frequently, and no family can sustain a long run of consecutive victories.

The truncation is durable because redistributed land does not reconcentrate, and two forces reinforce this persistence. First, no remaining actor can rebuild the dominant patron-client networks that the landed elite once sustained, because the material foundation for such networks — vast estates requiring large numbers of tenants and laborers — no longer exists. Second, the regime has an interest in preventing land re-consolidation in precisely those districts where pre-reform landed-elite power was most concentrated; allowing any actor to rebuild a local monopoly would recreate the threat the reform was designed to eliminate (Svolik, 2012).

This implies that land redistribution does not necessarily result in the political empowerment of the masses. It opens political competition from above — by removing the landed elite that

blocked medium landholders from competing — but not from below — by granting political access to small landholders. Redistributing small plots to landless laborers does not generate the social capital that winning elections demands — it changes who owns land, not who commands the local networks and resources that translate into legislative seats.

Figure 2.1 illustrates the mechanism. Both panels show the distribution of land by landholding size, with a reform ceiling at $\bar{a}_t$. The share of land held by medium landholders is the same in both districts, but they differ in the upper and lower tails. In the high-redistribution district (left panel), the pre-reform distribution has a fat upper tail: a small number of families hold vast estates well above the ceiling, monopolizing legislative seats. Expropriation truncates this tail (red shaded area) and redistributes the land as small plots to tenants and laborers (green shaded area in the lower tail). In the low-redistribution district (right panel), a thinner upper tail means less expropriation and a smaller redistribution. After reform, the two districts look the same below the ceiling — the leveling is complete.

We then study who is likely to replace the displaced elites in the post-reform electoral cycles. The answer is an empirical question. Turnover in any cycle decomposes into new entrants — those with no prior parliamentary presence — and returnees — those with prior but non-consecutive service. The relative shares depend not only on the land share of large landowners but also on the stock of families with prior political experience, which is a historical initial condition shaped by the openness of pre- and post-reform parliamentary politics. So, the positive effect of land redistribution on cycle-to-cycle turnover may be driven by new entrants, returnees, or both.

Finally, the framework predicts heterogeneity in the effect of land redistribution by pre-reform political and economic structure. Effects on turnover are larger where (a) a small number of families monopolized pre-reform representation, because there is more incumbency to disrupt and more hierarchy to truncate, and (b) a denser stock of medium landholders exists below the expropriation threshold, because they constitute the supply of competitive actors whose symmetry drives sustained circulation.

To summarize, the empirical analysis tests the following predictions: (P1) pre-reform turnover is lower in high-redistribution districts; (P2) post-reform turnover in high-redistribution districts converges toward the levels prevailing in low-redistribution districts, and the convergence persists across successive post-reform cycles; (P3) the effect on turnover is larger in areas with greater political concentration before the reform; (P4) the effect on turnover is larger in ar-

eas with greater land share of medium landholders before the reform. We further examine the composition of the differential turnover into new entrants and returnees, which is an empirical question.

2.4 Data

The empirical analysis is based on two novel datasets that we constructed from primary sources. The rst dataset covers the universe of Egyptian members of parliament (MPs) from 1936 to 1976, which enables us to observe changes in cycle-to-cycle turnover, both at the MP and family level, before and after the 1952–1961 land reform. The second data set is the proportion of land that was redistributed between 1952 and 1961. We merge the two datasets at the district level according to the administrative boundaries of the 1960 population census.

2.4.1 Political Outcomes

2.4.1.0.1 Data Source

We constructed a dataset at the level of the MP, chamber, and parliamentary cycle that spans the full universe of Egyptian parliamentarians from Muhammad Ali's rst assembly (1824–1837) through the 2016–2020 cycle. The rst part of the dataset from 1824 to 1947 is based on History of Parliamentary Life in Egypt since the Era of Muhammad Ali Pasha, compiled by Subhi (1947). To extend coverage after 1947, we complemented this source with primary lists of MPs from the Egyptian Parliamentary Library. For the purpose of this article, we restrict the empirical analysis to the 1936–1976 window, covering roughly two decades before and after the land reform. The empirical window starts in 1936–1938 — the rst parliamentary cycle held after a series of dissolutions and the abrogation of the 1923 constitution by the 1930 constitution, which was itself rescinded and the 1923 constitution restored in 1935.[13]

The empirical sample includes ve parliamentary cycles before 1952 and ve cycles afterward.[14] During the period from 1936 to 1952, Egypt was ruled by a constitutional monarchy under Farouk I, where — unlike parliamentary systems — the monarch had substantial power vis-à-vis the parliament. The parliament was bicameral with an upper house (Senate, Majlis al-Shuyukh) and a lower house (House of Representatives, Majlis al-Nuwwab). The 1956–1958

13. During this turbulent decade, King Fouad I repeatedly clashed with the dominant Wafd party, dissolving parliament and suspending constitutional rule. The 1923 constitution was suspended by King Fouad I and replaced by the 1930 autocratic constitution, only to be restored in 1935 following student protests backed by al-Wafd. The 1936–1938 cycle thus marks the rst return to a stable constitutional baseline before the 1952 military coup.

14. The dates of cycles are: 1936–1938, 1938–1942, 1942–1944, 1945–1949, 1950–1952, 1956–1958, 1960–1961, 1964–1968, 1969–1971, and 1971–1976.

cycle was the first cycle after the 1952 military coup, the abolition of the monarchy in 1953, and the promulgation of the 1956 constitution. During the period from 1956 to 1976, Egypt was a republic ruled by a president from a military background (Nasser in 1956–1970 and Sadat in 1970–1981) who enjoyed substantial power. We stop the empirical analysis at the 1971–1976 cycle because it is the last cycle held before the reintroduction of the party system in the form of parliamentary platforms (manabir) under Sadat, which could alter the institutional framework of parliamentary competition. We confine the dataset in the 1936–1952 period to the lower house, because (a) the upper house was abolished after 1952 as the parliament became unicameral, and (b) the upper house had longer electoral cycles than the lower house during this period, making it difficult to compare cyclical turnover and entry of MPs in the upper house before and after 1952.[15]

Our dataset is at the MP-cycle level. It contains a wide range of variables, including the full name of MP, date of entry and exit of MP into and from parliament, and constituency at the province, district, or village level.[16] Based on this information, we manually matched each MP across parliamentary cycles using the MP's full name, to create a unique MP identifier.[17] We then extracted the family name (last name) from each MP's full name to construct a unique MP family identifier.[18]

The original dataset assigns MPs geographically to constituencies at the province, district, or village levels. In the data entry phase, we identified each constituency using the list of geographic units from the closest decennial population census.[19] For the purpose of this article, we localized MPs at the district level, which is the level at which parliamentary constituencies were defined throughout most of our period. To do so, we first harmonized the geographic assignment of MPs who appeared in multiple cycles by assigning the earliest and most detailed localization to all other mandates of the MP. We then harmonized the geographic assignment of every MP to be at the district level according to the 1960 population census administra-

15. There is only one electoral cycle for the upper house in 1936–1952.

16. Additional variables exist in the dataset but are not used in the present analysis, including occupation (mostly missing from 1956 to 1976), honorific title (e.g., pasha, bey, effendi; abolished after 1952), executive position(s) held in parliament, if any (e.g., president of parliament), whether the MP completed his mandate, and, if not, the reason for not completing the mandate (e.g., death, illness, resignation, promotion to a governmental position, assassination, or nullification of election results).

17. In Egypt, the legal full name consists of first name followed by father's first name, paternal grandfather's first name, etc — that is, S son of F son of G.

18. To mitigate the issue of common family names (e.g., Mohamed, Ahmed, Moustafa, Hassan), we constructed a list of common family names based on our knowledge of the Egyptian context. We then defined the family name for names that appear in this list as the last two names of the MP. Furthermore, if there are two MPs with the same last two names, yet they belong to two different districts, we treat them as members of different families. See Appendix B.0.1 for further details.

19. Throughout our period, there were five population censuses: 1937, 1947, 1960, 1976, and 1986. We used the administrative codes created by CEDEJ (2003).

tive boundaries of districts.[20] Throughout the empirical analysis, we restrict the sample to MPs from 103 rural districts across 18 provinces,[21] since the land reform was primarily implemented in rural areas. This excludes MPs from urban provinces (Cairo, Alexandria, Port Said, Suez), border provinces in Sinai and the eastern and western deserts, and urban districts within rural provinces — namely the provincial capitals and major towns (e.g., al-Zaqaziq, al-Mansoura, Kafr al-Sheikh, Tanta, Asyut, Qena, Aswan). The resulting sample contains 2,784 MP–cycle observations, corresponding to 1,776 unique MPs from 984 unique families. The descriptive section, by contrast, presents national-level trends in political outcomes for all lower-house MPs from 1936 to 1976, including those from urban districts.

2.4.1.0.2 Variable Construction

Our main political outcome is turnover: equals one if an MP in a given cycle did not hold a seat in the immediately preceding cycle.[22] It measures how frequently seats change hands across parliamentary cycles. A high turnover rate indicates that the incumbency is weak and that the set of sitting MPs is regularly renewed; a low turnover rate indicates that the same individuals retain their seats from one cycle to the next, consistent with strong incumbent advantage. To measure our political outcomes, we draw on the full parliamentary record from 1824 to 1976, pooling the upper and lower houses during the bicameral periods.[23] This ensures that turnover in the first empirical cycle (1936–1938) is measured against the correct preceding parliament, and that MPs who served in any prior cycle — including earlier decades or the upper house — are not misclassified as new entrants.

However, as a stand-alone measure, turnover is silent on the deeper question of whether seat changes reflect genuine political opening or merely reshuffling within an established pool of contenders. To address this, we decompose turnover into two mutually exclusive components. The first is new entry: incoming MPs who have never held a parliamentary seat in any prior cycle. The second is returnees: incoming MPs who were absent last cycle but had served in at least one earlier cycle. This decomposition is the interpretive backbone of our analysis. Turnover driven by new entry signals genuine political opening, with seats owing to individuals previously outside the parliamentary arena. Turnover driven by returnees signals MP

20. Administrative units in each decennial census were originally matched by CEDEJ (2003) with the 1996 population census administrative codes of districts. We used the 1996 codes to match each decennial census to the corresponding codes in 1960.

21. Damietta, al-Daqahlia, Kafr al-Shaykh, al-Gharbia, al-Beheira, al-Menoufyia, al-Sharqia, al-Qalyoubia, al-Ismailia, al-Giza, al-Fayoum, Beni Suef, al-Menia, Assiut, Suhag, Qena, Luxor, and Aswan.

22. Because we observe winners rather than candidates, our measures capture the vulnerability of incumbents to displacement. A vast body of literature defines incumbency advantage and persistence of political dynasties based on winners. See, for example, Dal Bó et al. (2009) and Querubin (2016) on political dynasties.

23. The bicameral periods are 1883–1913 and 1924–1952.

reshuf ing within an established pool, with the same set of actors rotating in and out of of ce.

We further extend this decomposition from the individual MP to the family level. This extension is analytically motivated: an MP can appear individually new while belonging to a family with parliamentary roots, generating turnover at the individual level with no genuine political opening at the dynastic level. The family-level measures therefore sharpen our interpretation of the MP-level results: when an MP is individually new but his family has prior parliamentary representation, what looks like political opening at the individual level is in fact dynastic succession at the family level. The gap between the two measures quanti es this share. Family-level new entry thus captures genuine political opening: MPs whose families have no prior parliamentary presence, as distinct from new individual faces drawn from established parliamentary families.

These conceptual distinctions yield six measures. The rst three are de ned at the individual level. For each MP serving in a given cycle t, measure (1), MP cycle-to-cycle turnover, is equal to one if the MP himself was absent in cycle t 1. Measure (2), new MP entry, is equal to one if the MP has never served in parliament in any cycle prior to t. Measure (3), MP returnee, is equal to one if the MP was absent in cycle t 1 but had served in at least one cycle prior to t 1. Together, measures (2) and (3) partition measure (1): every MP who was absent in cycle t 1 is either a new entrant or a returnee.

The second three measures replicate this structure at the family level. Measure (4), family cycle-to-cycle turnover, is equal to one if neither the MP nor any member of his family held a seat in cycle t 1. Measure (5), new family entry, is equal to one if no member of his family has ever held a parliamentary seat in any cycle prior to t. Measure (6), family returnee, is equal to one if his family was absent in cycle t 1 but had held a seat in at least one cycle prior to t 1. As at the individual level, measures (5) and (6) partition measure (4): every MP whose family was absent in cycle t 1 is either from a family entering parliament for the rst time or from a family that is returning. Because measures (2) and (3) partition measure (1), and measures (5) and (6) partition measure (4), we estimate the effects on turnover and new entry directly; the returnee effects follow by subtraction and we relegate them to the appendix.

2.4.2 Land Reform Intensity

Our main explanatory variable is land reform intensity in the MP's constituency (district), which captures the extent to which the 1952–1961 land reform reshaped the land ownership distribution. To construct this measure, we draw on the 1961 Agricultural Census (Ministry of Agriculture, 1961), which reports the distribution of landholdings and — for the rst time in the

Egyptian agricultural censuses — the amount of land held by the Agrarian Reform Authority at the district level in 1961. We de ne land reform intensity as the share of land held by the Agrarian Reform Authority in 1961 out of total cultivated land in the district. We merge this measure with the MP-cycle dataset at the district level using the 1960 census boundaries.

Operationally, the 1952–1961 land reform expropriated land above a legal ceiling — initially 200 feddans per individual landowner in 1952, lowered to 100 feddans in 1961 — from large landowners, who were compensated in government bonds. The expropriated land was then redistributed in small parcels (typically 2–5 feddans) to landless and smallholder peasants, who were required to join a village land reform cooperative as a condition of receiving land (see Section 2.2.2). Our measure should therefore be interpreted as the intensity of a policy bundle that combined land transfer with cooperative membership, rather than land transfer alone.

Two measurement concerns arise from using the amount of land held by the Agrarian Reform Authority in 1961 as a proxy for the total redistribution that took place between 1952 and 1961. First, the measure may understate actual redistribution: land that was expropriated and subsequently transferred to peasant bene ciaries before 1961 is no longer recorded as held by the Agrarian Reform Authority in that year, so earlier waves of redistribution are partially invisible. Second, the measure may overstate redistribution: some of the land recorded as held by the Agrarian Reform Authority in 1961 had been expropriated from large landowners but not yet allocated to small landholders. As a robustness check (see Section 2.8), we re-estimate our speci cations using an alternative measure: the reduction between 1950 and 1961 in the share of cultivated land held in large estates (at least 100 feddans). However, this alternative measure has its own bias since the share of large estates may have declined for reasons unrelated to state expropriation — notably private transactions (sales, gifts, partitions) undertaken by large landowners to evade the ceiling. Because this bias is uniformly directional (toward overstating state-led redistribution), while the biases of our preferred measure push in opposite directions and may partially offset each other, we retain the 1961 gure as our main measure.

The distribution of land reform intensity across districts is strongly right-skewed (Figure B.1 in Appendix B.0.2): the median district experienced redistribution of only 2.3% of its cultivated land, and districts in the bottom quartile fall below 0.7%. In contrast, districts in the top quartile range from 6.8% to 33%, with a mean of 4.4% across the full sample. Spatially (Figure 2.2), the districts in the two highest quartiles cluster in the northern and northeastern Delta and in parts of Middle Egypt, with several isolated high-intensity districts in Upper Egypt. Districts in the lowest two quartiles are concentrated in the southwestern Delta and along much of the

southern Nile Valley. This pattern reflects the geography of pre-1952 land concentration: expropriation could only occur where large estates above the legal ceiling existed, and the Delta — where late nineteenth- and early twentieth-century land reclamation had produced a particularly concentrated estate structure — accordingly bore the brunt of the reform.

Table 2.1 compares MPs across districts at the extremes of the treatment distribution — the top quartile (Q4, high-redistribution) and the bottom quartile (Q1, low-redistribution) — on political outcomes in the pooled pre-reform sample from 1936 to 1952, and on a set of pre-reform characteristics measured in 1950–1951.[24] The two groups are broadly similar on district-level controls in 1950–1951: cotton and wheat yields, the share of agricultural area held under rental tenancy, and the density of kuttab schools that were transformed into primary schools after 1952[25] differ by less than two percentage points across Q4 and Q1.

On pre-reform political outcomes, however, the two groups diverge in a systematic way. Consistent with the first prediction of the conceptual framework (P1) (Section 2.3), Q4 districts exhibit significantly lower cycle-to-cycle MP turnover than Q1 districts (0.82 vs. 0.88). This gap is driven predominantly by the difference in the share of returnees rather than by new entry: the share of incoming MPs who had never previously served in parliament is essentially identical across the two groups, while the share of returning MPs — individuals who had served in earlier cycles and returned after an absence — is lower in Q4 (0.39 vs. 0.44). The same pattern holds at the family level, where the Q4–Q1 gap in family turnover is negative but not statistically significant. The family-level gap is driven by a lower proportion of family returnees (significant at the 10% level). High-redistribution districts entered the reform period with more entrenched incumbency and less within-elite rotation, while the rate at which genuinely new actors entered parliament was indistinguishable across the two groups. This is consistent with P1: the landed elite's monopolization in high-redistribution districts suppressed the circulation of medium-landholder families, depressing the returnee share while leaving the entry of genuinely new actors unaffected.

24. We show the summary statistics of political outcomes for Q1 and Q4 districts in 1951–1952, the last cycle before the reform in Appendix Table B.1, and for above and below median land reform intensity in 1936–1952 in Appendix Table B.2.

25. Kuttab schools are traditional Qur'anic elementary schools that served as the main form of rural education in pre-1952 Egypt. They were transformed into primary schools in 1953 leading to a substantial rise in mass public primary education (Saleh, 2016). The density is the share of Kuttabs out of all schools, modern and Qur'anic.

2.5 National-Level Trends

Figure 2.3 traces cycle-to-cycle turnover and new entry from 1936 to 1976 at both the MP and family levels. Before 1952, MP turnover was consistently high at 85–90%, but new entry was more modest at 30–50%, with the gap filled by returnees rotating in and out of office. At the family level, turnover hovered around 50–65% while new family entry remained around 15%, leaving the bulk of turnover accounted for by returning families rather than genuinely new ones. High turnover did not reflect political opening: it reflected a musical-chairs logic in which a narrow pool of established MPs rotated through office. The 1950–1952 cycle was a partial exception: the return of the Wafd party brought MP new entry to 60% and family new entry to 20%, reducing the proportion of returnees, though the pattern remained intact.

The 1952 coup marked a sharp break: turnover no longer reflected the recycling of established politicians, but rather the entry of genuinely new actors. In 1956–1958, the first cycle under the new military regime, MP turnover reached 96%, driven almost entirely by genuine new entry at 92% — a near-complete replacement. At the family level, turnover rose to 70% (from 60%) and new entry surged to 45% (from 20%), but 55% of MPs still came from families with pre-1952 parliamentary presence — 28% from families that had served continuously and 27% from families returning after an absence. Turnover then dipped sharply in 1960–1961 (MP turnover 34%, family turnover 25%), an exceptional cycle in which the formation of the United Arab Republic with Syria led to a joint legislature whose Egyptian contingent was drawn largely from the outgoing 1956–1958 parliament.

From 1964 onward, the composition of turnover changed fundamentally in comparison to the pre-1952 era. At the MP level, turnover settled at 70–80%, lower than the pre-1952 levels, and new entry tracked it closely at 60–75%, far higher than before 1952: returnees largely disappeared. At the family level, turnover was about 55–57%, slightly below the pre-1952 levels, and new entry at 28–36% remained well above pre-1952 levels, leaving a narrowed but persistent gap of 20–27 percentage points covered by family returnees. The post-1952 regime opened parliament to new actors nationally, but dynastic continuity — both the persistence of pre-1952 dynasties and the emergence of new post-1952 dynasties — was not eliminated.

These national trends document the aggregate transformation of parliamentary representation after 1952, but they cannot tell us whether land redistribution itself shaped political turnover at the local level. We now turn to this question.

2.6 Empirical Specification

To estimate the effects of the land reform on cycle-to-cycle turnover, new entry, and returnees among MPs and MP-families, we adopt an event-study framework that compares the evolution of political outcomes of MPs before and after the 1952–1961 land reform across districts with higher or lower land redistribution intensity. We restrict our empirical analysis to MPs in rural districts, where land redistribution was concentrated, from 1936 to 1976. Our baseline specification is as follows:

$$Y_{mdc} = \sum_{\substack{t=1936–1938 \\ t6=1950–1952}}^{1971–1976} \beta_t \, (D_t \times \text{LandReform}_d) + \gamma_d + \delta_c + \varepsilon_{mdc} \qquad (2.1)$$

where Y_{mdc} denotes the political outcome of MP m in district d during cycle c. The variable LandReform_d captures the intensity of land redistribution in district d, measured as the proportion of cultivated land redistributed under the 1952–1961 reform (ranging from 0 to 0.33 across districts in our sample). D_t are parliamentary cycle dummy variables, with the 1950–1952 cycle — the last cycle before the land reform — omitted as the reference cycle. We include district fixed effects (γ_d) to control for time-invariant characteristics of districts that may affect political turnover, and cycle fixed effects (δ_c) to account for national-level shocks to political turnover common across all districts, including the regime's intervention in candidate selection, the abolition of political parties, and the successive reorganizations of the single-party system. Standard errors are clustered at the district level.

The coefficients β_t are the main parameters of interest. Each β_t measures the differential change in the outcome between districts with higher and lower redistribution intensity in cycle t, relative to the 1950–1952 baseline. A positive $\hat{\beta}_t$ indicates that the outcome rose more (or fell less) in high-redistribution districts than in low-redistribution districts, relative to the pre-reform gap. A negative $\hat{\beta}_t$ indicates the reverse.

Our specification in equation (2.1) is a difference-in-differences model with universal timing and continuous treatment. Because only four rural districts in our sample experienced no redistribution, there are effectively no never-treated districts; identification therefore relies on continuous variation in redistribution intensity across treated districts.[26] The validity of this approach requires a set of assumptions that are stronger than those in the standard binary-treatment

26. This precludes a binary treatment specification and means we cannot use never-treated districts as a comparison group.

case (Callaway et al., 2024). The first is a strong parallel-trends assumption: the evolution of outcomes in the absence of the reform should not vary with redistribution intensity — that is, parallel trends must hold at every level of treatment dose, not merely between a treated and an untreated group. The second is the no-anticipation assumption: political outcomes in a district in a given cycle should not be affected by its future redistribution intensity. Third, there should be no confounding factors that co-occurred with the land reform and differentially affected political outcomes across districts. Under these assumptions, β_1 identifies a causal dose-response relationship. Interpreting it as the slope of that relationship — how much the outcome changes per unit increase in redistribution intensity — further requires that the causal effect is approximately linear in the dose.

We evaluate these assumptions through a combination of evidence. The pre-reform coefficients in equation (2.1) provide a first piece of evidence: if $\delta_t \approx 0$ for all pre-reform cycles from 1936 to 1949, this is consistent with — though not a direct test of — the strong parallel-trends assumption, since it establishes that the linear dose-response relationship was flat before the reform. These coefficients also speak to no-anticipation: if the coefficients on the cycles immediately preceding 1950–1952 are indistinguishable from zero, future redistribution intensity was not already affecting political outcomes.

However, because the strong form of the assumption requires parallel trends at every level of treatment intensity, we supplement the pre-trends with additional checks. In Section 2.8, we test whether the dose-response relationship is approximately linear using a binned scatter regression approach, and we replace redistribution intensity with quartile indicators to relax any functional form assumption. Finally, we address three concurrent policies that may confound our estimates: the introduction of rent controls, the expansion of mass education after 1952, and the Farmer/Worker parliamentary quota introduced in 1964. We also control for cotton and wheat yield in 1950 to account for the variation in export- versus subsistence-oriented agriculture across districts.

A related question concerns treatment timing. The land reform was announced in September 1952 with an initial ceiling of 200 feddans, reduced to 100 feddans in 1961, with actual implementation extending through the 1950s and 1960s (Section 2.2.2). We treat 1956–1958 as the first post-reform cycle because expropriation began immediately after the 1952 announcement, well before this parliament was constituted. Our treatment variable — the share of land held by the Agrarian Reform Authority in 1961 — captures the cumulative result of this process and may over- or understate redistribution at any given point before 1961, as discussed in

Section 2.4. Crucially, however, the cross-district variation in redistribution intensity re ects the underlying geography of pre-reform land concentration: districts where large estates were most prevalent before the reform were the same districts that experienced the most redistribution. This ranking was effectively determined at the moment the reform was announced, even though full implementation took years. The political effects of the reform — the displacement of the landed elite and the opening of competition among medium landholders — would have begun as soon as expropriation started in these districts, regardless of whether redistribution to smallholders was complete.

2.7 Findings

The main effects of the land reform on cycle-to-cycle turnover at both the MP and family level are shown in Figure 2.4. We decompose these effects into new entrants and returnees in Figure 2.5 and Appendix Figure B.2, respectively.[27] The main nding is that cycle-to-cycle turnover in high-redistribution districts converged toward that in low-redistribution districts after 1952, and this convergence persisted through 1976, consistent with the conceptual framework (P2). This convergence was driven by returnees rather than new entrants: the land reform had a positive effect on the proportion of returnees but no effect on entry.

The pre-reform coef cients in Figure 2.4 are statistically insigni cant in all pre-reform cycles at both the MP and family levels, supporting the parallel-trends and no-anticipation assumptions. After 1952, land reform had a positive and statistically signi cant effect on MP turnover (Panel 2.4a) at the 5% level in 1956–1958, 1960–1961, 1969–1971, and 1971–1976. To interpret magnitudes, we compare districts at the third quartile (Q_3 6:7%) to the rst quartile (Q_1 0:6%) of redistribution intensity. The inter-quartile effect is 4.8 percentage points in 1956–1958, rising to about 7 percentage points in 1960–1961 and roughly 10 percentage points in both 1969–1971 and 1971–1976. The pre-reform gap in MP turnover between high- and low-redistribution districts was 6 percentage points in the pooled 1936–1952 sample (Table 2.1) and 12 percentage points in 1950–1952, the reference cycle (Appendix Table B.1). By the late post-reform cycles, the estimated effects are large enough to close even the wider 1950–1952 gap. Importantly, the effect is not a one-time shock: it grows across successive cycles and stabilizes at its peak magnitude through the 1970s, consistent with the elite truncation and leveling mechanism proposed in the conceptual framework.

Family-level effects (Panel 2.4b) are weaker and more delayed, with positive and statistically

27. The results are shown in Table B.3 in Appendix B.0.3.

signi cant effects at the 5% level in 1969–1971 (11.5 percentage points) and at the 10% level in 1971–1976 (8 percentage points). The delay is consistent with dynastic political capital buffering families against displacement more effectively than individual incumbency advantage alone. These magnitudes nonetheless exceed the 6 percentage point pre-reform family-turnover gap in Table 2.1 and are comparable to the 11 percentage point gap in the 1950–1952 reference cycle (Appendix Table B.1), suggesting that the reform eventually closed the dynastic-incumbency gap as well, though more slowly than the individual one.[28]

The entry results in Figure 2.5 stand in sharp contrast. At both the MP and family levels, the post-reform coef cients are statistically insigni cant and close to zero, with the sole exception of a negative and signi cant effect on family entry in 1964–1968. The con dence intervals rule out large positive effects in all post-reform cycles. Since entry rates were already indistinguishable across high- and low-redistribution districts before the reform (Table 2.1), the null post-reform coef cients indicate that this parity persisted. Redistribution intensity did not differentially open political access at the district level. The substantial national-level rise in entry documented in Figure 2.3 did not vary with redistribution intensity: it was driven by the regime's centralized candidate-selection mechanism, which operated uniformly across districts and is absorbed by cycle xed effects.

By the accounting identity — turnover equals entry plus returnees — the null effect on entry implies that the turnover convergence is accounted for by returnees. The returnee event study is reported in Appendix Figure B.2. At the MP level, we document positive and statistically signi cant effects at the 5 or 10% levels across all post-reform cycles. At the family level, the coef cients are all positive and achieve statistical signi cance from 1964 onward. Nationally, MP returnees collapsed from roughly 44–52% before 1952 to 4% in 1956–1958; family returnees fell from 36–49% to 27% (Figure 2.3). Because high-redistribution districts had a lower share of returnees before the reform (Table 2.1), they experienced a smaller decline, generating the positive differential. This pattern has the same structural origin as the pre-reform gap: the landed elite's monopolization in high-redistribution districts had already suppressed returnee circulation before 1952, leaving less to collapse when the regime's centralized candidate selection eliminated the monarchy-era rotation system. At the same time, the leveling of the land distribution in high-redistribution districts generated a new form of circulation among

28. The negative effect on family entry in 1964–1968 coincides with the introduction of the farmer/worker quota, which reserved 50% of seats for candidates classi ed as farmers or workers. This institutional change restructured the competitive landscape in that cycle and may have temporarily compressed differential entry in high-redistribution districts. We examine the interaction of the quota system with land redistribution intensity in the post-quota cycles (1964–1976) in Section 2.8.

medium-landholder families, sustaining the positive returnee differential across subsequent cycles. We provide evidence in support of this interpretation in Section 2.9.

In sum, the main effect we identify is a persistent convergence in turnover between high- and low-redistribution districts, consistent with P2 and driven by the two mechanisms proposed in the conceptual framework: elite displacement in the earlier post-reform cycles and elite truncation and leveling in subsequent cycles. The inter-quartile effect reaches 5 to 10 percentage points at the MP level and up to 11.5 percentage points at the family level — magnitudes large enough to close the pre-reform gap and persistent across two decades. This convergence was not driven by differential entry — which was indistinguishable across district types both before and after the reform — but by convergence in the proportion of returnees. As the reform dismantled the material basis of the landed elite that had suppressed turnover in high-redistribution districts, competition among medium-landholder families was released, allowing turnover to converge toward the levels already prevailing in low-redistribution districts.

2.8 Robustness Checks

We conduct several robustness checks to validate our main findings and address potential concerns about identification, confounding policies, and measurement.

2.8.0.0.1 Linearity of the Effects

Figures B.3 and B.4 in Appendix B.0.4 present binned scatter plots testing the linearity of the relationship between land redistribution intensity and changes in political outcomes between 1950–1952 and 1956–1958, estimated using the binsreg package of Cattaneo et al. (2024) with four quantile-spaced bins (quartiles). Each panel plots the conditional mean of the outcome change within quartiles of redistribution intensity, along with a linear fit and uniform confidence bands. The p-value from a formal linearity test is reported in each panel. For five of the six outcomes, we fail to reject the null hypothesis of a linear relationship, supporting the functional form assumption of our baseline specification. The exception is new family entry, where the linearity test is rejected at the 5% level. However, this outcome is a null result — the reform does not affect family new entry — and the quartile robustness check (Figure B.8 in Appendix B.0.4) confirms that the null holds across all quartiles of redistribution intensity, ruling out that the rejection reflects a substantively meaningful nonlinearity.

2.8.0.0.2 Quartile Speci cation

To further address the assumption that our continuous treatment enters linearly into the baseline speci cation, we re-estimate the event study, replacing the continuous redistribution intensity measure with quartile indicators. Districts are assigned to quartiles based on their share of cultivated area redistributed by 1961, out of the total cultivated area. The rst quartile serves as the reference group in all regressions, so each coef cient captures the differential effect of higher redistribution intensity relative to the lowest-intensity (Q1) districts. This speci cation makes no functional form assumption about the dose-response relationship and directly addresses the rejection of linearity for new family entrants documented above.

Figures B.5 and B.6 in Appendix B.0.4 present the quartile results for cyclical turnover. The positive post-reform effects on MP turnover are concentrated in the upper quartiles and increase monotonically with redistribution intensity. Family turnover shows a similar pattern, though the Q3 effect is somewhat larger than Q4 in several cycles, suggesting that the competitive disruption is not strictly monotone at the family level. Figures B.7 and B.8 present the results for new entry. Coef cients are statistically insigni cant across all quartiles and all post-reform cycles, with one exception: the Q3 and Q4 coef cients for new family entrants are both signi cant in 1969–1971, the same cycle in which family turnover is strongest. This co-movement is consistent with competitive disruption at higher redistribution intensities opening limited space for new families in a single cycle, but the effect does not increase monotonically with intensity across quartiles and has no counterpart at the MP level. The overall pattern con rms the baseline ndings: turnover in high-redistribution districts converged toward low-redistribution districts, due to convergence in the proportion of returnees — the reform had no effect on entry — and this result is not an artifact of the linear functional form assumption.

2.8.0.0.3 Controls for Confounding Policies

The observed effects of the land reform on turnover may be driven by potential confounding pre-reform characteristics of districts or policies implemented during the same period as the land reform. First, high-redistribution districts may be characterized by export-oriented agriculture — cotton cultivation — as opposed to subsistence agriculture — wheat cultivation — and the differential trajectory of turnover may be a consequence of this export orientation. Second, rent controls on agricultural tenancies were introduced together with the 1952 agrarian reform and may have independently affected landowner-tenant power dynamics. Third, the post-1952 regime expanded public primary mass education in 1951–1953 by transforming traditional elementary schools (kuttabs) to modern primary schools that enabled students to access secondary

schools and universities. Fourth, the post-1952 regime introduced in 1962 a farmer/worker quota that reserved 50% of parliamentary seats in every constituency for MPs classi ed as farmers or workers, beginning with the 1964–1968 cycle.

To address the rst three potential confounders, we sequentially add controls to the baseline speci cation in equation (2.1). First, we add cotton and wheat yields to control for export- versus subsistence-oriented agriculture. Second, we control for the share of land area under rental contracts in 1950 to account for rent control policies. Third, we include the share of kuttab schools in 1951/1952 out of all schools as a proxy for the expansion of public mass education. These controls help isolate the direct political effects of the land reform from other concurrent economic and development-related policies.

Table B.4 in Appendix B.0.4 examines the robustness of the baseline turnover results to sequential addition of controls. Columns 1–4 show MP turnover, while columns 5–8 show family turnover. The positive post-reform effects remain statistically signi cant and generally strengthen slightly when adding cotton and wheat yields and rented land share. The magnitudes attenuate somewhat when controlling for the share of schools, though the key post-1952 coef cients remain statistically signi cant. The robustness to these agricultural and policy controls suggests the observed increase in political turnover re ects the land reform's direct effects rather than confounding policies. Table B.5 presents the same robustness checks for new entry outcomes. The results con rm that land reform did not increase entry of new MPs or families, with coef cients remaining statistically insigni cant across all speci cations and the negative effect on family new entry in 1964–1968 remaining robust to controls.

To address the fourth potential confounding policy — the farmer/worker quota (henceforth F/W) — we make two arguments. First, the quota was introduced in 1964, so it cannot account for the effects on turnover we document in 1956–1958 and 1960–1961. The independent effect of the land reform on political competition is established in these pre-quota cycles. Second, although the quota was national, its interaction with redistribution intensity is not absorbed by cycle xed effects: if high-redistribution districts have more medium-landholder families who qualify as farmers, the quota may differentially open a channel in those districts. To examine this possibility, we restrict the sample to 1964–1976, split MPs by F/W status, and estimate equation (2.1) separately for each sub-sample using 1964–1968 as the reference cycle.

Table 2.2 shows that, within the post-quota period, the association between redistribution intensity and political outcomes is concentrated entirely among F/W MPs. F/W MPs in higher-

redistribution districts had signi cantly higher turnover in 1969–1971 and 1971–1976 relative to 1964–1968, with comparable patterns at the family level. Non-F/W MPs show no systematic variation with redistribution intensity in any outcome. Notably, F/W MPs also show positive and signi cant differential entry at both the MP and family levels, indicating that the quota opened a channel through which new actors entered parliament in high-redistribution districts — an effect not visible in the baseline speci cation, which pools F/W and non-F/W MPs. The broad de nition of "farmer" in the quota system — encompassing anyone owning or renting 10–25 feddans whose primary livelihood derived from agriculture (Waterbury, 1983) — plausibly accommodated medium-landholder families that had retained their holdings after the reform. The quota thus provided an institutional channel through which the competitive dynamics created by the reform operated after 1964, captured by the same medium-landholder stratum.

2.8.0.0.4 Alternative Treatment Measure

Our main measure — the proportion of land retained by the Agrarian Reform Authority in 1961 — may overstate or understate land redistribution between 1952 and 1961 (Section 2.4.2). To address this limitation, we use the reduction in the proportion of large estates (above 100 feddans) between 1950 and 1961 out of total cultivated land in 1950 from the Agricultural Censuses of 1950 and 1961. We choose 100 feddans since this is the landholding ceiling imposed by the 1961 land reform.

Figures B.9 and B.10 in Appendix B.0.4 show the results using this alternative treatment de nition. While the coef cient estimates display similar patterns to our baseline results, the standard errors are larger, likely re ecting the fact that this measure captures broader changes in the share of large estates, including private transactions (sales, gifts, partitions) undertaken to evade the ceiling, and therefore overstates state-led redistribution. The consistency of coef cient signs across both treatment measures strengthens our con dence in the main ndings.

2.9 Mechanisms

Having shown that land redistribution persistently disrupted incumbent advantage in high-redistribution districts without affecting entry, we now examine whether the effects vary with pre-reform political and economic structure, as predicted by the conceptual framework (P3 and P4). These predictions map onto the two components of the truncation and leveling mechanism: political concentration captures how much landed-elite dominance there was to truncate, while the medium-landholder land share captures how thick the competitive tier was for leveling to sustain rotation.

2.9.0.1 Baseline Political Concentration in 1924–1952

We first examine whether the political effects of the land reform varied by the pre-1952 political structure. We measure political concentration at the district level by the inverse of the number of families per parliamentary seat in each district during 1924–1952. We then split our sample into high-concentration districts where political concentration is above the median — dominated by a small set of parliamentary families — and low-concentration districts whose political concentration is below the median — where representation was more dispersed. We estimate equation (2.1) separately for each sub-sample. Table 2.3 reports the results.

The turnover effects of land reform are predominantly observed in highly politically concentrated districts prior to the reform. Moving from low to high redistribution intensity raised MP turnover by 11–13 percentage points across multiple post-reform cycles in high-concentration districts (Column 2, significant in 1960–1961, 1969–1971, and 1971–1976), with no detectable effects in low-concentration districts (Column 1). Family-level turnover mirrors this pattern (Columns 3–4): significant effects appear in high-concentration districts in 1960–1961 and 1969–1971, with no corresponding effects in low-concentration districts. Entry remains null across both types of districts at both the MP and family levels, except in 1964–1968 where we find a negative and statistically significant effect (Columns 5–8).

This heterogeneity sharpens the interpretation of the main results. The land reform reduced the dominance of the landed elite specifically in districts where that dominance existed — the districts in which a small set of parliamentary families had monopolized representation under the monarchy. Once these families were displaced, the resulting leveling of political power translated into higher cyclical turnover which persisted through 1976. In low-concentration districts, where representation was already dispersed and competition over seats was more fluid, there was no landed-elite lock for the reform to break, and we observe no differential effect. The heterogeneity therefore identifies the mechanism: the political effects of the reform operated specifically through the disruption of oligarchic incumbency, not through some other district-level correlate of redistribution intensity. At the same time, the effect on entry remains null in both high- and low-concentration districts, even where oligarchic displacement was largest. What distinguished high-concentration, high-redistribution districts was not the entry of new actors but the persistent rotation of seats among established competitors, consistent with the leveling mechanism: once the landed elite's lock was broken, no single family could reconsolidate dominance.

2.9.0.2 Baseline Land Share of Medium Landholders in 1950

We next examine whether the effects varied by the baseline prevalence of medium landholders, de ned as districts above versus below the median share of land owned by families holding 20–50 feddans in 1950.[29] We estimate equation (2.1) separately for each subsample.

Table 2.4 reports the results. The turnover effects are observed primarily in districts with a high prevalence of medium landholders. Among high-medium land share districts, moving from a Q1 to Q3 district raised MP turnover by 10 percentage points in 1956–1958, rising to 17 percentage points in 1969–1971, with effects remaining signi cant across most post-1952 cycles (Column 2). Family-level turnover coef cients are even larger, peaking at 26 percentage points in 1969–1971 (Column 4), likely re ecting a lower baseline family turnover rate in these districts. Low-prevalence districts show no detectable effects in any cycle, with the sole exception of a modest effect on MP turnover in 1971–1976 (Column 1).

The entry results reveal how seats were lled. Family entry remains null across both types of districts in most post-1952 cycles (Columns 7–8). MP entry, however, shows a positive and signi cant effect in high-medium landholder districts in 1969–1971 (Column 6), with no corresponding rise in family entry. This divergence reveals intra-family succession: the new individuals entering parliament in these districts were not from genuinely new families, but different members of families already embedded in the political arena.

These results are consistent with medium landholders acting as the second stratum of rural society in Binder's sense (Binder, 1978): a stratum with enough resources to sustain political ambition, existing local networks, and social standing, but historically subordinated by the dominance of large landowners above them. The reform did not expropriate these families — their holdings fell below the ceiling — but it removed the stratum above them that had blocked their political ascent. The sustained turnover effects, combined with the null on differential family entry, indicate that seats rotated persistently among medium-landholder families, none of whom could reconsolidate the durable dominance that had characterized the pre-reform landed elite.

Taken together, the two heterogeneity results identify the structural conditions under which the reform produced its political effects. Political concentration captures how much landed-elite dominance there was to disrupt: where a small number of families had monopolized representation, the reform broke their lock and turnover surged. The medium-landholder land share

29. We follow Binder (1978) in de ning medium landowners as those owning 20–50 feddans. This range captures farms large enough to require hired labor, distinguishing medium landholders from smallholders who rely primarily on family labor. We calculate the medium land share using the 1950 Agricultural Census.

captures how thick the competitive tier was to sustain rotation: where this tier was dense, the approximate symmetry among families kept incumbency fragile across successive cycles. Together, the two results trace the reform's effect from the disruption of oligarchic control at the top to the sustained circulation among medium landholders below — consistent with the truncation and leveling mechanism proposed in the conceptual framework.

2.10 Conclusion

This paper asks how redistributive land reform reshapes political turnover in the legislature — whether it merely disrupts the incumbency advantage of the landed elite, or whether it also expands political access to new actors. The Egyptian case offers an interesting test: the 1952 reform was radical in scope, enacted by a revolutionary regime with no ties to the landed class, and Egypt maintained parliamentary elections both before and after the reform. Using a new dataset of the universe of Egyptian MPs from 1936 to 1976, matched at both the individual and family levels, we find that redistribution intensity persistently raised cyclical turnover in high-redistribution districts — by 5 to 10 percentage points at the MP level and up to 11.5 points at the family level, durable across two decades and large enough to close pre-reform gaps. Yet this convergence was not accompanied by differential entry of new political actors. New families did enter parliament after 1952 — the national rise in entry was substantial — but this rise did not vary with redistribution intensity. The convergence in turnover was instead driven by higher circulation: in high-redistribution districts, the leveling of the local hierarchy kept incumbency fragile, so MPs and families cycled through office more frequently, generating a persistently higher share of returnees. The reform thus redistributed political power within the rural elite — from the large landowners who had monopolized seats to the medium landholders beneath them — without expanding access to those outside this stratum.

The effects of the reform operated through two pre-reform structural conditions: a history of oligarchic political concentration, and a strong presence of medium landholders whose holdings fell just below the reform ceiling. Where either condition held, turnover effects were most pronounced. Where both were absent, the reform produced no detectable political effects. The reform dismantled the landed elite's incumbency advantage in the districts where that elite had been entrenched, and the resulting circulation was sustained by a thick tier of medium-landholder families whose approximate symmetry in resources kept incumbency fragile across successive cycles. These families were not expropriated, and they had the resources, networks, and local standing to compete once the landed elite's dominance was removed. But none of

them reconsolidated the durable dominance the landed elite had held. What distinguished high-redistribution districts was not the entry of outsiders but a higher rate of circulation: the leveling of the local hierarchy kept seats rotating among established competitors, generating a persistently higher share of returnees.

These findings matter for two debates. The first concerns whether redistributive reform produces political inclusion. The literature has largely assumed it does — Albertus (2015)'s framework identifies the conditions under which reform occurs, and the political function of reform in that framework is to weaken rival elites. Our results show that redistribution intensity disrupted oligarchic incumbency and opened political competition from above — enabling medium landholders, previously subordinated by the landed elite, to compete and rotate through office. But it did not open competition from below: the entry of new families into parliament was substantial after 1952, yet it was driven by the regime's centralized candidate selection and did not vary with redistribution intensity. The second debate concerns land inequality and political inclusion, where the foundational claim is that concentrated land blocks democratization. Our findings speak to the flip side: even radical redistribution that destroys local land concentration does not expand political access beyond the stratum immediately below the expropriated elite. The reform shifted power from the top of the rural hierarchy to the middle, but the bottom — smallholders and the landless who received redistributed plots — remained outside the political arena.

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Note: Distributions are illustrative, not estimated from data. The solid line shows the pre-reform distribution of land by landholding size; the dashed line shows the post-reform distribution. Red shading indicates the landed elite (LE)'s expropriated holdings above the ceiling $\bar{L}$. Green shading indicates land redistributed as small plots to previously landless farmers: tenants and laborers. The M zone marks the medium-landowning families below the expropriation threshold.

Figure 2.1 – Schematic Land Distribution Before and After Reform

Note: The map displays the spatial distribution of land redistribution intensity at the district level between 1952 and 1961, using 1960 administrative boundaries. The sample is restri
to 103 rural districts. Source: Ministry of Agriculture (1961).

Figure 2.2 – Land Redistribution Intensity by District, Egypt 1952–1961

	High Redistribution (Q4)		Low Redistribution (Q1)		Difference
Variable	Mean	SD	Mean	SD	High Low
MP Outcomes (1936–52)					
CC MP	0.818	0.387	0.877	0.329	-0.059
MP New Entry	0.428	0.496	0.441	0.497	-0.013
MP Returnee	0.390	0.489	0.436	0.496	-0.045
Family Outcomes (1936–52)					
CC Family	0.561	0.497	0.622	0.486	-0.061
Family New Entry	0.149	0.356	0.142	0.349	0.007
Family Returnee	0.413	0.493	0.480	0.500	-0.068
District Controls (1950–51)					
Cotton Yield (1950)	0.203	0.030	0.210	0.032	-0.008
Wheat Yield (1950)	0.777	0.169	0.790	0.116	-0.013
Share Area Rented (1950)	0.311	0.126	0.325	0.146	-0.014
Kuttab Schools (1951)	0.905	0.076	0.889	0.058	0.016
Observations	269		381		650

Notes: Summary statistics pooled across pre-reform parliamentary cycles (1936–1952, cycles 1–5), comparing districts in the top quartile (Q4, high redistribution) to districts in the bottom quartile (Q1, low redistribution) of eventual land redistribution intensity. Difference is Q4 minus Q1. * p<0.1, ** p<0.05, *** p<0.01.

Table 2.1 – Pre-Reform Balance (1936–1952): High vs. Low Land Redistribution Intensity (Q4 vs. Q1)

(a) MP Cycle-to-Cycle Turnover and New Entry Rates, 1936–1976

(b) MP-Family Cycle-to-Cycle Turnover and New Entry Rates, 1936–1976

Notes: Panel (a) plots two MP-level political outcomes over time. Cycle-to-cycle turnover (blue) is the share of MPs who did not serve in the immediately preceding parliamentary cy
New entry (yellow) is the share of MPs appearing in parliament for the rst time. Panel (b) plots the family-level equivalents. The sample from 1936 to 1952 includes all MPs in the lo
house.

Figure 2.3 – Cycle-to-Cycle Turnover and Entry Rates, 1936–1976

(a) MP Cycle-to-Cycle Turnover

(b) Family Cycle-to-Cycle Turnover

Note: Coef cients are the estimated $\hat{\eta}_t$ for each cycle from equation (2.1). The 95% con dence intervals are shown.

Figure 2.4 – Effect of Land Reform on Cycle-to-Cycle Turnover in Parliament

(a) New MP Entry

(b) New Family Entry

Note: Coefficients are the estimated $\hat{\eta}_t$ for each cycle from equation (2.1). The 95% confidence intervals are shown.

Figure 2.5 – Effect of Land Reform on Entry in Parliament

	Cycle-to-Cycle MP		Cycle-to-Cycle Family		New Entry MP		New Family Entry	
	(1) F/W	(2) Others	(3) F/W	(4) Others	(5) F/W	(6) Others	(7) F/W	(8) Others
LR×(1969–1971)	2.541	-0.147	2.463	0.323	2.508	-0.312	2.792	1.901
	(0.953)	(1.246)	(1.295)	(1.900)	(0.960)	(1.328)	(0.908)	(0.921)
LR×(1971–1976)	2.551	-0.117	0.816	0.686	2.536	0.146	1.527	2.686
	(0.893)	(1.279)	(1.378)	(1.820)	(0.920)	(1.563)	(1.033)	(0.916)
Mean(1964–68)	0.803	0.752	0.508	0.523	0.795	0.697	0.379	0.275
N	410	371	410	371	410	371	410	371
R-squared	0.298	0.280	0.273	0.316	0.314	0.235	0.252	0.321
Clusters	101	99	101	99	101	99	101	99
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dist FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Reference: Parliament cycle (1964–1968). Coef cients show land reform effects by MP type. F/W = Farmer/Worker quota holders; Others = Non-quota MPs. CC = Cycle-to-cycle turnover; F = Family; N = New Entry. All speci cations include district and cycle xed effects. Standard errors clustered at district level. * p<0.1, ** p<0.05, *** p<0.01

Table 2.2 – Effect of Farmer/Worker Quota on Political Outcomes

	CC MP		CC Family		MP Entry		Family Entry	
	(1) Low	(2) High	(3) Low	(4) High	(5) Low	(6) High	(7) Low	(8) High
LR×(1936–1938)	0.977	-0.262	2.058	0.236	0.068	-0.773	-0.413	-0.139
	(1.116)	(0.656)	(1.732)	(0.633)	(1.849)	(0.641)	(2.104)	(0.971)
LR×(1938–1942)	0.387	0.838	-0.146	0.749	-0.691	-0.292	-0.925	-0.662
	(0.898)	(0.617)	(1.258)	(0.626)	(1.445)	(0.612)	(1.034)	(0.674)
LR×(1942–1944)	0.052	0.545	-0.028	0.029	-0.952	0.355	-2.183	-0.194
	(0.866)	(0.915)	(1.360)	(1.015)	(1.709)	(0.934)	(1.431)	(0.867)
LR×(1945–1949)	0.437	0.635	0.768	-0.455	2.074	-0.499	-0.555	-0.663
	(0.805)	(0.657)	(1.996)	(0.798)	(1.449)	(0.857)	(1.870)	(0.645)
LR×(1956–1958)	0.591	0.795	1.523	0.199	-0.299	-0.074	-0.333	-0.954
	(0.851)	(0.515)	(1.293)	(0.738)	(1.185)	(0.486)	(1.603)	(0.975)
LR×(1960–1961)	-0.305	1.795	0.352	0.862	-0.903	0.808	-1.851	0.323
	(0.960)	(0.645)	(1.275)	(0.467)	(1.097)	(0.571)	(1.344)	(0.971)
LR×(1964–1968)	0.464	-0.373	0.460	-0.078	-0.119	-1.384	-3.045	-1.571
	(1.012)	(0.509)	(1.359)	(0.661)	(1.172)	(0.589)	(1.595)	(0.888)
LR×(1969–1971)	0.655	2.182	1.526	2.043	0.023	0.832	-0.473	0.609
	(1.327)	(0.709)	(2.255)	(0.849)	(1.617)	(0.952)	(2.252)	(0.791)
LR×(1971–1976)	0.811	1.912	0.955	1.338	0.567	0.673	-1.704	0.584
	(0.996)	(0.576)	(1.376)	(0.885)	(1.292)	(0.738)	(1.261)	(0.552)
Mean(1950-52)	0.817	0.806	0.642	0.547	0.567	0.496	0.158	0.173
N	1142	1350	1142	1350	1142	1350	1142	1350
R-squared	0.357	0.305	0.196	0.141	0.222	0.270	0.155	0.146
Clusters	49	52	49	52	49	52	49	52
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dist FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Reference: Parliament cycle (1950–1952). Low = Low political concentration (below median); High = High political concentration (above median). CC = Cycle-to-cycle turnover. Political concentration measured as share of families per seats in each district for the 1924–1952 period. All speci cations include district and parliament xed effects. Standard errors clustered at district level. * p<0.1, ** p<0.05, *** p<0.01

Table 2.3 – Land Reform Effects by Political Concentration

	CC MP		CC Family		MP Entry		Family Entry	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	LM	HM	LM	HM	LM	HM	LM	HM
LR×(1936–1938)	-0.342	0.477	0.233	1.408	-0.658	-1.058	-0.024	-1.505
	(0.727)	(1.446)	(0.736)	(1.498)	(0.669)	(1.374)	(1.095)	(1.280)
LR×(1938–1942)	0.479	1.607	0.523	1.097	-0.330	-0.837	-0.649	-0.899
	(0.448)	(1.570)	(0.607)	(1.388)	(0.482)	(1.598)	(0.651)	(1.117)
LR×(1942–1944)	-0.754	3.069	-0.162	1.161	-0.914	1.802	-1.347	0.602
	(0.626)	(0.995)	(0.872)	(1.614)	(0.761)	(1.401)	(0.895)	(1.490)
LR×(1945–1949)	-0.369	2.720	-1.416	3.134	0.094	0.280	-1.021	0.111
	(0.307)	(1.115)	(0.699)	(1.598)	(0.996)	(1.425)	(0.858)	(1.159)
LR×(1956–1958)	0.230	2.477	-0.528	3.404	-0.308	0.846	-0.985	-0.212
	(0.411)	(1.048)	(0.553)	(1.187)	(0.473)	(1.049)	(0.998)	(1.594)
LR×(1960–1961)	0.726	2.701	0.230	2.496	0.163	1.174	-0.054	-0.450
	(0.627)	(1.570)	(0.582)	(1.115)	(0.547)	(1.429)	(1.194)	(0.977)
LR×(1964–1968)	0.211	0.144	-0.114	1.509	-0.136	-2.105	2.048	-1.524
	(0.533)	(1.073)	(0.711)	(1.202)	(0.487)	(1.165)	(0.987)	(1.165)
LR×(1969–1971)	0.753	4.324	0.218	6.518	-0.104	2.446	-0.110	1.537
	(0.670)	(1.268)	(0.937)	(1.332)	(0.798)	(1.284)	(1.070)	(1.657)
LR×(1971–1976)	1.205	2.898	0.896	2.801	0.722	0.566	0.175	-0.326
	(0.548)	(1.148)	(0.766)	(1.208)	(0.542)	(1.689)	(0.576)	(1.282)
Mean(1950-52)	0.831	0.794	0.573	0.610	0.532	0.529	0.177	0.162
N	1270	1231	1270	1231	1270	1231	1270	1231
R-squared	0.323	0.340	0.159	0.189	0.229	0.275	0.143	0.161
Clusters	50	52	50	52	50	52	50	52
Cycle FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dist FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Reference: Parliament cycle (1950–1952). LM = Low-Medium landholdings (below the median); HM = High-Medium landholdings (above the median). CC = Cycle-to-cycle turnover. All speci cations include district and parliament xed effects. Standard errors clustered at district level. * p<0.1, ** p<0.05, *** p<0.01

Table 2.4 – Land Reform Effects by Medium Landholding size

Chapter 3

Outlasting the Regime: Parliamentary Dynasties and Elite Persistence in Egypt, 1824–2020

Co-authored with Mohamed Saleh (LSE).

3.1 Introduction

Political families are a persistent feature of legislative institutions across the world. A growing literature shows that longer legislative careers increase the probability that relatives subsequently attain office, and that incumbency advantages hinder the entry of new groups, sustaining dynastic reproduction across generations (Dal Bó et al., 2009; Querubin, 2016). Yet this literature examines dynastic persistence within relatively stable institutional environments. The harder question remains open: how do political families survive major regime disruptions — colonization, revolution, authoritarian transitions, large-scale institutional reforms — that formally dismantle the conditions sustaining them? Understanding whether and how dynastic advantage persists across critical junctures is central to explaining long-run patterns of elite persistence and political turnover.

Existing studies offer partial answers. Research in economic history documents the long-run persistence of elite status across generations (Clark, 2014; Galli et al., 2024), but focuses on socioeconomic status rather than legislative power. Work on elite survival at moments of dis-

ruption (Robinson, 2010; Acemoglu et al., 2005) typically analyses single transitions, leaving open whether survival follows systematic patterns across multiple successive ruptures. Hartnett and Saleh (2021) show that the British occupation of 1882 co-opted rather than displaced incumbent Egyptian parliamentary elites, but whether this logic held across subsequent transitions — including the 1952 revolution — remains unanswered. No existing study tracks the same set of political families across four successive regime changes within a single country over nearly two centuries.

Egypt's parliament offers a unique setting to study this question. Operating continuously from 1824 to 2020 across four distinct political regimes — the pre-colonial consultative assemblies under Muhammad Ali and his successors, the British colonial period, the constitutional monarchy, and the republican era under Nasser, Sadat, and Mubarak — it provides an unusually long and institutionally varied record of parliamentary life within a single country. Each transition formally disrupted the conditions of political entry: property thresholds were raised and then abolished, parties were banned and then restored, land reform redistributed the asset base of the landed notable class. Yet families holding parliamentary seats proved remarkably persistent across these successive orders. We study not only whether elites survived critical junctures, but also the modes through which they did so.

We constructed an original dataset covering the near-complete universe of Egyptian MPs across 44 parliamentary cycles between 1824 and 2020, and document four findings. First, dynasties form early: most of Egypt's parliamentary families were established in the first half-century of parliamentary life, before the British occupation, and from the colonial period onward parliament is overwhelmingly populated by heirs rather than founders. Second, the reproductive logic of the dynastic system transformed at 1952: pre-revolutionary circulation — families leaving and returning in a musical chairs dynamic — gave way to permanent exit as the modal outcome, with re-entry now regime-controlled rather than family-determined. Third, regime change filters the dynastic elite by depth of embedding rather than replacing it: at every transition, the most recently ascendant cohort takes the largest losses while older cohorts pass through with little disturbance, and pre-1882 dynasties retain roughly 20% of seats into the contemporary period. Fourth, the spatial structure of dynastic power collapsed at 1952: local cartels that had concentrated multiple seats per family in their base province under the constitutional monarchy were dismantled, even as aggregate dynastic persistence at the national level was maintained.

Taken together, these patterns describe an elite that survives regime change not as a fixed social class but as an active intermediary stratum capable of repositioning its economic and techno-

cratic credentials across institutional orders. The most deeply embedded dynasties functioned as indispensable local intermediaries, making their co-optation less costly for incoming regimes than attempting wholesale elite replacement. Surviving families shifted from landed elites to bureaucratic and professional roles under Nasser, and to private business networks under Mubarak, while maintaining parliamentary presence throughout.

The paper engages with three strands of literature. The first shows that political power can be self-reinforcing within families under stable institutional conditions. Dal Bó et al. (2009) demonstrate that holding office increases the probability that a politician's relatives subsequently enter the same legislature, while Querubin (2016) documents similar patterns in clientelistic environments where incumbents deploy public resources and patronage networks to entrench their families. Comparable levels of dynastic representation have been documented in democratic legislatures: roughly 8–12% of US legislators are dynastic, declining over time (Dal Bó et al., 2009), around 7% of Norwegian MPs are dynastic (Fiva and Smith, 2018), roughly 10% of Argentine legislators have relatives entering future congresses (Rossi, 2014), 20–40% of national politicians in Mexico have family ties to other politicians, and 25–28% of Japanese Lower House members are dynastic (Asako et al., 2015) — figures that remain substantially below the 60–80% documented here under the constitutional monarchy and the roughly 60% that persists into the contemporary period, reflecting a dynastic entrenchment with no parallel in stable democratic settings.

The second strand, rooted in economic history, documents the long-run persistence of elite status across generations using surname-based and genealogical approaches. Clark (2014) and Clark and Cummins (2014) show that elite families retain advantages in wealth, education, and political access over very long horizons, while Galli et al. (2024) find that critical junctures can produce only temporary declines in elite persistence before similar families reconstitute their position. This work establishes dynastic persistence as a general empirical regularity but focuses mainly on socioeconomic status rather than on the reproduction of legislative power, and does not identify which families survive institutional ruptures or why.

The third strand examines elite survival at moments of political disruption. Robinson (2010) emphasises the role of elites in institutional persistence, while Acemoglu and Robinson (2006) and Acemoglu et al. (2005) argue more broadly that the distribution of political power shapes both institutional continuity and change. Historical evidence also shows that institutional shocks can generate long-run persistence through their effects on elite organisation and resource control: Dell (2010) demonstrates that the colonial Mita system in Peru produced durable spatial

patterns of elite landholding and public goods provision that persisted long after the institution itself was abolished. In the Egyptian context, Hartnett and Saleh (2021) show that the British occupation of 1882 co-opted rather than displaced incumbent parliamentary elites. Yet existing studies typically analyse single transitions, leaving open the question of whether elite survival follows systematic patterns across multiple regime changes.

3.2 Brief History of Egyptian Parliament

This section traces the successive institutional con gurations of the Egyptian parliament from 1824 to 2020, outlining how the formal conditions of political entry evolved across regime types.

Parliamentary life in Egypt began in 1824 under Muhammad Ali, who established a consultative assembly primarily to secure the cooperation of provincial elites in implementing scal, military, and agricultural reforms (Weipert-Fenner, 2020). Representation was initially restricted to 24 appointed local notables, and the body was expanded under the Law of 2 September 1829 to comprise 99 elected village leaders chosen by local elites, 33 deputies appointed by Muhammad Ali, 24 district governors, and 4 ulama, with candidacy requiring payment of a 500-piaster land tax (Landau, 1953; Hartnett and Saleh, 2025). From its earliest sessions, the chamber was dominated by the a'yan al-rif, the provincial rural notables who had accumulated land, bureaucratic authority, and social in uence (Weipert-Fenner, 2020). The 500-piaster threshold restricted candidacy to a narrow stratum of provincial landowners. The body was dissolved in 1837 and replaced by an expert diwan system after the 1838 free trade treaty weakened Muhammad Ali's capacity to rule through notable cooperation (Weipert-Fenner, 2020).

Parliamentary life resumed under Khedive Ismail in 1866 with the establishment of Majlis Shura al-Nuwwab, comprising 75 deputies from 14 governorates, and convened for two-month annual sessions (Hartnett and Saleh, 2025). The 500-piaster land tax threshold was retained, but the more decisive lter operated through the electoral mechanism itself: the 1866 law con ned the rural electorate to the village headmen (shuyukh al-balad) of each district, who selected their MP by secret ballot, while urban constituencies were elected by notables through consensus (Hartnett and Saleh, 2025). The selection mechanism mechanically restricted candidacy to the a'yan al-rif, whose economic power had been further entrenched by the cotton boom of 1861–1865 (Weipert-Fenner, 2020; Hartnett and Saleh, 2021). The boom also triggered an intra-elite con ict over labour, as both the landed elite and the rising rural middle class expanded cotton production and competed for scarce rural labour in cotton-belt provinces (Hartnett and

Saleh, 2025). Following Egypt's 1876 default on its foreign debt and the 1878 imposition of the Dual Control of British and French ministers in the cabinet, the chamber became increasingly active, culminating in the 1879 draft basic and electoral laws that codi ed parliamentary budget approval, three-month sessions, three-year terms, and an elected speaker, and the 1882 rati ed constitution that granted the chamber broad legislative powers, ve-year terms, ad hoc committees, and ministerial accountability (Weipert-Fenner, 2020; Hartnett and Saleh, 2025). Both reforms were reversed within months by the British occupation (1882).

The British occupation of 1882 reorganized parliamentary institutions into advisory bicameral bodies designed to stabilize colonial governance while preserving the political in uence of large landowners. The 1883 electoral law established a Consultative Legislative Council of 30 members, of whom 14 were appointed for life by the Khedive and 16 elected every six years by provincial councils, alongside a General Assembly of 82 members of whom 46 were elected and the remainder comprised the cabinet and the Council members ex of cio (Landau, 1953). The colonial reform tightened rather than loosened the property bar: the land tax threshold for candidates was raised tenfold to 5,000 piasters, and General Assembly candidacy required a minimum annual payment of £E50 in direct taxes (Landau, 1953). The 1913 Legislative Assembly Law expanded elected seats to 66 of 83 and introduced two-stage indirect elections that allowed local notable structures to dominate the second stage even with nominally universal male suffrage from age 20 (Weipert-Fenner, 2020). Turnout collapsed below 20% in rural areas and below 5% in urban centres, leaving approximately 74% of elected members as landowners by 1913 despite the formal franchise extension (Weipert-Fenner, 2020). The formal rules changed at this transition; the social lter did not.

The constitutional monarchy established in 1923 introduced competitive multiparty elections under a bicameral system, with a fully elected Chamber of Deputies (Majlis al-Nuwwab) and a partly appointed Senate (Majlis al-Shuyukh). The property bar for candidacy was removed and the franchise extended to all adult males. The 1924 amendments abolished indirect voting and property requirements outright, and in the rst independent elections the Wafd Party won 192 of 214 seats in the Chamber of Deputies (Weipert-Fenner, 2020). Removing the property bar shifted the lter from formal eligibility to informal accumulation: economic resources, family networks, and the standing of an established parliamentary lineage (Springborg, 1982). Structural advantages for the elite persisted in the institutional framework itself: while the Chamber of Deputies was fully elected, the king retained the prerogative to dissolve either chamber at any time, a power exercised frequently throughout the period and entrenched further by the

1930 authoritarian constitution before its 1935 reversal (Weipert-Fenner, 2020). The formal democratisation of access under the 1923 constitution did not translate into social diversi cation of the Chamber of Deputies (Blaydes, 2011).

The republican period after 1952 introduced the most substantial institutional transformation. Parliamentary life was suspended, parties were banned, and representation was reorganized under successive single-party mass organizations: the Liberation Rally (1953–1956), the National Union (1957–1961), and the Arab Socialist Union (1962–1976) (Weipert-Fenner, 2020; Blaydes, 2011). The 1956 constitution restored a unicameral National Assembly of 350 members elected from 175 two-member districts, with universal adult suffrage including women for the rst time (Blaydes, 2011). The 1958–1961 union with Syria created a 600-member binational chamber comprising 400 Egyptian and 200 Syrian deputies, dissolved upon Syria's secession (Weipert-Fenner, 2020). The formal property bar was replaced by a political screening mechanism: candidates required prior approval from the single-party authorities, and in 1964 only 1,748 of 3,570 nominated candidates were permitted to run (Blaydes, 2011). In 1962 a mandatory 50% worker-farmer quota was introduced to broaden formal representation, although the broad de nition of farmer allowed the rural middle class to qualify and local ASU branches remained dominated by village mayors and well-off farmers who had reconstituted their parliamentary access through the new institutional vehicle (Weipert-Fenner, 2020; Blaydes, 2011).

The transition to managed multipartism began with Sadat's division of the ASU into three platforms (manabir) in 1976 and the 1977 Parties Law, which formally re-established multiparty competition under heavy state regulation. Independent candidates were readmitted in 1976 and won 14% of seats (Weipert-Fenner, 2020). From this point onward the principal candidacy lter became electoral system design itself, and the law was altered before nearly every parliamentary cycle to manage intra-elite competition rather than open access to new social groups (Blaydes, 2011). The 1983 law replaced individual candidacy with a proportional representation system imposing an 8% nationwide party threshold, redistributing sub-threshold seats to the largest party, reducing districts from 175 to 48, and expanding seats from 350 to 448 (Blaydes, 2011). The 1987 amendment, following a Supreme Constitutional Court (SCC) ruling, reserved 48 seats for independents (one per district), but produced 40 NDP-af liated independents out of 48 elected (Blaydes, 2011). A second SCC ruling in 1990 invalidated the 1987 system and forced a return to individual candidacy across 222 two-member districts, the framework that governed elections through 2010 (Blaydes, 2011).

Within the post-1990 framework, the effective lter became nancial. The NDP did not -

nance candidate campaigns, requiring candidates to construct and fund their own local support networks, with average campaign expenditure exceeding LE 12 million in the 2005 elections (Blaydes, 2011). Reelection rates of incumbent MPs fell from 42% in 1995 to 26% in 2000 and 19% in 2005, indicating that individual MPs became increasingly disposable even as the broader stock of parliamentary families remained stable (Blaydes, 2011). Many families previously rooted in landed in uence remained politically active by converting their capital from land to state connections to private business as each new institutional order demanded (Weipert-Fenner, 2020). The 2011 uprising was followed by the 2012 SCAF-supervised elections, which were dissolved by court ruling. The 2014 constitution under Sisi and the 2016 House of Representatives then restored a managed authoritarian composition through a mixed system of 568 elected and 28 presidentially appointed seats, with state-vetted candidacy.

3.3 Data and Measurement

3.3.1 Parliamentary Dataset

We constructed a dataset at the level of the MP, chamber, and parliamentary cycle that spans the full universe of Egyptian parliamentarians from Muhammad Ali's rst assembly (1824–1837) through the 2015–2020 parliament—a total of 44 parliamentary cycles covering nearly two centuries of political representation. The primary source for the period 1824–1947 is History of Parliamentary Life in Egypt since the Era of Muhammad Ali Pasha, compiled by Subhi (1947). To extend coverage after 1947, we complemented this source with primary lists of MPs obtained from the Egyptian Parliamentary Archives.

During the pre-colonial period, consultative assemblies were convened under Muhammad Ali Pasha and his successors Khedive Ismail Pasha and Khedive Taw q Pasha.[1] Following the British occupation of 1882, representative institutions continued to operate under colonial supervision in a bicameral structure combining appointed councils with broader consultative assemblies.[2] Following the 1923 Constitution, Egypt adopted a fully bicameral system composed of the Chamber of Deputies and the Senate, operating under the constitutional monarchy until the 1952 revolution.[3] After the 1952 revolution, republican legislative institutions operated

1. Under Muhammad Ali Pasha: 1824–1837. Under Khedive Ismail Pasha: 1866–1869, 1870–1873, 1876–1879. Under Khedive Taw q Pasha (pre-occupation): 1881–1882.

2. Under Khedive Taw q Pasha (post-occupation): 1883–1890, 1885–1889, 1890–1895, 1891–1894. Under Khedive Abbas Helmy II: 1896–1899, 1896–1901, 1902–1907, 1908–1913, 1909–1912, and the partially elected Legislative Assembly cycle 1913–1923.

3. Under King Fouad I: two short-lived chambers in 1924, followed by cycles in 1925, 1926–1928, 1930, and 1931–1934. Under King Farouk: 1936–1938, 1938–1942, 1942–1944, 1945–1949, and 1950–1952.

majoritarily as unicameral assemblies across the presidencies of Nasser, Sadat, and Mubarak, and continued through the post-2011 transitional period and the Sisi era.[4]

3.3.2 Variables and Identifiers

The dataset contains a rich set of variables recorded at the level of each MP–cycle–chamber observation. For each MP, we observe their full name, gender, religion, honorific title,[5] occupation,[6] and party affiliation. Parliamentary context variables record the chamber name, the head of state, and the start and end dates of each term. Constituency variables link each MP to their governorate, district, and village of representation. Mode of entry captures whether the MP was elected or appointed, and the quota classification of the seat by occupation (1961–2010). Term completion variables record whether the MP served the full cycle and a parliament-level interruption flag captures cycles dissolved before their scheduled end.

Based on this information, we manually matched each MP across parliamentary cycles and chambers using the MP's full name to construct a unique individual identifier tracking political careers over time. The Egyptian legal full name is constructed patrilineally, consisting of the MP's first name followed by his father's first name, paternal grandfather's first name, and so on. We then extracted the last name from each MP's full name to construct a unique family identifier capturing dynastic linkages across MPs, chambers, and cycles. This procedure works directly for the pre-1952 period, when parliamentary representation was concentrated in a narrow stratum of named families easily distinguished by their last names. After 1952, the expansion of the political base brought into parliament many rural MPs carrying common Arabic surnames such as Mohamed, Ahmed, Hassan, Ali, and Mustafa, creating a risk of false matches across unrelated MPs sharing the same surname. To address this, we constructed a list of 24 common last names appearing in our dataset and apply two additional rules to MPs whose last name appears on the list. First, two MPs must share their last two names rather than one to be classified as members of the same family. Because the full name is patrilineal, requiring two matching last names adds the constraint that both MPs share a common paternal grandfather.

4. Under President Nasser (National Assembly): 1956–1958, 1960–1961, 1964–1968, 1969–1971. Under President Sadat (People's Assembly): 1971–1976, 1976–1979, 1979–1984. Under President Mubarak (People's Assembly): 1984–1987, 1987–1990, 1990–1995, 1995–2000, 2000–2005, 2005–2010, 2010–2011. Although an appointed Shura Council existed between 1980 and 2011, legislative authority remained concentrated in the lower chamber. Following the 2011 uprising, one parliament was elected in 2012 under the Supreme Council of the Armed Forces; parliamentary life resumed under President Sisi with the House of Representatives cycle 2016–2020.

5. Honorific titles were abolished under the Revolutionary Command Council in 1952 and are therefore absent from all cycles from 1956–1958 onwards.

6. The occupation variable is present across cycles but inconsistently filled: coverage is near-complete for some cycles and falls below 10% for others, particularly for the cycles spanning 1956–2000.

Second, two MPs with matching last two names must also share the same district, since families with provincial roots remained geographically concentrated throughout our period (Springborg, 1982). These rules prioritize avoiding false matches over false non-matches, the conservative direction for our analysis, since false matches would arti cially in ate dynastic continuity.

3.3.3 Dynasty Classi cation and Turnover Measures

3.3.3.0.1 Dynasty typology

The rst analytical step is to determine, for each MP in the dataset, whether they belong to a parliamentary dynasty. We classify each MP into one of three mutually exclusive categories on the basis of two criteria: how many parliamentary sessions the individual personally served (single-session vs. multi-session), and whether other MPs share their family name (single-MP vs. multi-MP family).

The rst category, multi-session multi-MP dynasties, denotes families that send different individuals to parliament across multiple cycles. These are the genuine parliamentary dynasties: a family identi er is shared by at least two distinct MPs, each of whom may serve one or several cycles. We refer to MPs in this category as Dynastic MPs, and they form the principal object of analysis throughout the paper. The second category, multi-session single-MPs, denotes individuals who serve in multiple parliamentary cycles but whose family name is not shared with any other MP in the dataset. These are politicians with sustained personal parliamentary careers who do not establish a family lineage in the legislature. We call them Self-made MPs. The third category, single-session single-MPs, captures MPs who serve in only one cycle and have no identi ed family connection to any other MP. We call them Single-timers. They represent one-off entrants whose parliamentary presence neither extends individually across cycles nor reproduces through relatives.

Within the Dynastic MP category, a further distinction is necessary for the analysis of dynastic formation. We classify each Dynastic MP as either a dynastic founder or a dynastic heir according to whether they are the rst member of their family to enter parliament or follow a relative who had already held a seat. Founders are the originating link in a dynastic chain — the MP whose entry, retrospectively, marks the founding of the family's parliamentary presence. Heirs are subsequent family members who enter parliament after at least one relative has already done so. This distinction is central to the analysis in Section 3.4.1, which traces when in Egyptian parliamentary history dynastic families were created (founders) and when they were reproduced (heirs).

3.3.3.0.2 Cohort of origin

Each dynasty is assigned to a single cohort of origin, de ned as the regime era in which the family's founder rst entered parliament. The cohorts correspond to the major institutional con gurations of Egyptian parliamentary history identi ed in Section 2: pre-colonial (1824–1882), British occupation (1882–1924), constitutional monarchy (1924–1952), Nasser era (1952–1971), Sadat era (1971–1984), and post-1984. The cohort label travels with the family across all subsequent cycles and across regime transitions, so that a dynasty founded under the constitutional monarchy retains its 1924–1952 cohort identity even when its later members serve under Nasser, Sadat, or Mubarak.

3.3.3.0.3 Family-level exit decomposition

We measure dynastic survival by classifying each family in each parliamentary cycle according to what happens to it in subsequent cycles. The decomposition is forward-looking, partitioning families into three mutually exclusive categories that together capture the full range of post-cycle outcomes. A family is classi ed as continuing if at least one of its members holds a seat in the immediately following parliament. A family is classi ed as temporarily absent if no member holds a seat in the immediately following parliament but at least one member appears in some later cycle, indicating that the family withdraws from parliament without leaving permanently. A family is classi ed as permanently lost if no member of the family ever holds a seat in any subsequent cycle and this is the last cycle they serve.

The decomposition is computed for every family-cycle observation, and the share of MPs in each cycle whose families fall into each of the three categories provides the time series we analyze. Together, the three categories are equal to 100% by construction.

3.4 Results

The Egyptian parliament has been a dynastic institution throughout its modern history. This section documents four features of that dynastic character: how families form and reproduce within the chamber, how they exit, how they survive regime transitions, and how their power is distributed across provinces. Together, these features describe a dynastic system that persisted across nearly two centuries and four distinct political regimes — including the 1952 revolution, the most radical attempted rupture of the period.

3.4.1 Foundation

Egypt's parliamentary dynasties were founded early. As shown in Figure 3.1, founders dominate the earliest cycles since its creation in 1824, accounting for 35–60% of MPs between 1824 and 1879, before stabilizing at 10–25% over the rest of the nineteenth century. From the colonial period onward (1883–1924), heirs rose rapidly to become the structural majority of dynastic MPs, exceeding 60% from the 1890s and reaching nearly 80% during the constitutional monarchy (1925–1952), before stabilizing around 60% through 2020. The vast majority of families that would shape Egyptian politics were founded in the first half-century of parliamentary life.

After the creation of the Parliament, New founders usually enter parliament episodically, concentrated around regime ruptures and moments when the institutional framework opens to admit new participants. The largest such opening occurred around the 1924 cycle. The rise in founder rates begins earlier: many of the MPs who served between 1913 and 1923 were part of the nationalist movement that pushed for independence and the drafting of the 1923 Constitution, which explains why founder shares rose to 20–30% during this period. The first cycles under the 1923 Constitution then produced a particularly large influx of new founders in both chambers: the 1924 cycle of the Chamber of Deputies and the 1924–1930 cycle of the Senate. Two factors drove this. First, these were the first cycles with full legislative authority rather than purely consultative powers. Second, parliamentary seats were substantially expanded, opening room for new families to enter. Both Chamber of Deputies cycles in 1924–1925 were dissolved within a year of opening, but once the system stabilized from 1925 onward, founder rates declined as the heir-dominated equilibrium reasserted itself.

The pattern recurs at each subsequent moment of institutional change. In 1930, the new constitution expanded royal prerogatives at the expense of the Chamber of Deputies, producing a brief rise in founder rates to around 10% before they returned to lower levels. The 1952 coup represents the last major opening: founder rates rose to roughly 20%, the highest under the republican era, and remained around 15% for the following two decades, including the institutional restructuring and openess associated with the formation of the Arab Socialist Union in 1964, before falling below 5% from the late 1970s onward.

From 1956 onward, the share of self-made MPs and single-timers rises steadily, accelerating after 1984 as dynasty formation weakens. Two successive filters drove this. Between 1976 and 1990, the principal barrier was electoral system design: candidacy rules changed before nearly every cycle, switching between proportional representation, party lists, and individual

candidacy (Blaydes, 2011). After 1990, the lter became nancial: running for a parliamentary seat required self- nancing an entire local support network, with average campaign expenditure exceeding LE 12 million by the 2005 elections (Blaydes, 2011). At that threshold, new entrants could absorb the cost of a single appearance but not the repeated investment required to establish a lineage, leaving sustained multi-cycle entry to families with accumulated parliamentary capital and reducing newcomers to single-cycle appearances.

The contrast between the 1924 and 1952 openings is therefore not just one of magnitude but of who enters and how durably they remain. In 1924, the new entrants were predominantly founders who went on to establish enduring dynasties. In 1956, by contrast, founders of new dynasties and self-made MPs entered on roughly equal footing, but the self-made MPs proved more durable in occupying their seats than the founders. The post-1952 system thus admits non-dynastic individuals who build personal political careers but do not establish lineages. The dynastic core itself, however, is not uniform: families enter at different historical moments do not have the same endurance.

3.4.2 Cohort Resilience

Among the dynastic families established across the periods documented above, those entering at different historical moments fared differently across subsequent transitions. Figure 3.2 decomposes parliamentary composition by cohort of origin, de ned as the regime era in which each dynasty rst entered parliament: pre-colonial (before 1882), colonial (1882–1923), constitutional (1924–1952), and republican (post-1952). The pattern is striking: at each political juncture, the most recently ascendant cohort suffers the largest reduction in parliamentary share, while older and more deeply embedded cohorts prove comparatively resilient.

The pre-colonial cohorts are the most enduring parliamentary dynasty in Egypt. The 1882 colonial juncture provides the rst illustration. Approximately 50% of pre-colonial dynasties survived the transition, after which parliament was shared between the surviving pre-colonial cohort and a newly entering colonial one. The 1924 transition, accompanied by the expansion of parliamentary seats under the new constitution, saw a partial recovery of pre-colonial elites returning to claim seats in the newly enlarged legislature (Figure C.3), with the highest survival rate close to 90%.

The constitutional monarchy that followed (1924–1952) proved to be the moment of greatest dynastic entrenchment, with families that entered through the 1924 window remaining and accumulating parliamentary capital alongside the older pre-colonial elite. The colonial cohort, by

contrast, was largely displaced by the constitutional one: pre-colonial families retained their share through the constitutional monarchy, while colonial entrants lost ground to the new constitutional cohort.

The same asymmetry occurs in 1952. The colonial and constitutional cohorts took the largest losses, while the pre-colonial cohort maintained its share across the transition. Critically, no cohort is ever fully eliminated: pre-colonial dynasties, founded before 1882, retain around 20% of seats into the contemporary period, tracing an unbroken dynastic presence across nearly two centuries of Egyptian parliamentary life. The general pattern across transitions is that the older the dynasty, the more resilient it is across regime change. Recently ascendant cohorts take the largest hits; deeply embedded older cohorts pass through them with little disturbance. The regime change lters the dynastic elite rather than replacing it.

The post-1952 cohort reaches 20–25% of seats but does not extend the pattern of accumulating dynastic depth established by earlier cohorts. Most post-1952 entries occurred during the Nasser period, with a smaller wave entering under Sadat that did not approach the scale of the earlier founding moment. The republican cohort preserved its share through the early Mubarak period, but from the 1990s onward both the post-1952 and constitutional monarchy (1924–1952) cohorts contracted. Founder rates fell below 5% over the same period, self-made MPs declined, and single-timers rose to ll the space. The pre-colonial and colonial cohorts, by contrast, preserved their share throughout. By the post-2011 cycles, the Egyptian parliament is divided roughly equally between dynastic MPs on one side and single-timers on the other.

3.4.3 Circulation

So far we have asked which dynastic cohorts persist across regime transitions. The complementary question is temporal: how do parliamentary families behave between cycles, and what does the rhythm of their service reveal about how the parliament reproduces itself? Figure 3.3 classi es families in each cycle by what happens to them in subsequent cycles: continuing into the next parliament, temporarily absent but returning later, or never returning — that is, the family's last serving cycle. Since the classi cation is forward-looking, the cycles immediately preceding each juncture are directly informative about who survives it.

A high share of “never returning” in the pre-juncture cycles identi es families whose last parliamentary appearance fell just before the rupture — these are the families the transition will terminate. A high share of temporary absence in the same cycles identi es families that will lose their seat around the rupture, will temporarily interrupted but not eliminated. A high share of

continuing families signals those that are established to hold their seat throughout the transition without interruption.

The temporarily absent families — those exiting parliament for one or more cycles before returning — have been a de ning feature of Egyptian parliamentary life since its founding, and their decline after 1952 marks one of the sharpest structural breaks in the data. Across the pre-colonial and colonial cycles, this group dominated, accounting for more than 50% of MPs in most cycles, indicating that exit was recoverable and elimination rare. Around the 1882 juncture, temporary absence reached roughly 70% in the 1881–1882 cycle, meaning that the vast majority of families that lost their seat during the transition eventually returned — either during the colonial period or after nominal independence in 1919 (Figure C.3).

The picture shifts in the cycles immediately preceding 1924. The 1913–1923 cycle show a higher share of continuing families, which aligns with the rise of founders in Figure 3.1, those carried through into the constitutional monarchy without interruption. From 1924 onward, continuity and temporary absence converge: both hovered between 40% and 50% between 1924 and 1952, with families cycling in and out across multiple terms in a musical chairs dynamic. Missing a parliamentary term was a temporary interruption rather than permanent exit, and competition was intense among elites without corresponding openness to outsiders. After 1952, there was a divergence between continuing families that started rising, and the temporary ones that started declining, meaning that families that leave are unlikely to return.

Tracking family entry and exit jointly reveals more about the nature of each political juncture than aggregate persistence measures alone. A high share of permanent exit preceding a juncture combined with a surge of new entry in the rst cycle after it signals replacement — old families displaced by new ones. When both remain elevated simultaneously, it indicates ongoing instability: continuous substitution rather than settled reproduction.

As shown in Figure 3.4, new family entry exceeded permanent exit across most of the earlier cycles, particularly during the foundation period when the parliament was still expanding and new families entered without displacing established ones. The 1924 juncture follows this pattern: a surge of new entry without a corresponding rise in permanent exit, indicating an opening that was additive rather than substitutive — new families joined the system alongside existing ones rather than replacing them. The 1956 cycle presents a sharper contrast. New entry and permanent exit both rise simultaneously, indicating a genuine replacement dynamic: families exiting around the 1952 rupture were substituted by new entrants rather than returning. Critically, both

shares remain elevated in subsequent cycles, suggesting that the post-1952 system never settled into a stable reproductive equilibrium — families continued to exit permanently and be replaced by new entrants across successive cycles, producing continuous instability without consolidation for either group.

This shift marks a structural transformation in how the dynastic system operates across three distinct phases. Pre-1952, the system reproduced through circulation: families left and returned, sustained by movement in and out of of ce across a wide rotating pool. Under Nasser and Sadat, it reproduced through selection: a narrower set of aligned families served continuously while those that lost access did so permanently. Under Mubarak, it shifted to churning: the continuing share contracted, single-timers multiplied, and neither dynastic nor non-dynastic MPs accumulated the sustained presence that characterized the Nasser-Sadat period. Aggregate dynastic share remained signi cant across these transitions, but the mechanism of dynastic reproduction changed fundamentally at each phase — from rotation, to consolidation, to fragmentation — with a residual core of deeply embedded dynasties persisting throughout.

3.4.4 Spatial Concentration

Having examined the temporal dimension of dynastic reproduction, we turn to its spatial counterpart: how dynastic power was distributed across provinces and how that geography changed over time. To do so, we construct a measure of provincial seat accumulation at the province and period levels, focusing on the 16 provinces with stable boundaries and excluding single MP-families. The measure — seats per family — captures the average number of seats accumulated by each dynastic family within a province across all cycles of a given period. Higher values indicate greater concentration, with fewer families capturing a larger share of provincial representation.

Figure 3.5 reveals a clear non-linear pattern in provincial dynastic concentration. In the pre-colonial period, families accumulated only slightly more than one seat per province on average, re ecting the early stage of parliamentary development. Under the colonial period (1882–1924), concentration increases, with families accumulating around 2.2 seats on average and substantial variation across provinces. The constitutional monarchy (1924–1952) marks the peak: accumulation rises sharply to around 3.3 seats per family, with limited dispersion across provinces. Provincial representation became concentrated within a small and stable set of families even as cycle-to-cycle turnover among those same families remained high.

The 1952 revolution produces a sharp break. Seat accumulation per family falls to around

1.6, close to founding-period levels, re ecting the entry of new families and the disruption of previously accumulated local dominance. Concentration remains low under Nasser and Sadat, with a modest increase in the later period (1984–2020). Aggregate dynastic persistence at the national level was preserved (according to Section 3.4.2) even as local concentration collapsed: surviving families maintained national presence without monopolizing speci c provinces.

3.5 Discussion

The results establish that dynastic persistence is real, monotonic with depth of embedding, and survived every major institutional rupture of the past two centuries. This section asks why.

3.5.1 The Mediating Stratum and Its Institutional Origins

The foundation of Egyptian parliamentary dynasties rests on a stratum that preceded parliament itself. The a'yan al-rif — rural notables whose authority derived from their position as intermediaries between the state and the peasantry — account for roughly 85% of pre-1882 dynasty founders. Cuno (1980) con rms that this stratum predated Muhammad Ali's reforms, rooted in a rural hierarchy the state co-opted rather than constructed. They entered the rst assemblies not as a new political class but as existing local infrastructure for tax collection, labor coordination, and rural administration. Following Binder (1978), land was the recognized credential for this intermediary role, not its source — the 500-piaster threshold institutionally encoded an existing social hierarchy rather than constructing a new one.

The rst juncture of 1882 tests whether this founding social base survived institutional disruption. Approximately 50% of pre-colonial dynasties crossed the transition. The colonial administration could not displace the intermediary stratum: it was too embedded in the rural hierarchy to be replaced. It retained the wealthiest tier — those whose accumulated position allowed them to clear the new threshold. This was a structural rede nition of eligibility rather than a deliberate selection of allies: raising the property bar tenfold, from 500 to 5,000 piasters, let the rules do the sorting. The key prior is the cotton boom of 1861–1865: Hartnett and Saleh (2021) show that it was precisely in this period that the a'yan al-rif accumulated wealth through cotton production. Survival in 1882 therefore re ects accumulation that predates the transition. The wealthiest among the village headmen dynasties crossed into the colonial period and, as Figure 3.7 shows, their heirs appear overwhelmingly as landed elites, a generational conversion of intermediary position into property.

The colonial period then actively deepened the wealth of those who survived. The sale of daira saniyya lands and the expansion of large estates gave surviving families new avenues for the accumulation of land that the pre-colonial order had not offered (Moshrif, 2025). The intermediary role had been capitalized into property within a single generation, and it is this converted capital that sustained dynastic reproduction into the constitutional monarchy and beyond.

3.5.2 The Cartel at its Peak: Constitutional Monarchy (1924–1952)

The 1923 constitution removed the property bar, extended the franchise to all adult males, and introduced competitive multiparty elections. In formal terms this was the most open parliamentary system Egypt had seen. The data shows something different. Seats per family reaches 3.3 under the constitutional monarchy, and the exit decomposition shows that the high cycle-to-cycle turnover visible in this period was driven almost entirely by returning families, not by genuine new entry. Temporary absence is the modal outcome across 1924–1952, permanent exit is rare, and the 1924 founder wave was absorbed within two cycles as the heir-dominated equilibrium reasserted itself. The formal opening produced maximum substantive closure: the families rotating in and out were the same families, and outsiders were structurally absent rather than simply statistically rare.

The multiparty system did not change this. Abbas and El-Dessouki (1998) shows that landed elites were represented across all parties simultaneously, with members of the same family joining different parties as a survival mechanism rather than as ideological commitment. Competition was real and intense — Springborg (1982) documents intra-family rivalries over seats, with nomination depending on party alliances and patron networks — but it was competition within the existing pool, not against outsiders. The parties were hedging instruments for families already inside the system, not vehicles for new social groups to enter. Removing the property bar shifted the lter from formal eligibility to informal accumulation: family networks, parliamentary lineage, and provincial alliances (Binder, 1978; Blaydes, 2011). Outsiders could not acquire these quickly enough to break in before the existing equilibrium reasserted itself.

Springborg (1982) shows that elite families under the constitutional monarchy operated through two marriage strategies simultaneously: endogamy to preserve internal lineage cohesion and protect the provincial power base, and exogamy to lock in alliances with other powerful families across provinces. A family that lost a seat in one cycle did not lose its provincial position, and Springborg (1982) shows that these inter-family kinship networks — endogamy preserving internal cohesion, exogamy locking in provincial alliances — provided the social infrastructure

that made return possible across cycles. Binder (1978) con rms the structural logic — the second stratum's power derived from its position as rural-state intermediary, not from land ownership per se, so losing a seat temporarily did not mean losing the position that made re-entry possible.

Within this closed and self-reproducing system, the dynasties were not static. The heir occupation data shows that 40–50% of heirs under the constitutional monarchy appear as professionals and bureaucrats rather than landed elites — a substantial shift away from the village headman and landed pro le of the founders. The lter had changed: no longer formal property ownership, but accumulated family capital in the form of education, state connections, and provincial networks. The dynasties were converting their capital base internally while maintaining spatial and circulatory closure externally.

Section 3.5.3 traces how this class-wide pattern operated at the family level across nearly a century of parliamentary life.

3.5.3 Case Study: The Marei Family

Among Egypt's parliamentary dynasties, the Marei family of Sharqiya province is chosen for three reasons. First, Springborg (1982) treats its trajectory as exemplary of the broader second stratum rather than exceptional to it — a family that entered parliament through the classic a'yan al-rif formula of landownership, local of ce, and peasant dependence, making the mechanisms visible at the family level the same mechanisms the aggregate data captures across the full population of dynasties. Second, the family's record reproduces every pattern documented in the Results: spatial concentration under the constitutional monarchy, survival of the most embedded cohort at 1952, occupational conversion across successive regimes, and continuous parliamentary presence from 1924 to 2020 across four distinct political regimes. Third, and most strikingly, one of its members — Sayed Ahmad Marei — designed and implemented the 1952 Agrarian Reform, the very policy that redistributed land away from families like his own, and then crossed the revolution intact to serve continuously under Nasser and Sadat. The family that embodies the pre-revolutionary landed elite is also the family whose member dismantled it — and survived regardless.

The family traces its origins to an Arab-descended lineage that settled in the Delta and accumulated land through service and commercial opportunity over several generations. The founding patriarch, Marei Ibrahim Nasr, converted commercial wealth into landholdings and took the village headman (umdah) position — the classic intermediary formula of landownership, local

of ce, and peasant dependence that de ned the a'yan al-rif from the outset (Springborg, 1982). Table 3.1 traces the full parliamentary record.

Under the constitutional monarchy the family's parliamentary presence was already multi-member and bicameral. Hassan Marei held a seat in the Chamber of Deputies in 1924, 1936–1938, and 1942–1944, while Muhammad Amin Marei and Mustafa Marei held Senate seats simultaneously across 1936–1952. All three carried the Bek title and were listed as min al-a'yan — from the rural notables — in the parliamentary record. The family was not sending one candidate per cycle: it was holding multiple seats across both chambers at once, accumulating provincial space as a networked unit rather than as a collection of individual candidates. This is what the 3.3 seats per family gure looks like at the family level, and con rms Springborg (1982)'s argument that the organizational output of endogamy and exogamy was not just social cohesion but coordinated spatial control.

The 1952 transition is where the individual-level data is most striking. Sayed Ahmad Marei, who held a seat in the Chamber of Deputies in 1945–1949 under King Farouk, reappears in the National Assembly in 1956–1958 under Nasser — the same individual crossing the revolution intact. That he did so as the architect of the Agrarian Reform is not incidental: it is precisely what made him indispensable. He translated landed familiarity, agricultural expertise, and dense kinship alliances into technocratic credibility, offering the Nasserist state an intermediary who understood the rural order it was attempting to reorganize (Springborg, 1982). He appears again in 1964–1968 and continuously through the Sadat period into 1979–1984, now listed as engineer (muhandis) rather than rural notable. The occupation shift is the capital conversion made visible in a single row of data: the credential presented to the regime changed from landed notability to technocratic competence, while the person and the family remained.

Under Mubarak and beyond the family demonstrates the credential substitution pattern the aggregate data captures at scale. In 2005–2010 and again in 2010–2011, two Marei family members hold seats simultaneously: Muhammad Kamal Marei and Darwish Marei, the latter listed as businessman (rajul a'mal). By 2016–2020 Muhammad Kamal Marei is still present, now listed as accountant, running as an independent under Sisi. The credential has changed with each generation — rural notable, engineer, businessman, accountant — but the family has not left parliament. What sustained this unbroken presence was not kinship alone but the combination of two assets that proved durable across every institutional order: dense family networks that coordinated parliamentary access between cycles, and an adaptability in the economic and technocratic credentials presented to each successive regime. The family offered each regime

what it needed: rural knowledge and administrative capacity, while the kinship infrastructure ensured that losing a seat in one cycle did not mean losing the position that made re-entry possible in the next. What the aggregate cohort resilience finding shows statistically, the Marei record shows in a single unbroken parliamentary thread.

3.6 Conclusion

This paper has traced the parliamentary presence of Egyptian political dynasties across 44 cycles and four successive political regimes, from Muhammad Ali's first consultative assembly in 1824 to the House of Representatives under Sisi in 2020. Four findings emerge. Dynasties formed early and reproduced through lineage: the vast majority of families that would shape Egyptian parliamentary life were founded in the first half-century of parliamentary history, and from the colonial period onward parliament was overwhelmingly populated by heirs rather than founders. Regime change filtered rather than replaced the dynastic elite: at every transition, the most recently ascendant cohort suffered the largest losses while older and more deeply embedded cohorts passed through with little disturbance, and pre-1882 dynasties retained roughly 20% of seats into the contemporary period. The reproductive logic of the dynastic system transformed at 1952: pre-revolutionary circulation — families leaving and returning in a musical chairs dynamic — gave way to permanent exit as the modal outcome, with re-entry now regime-controlled rather than family-determined. And the spatial structure of dynastic power collapsed at 1952 even as national dynastic persistence was maintained: local provincial cartels were dismantled while the personnel they had organized survived under new institutional arrangements.

Together these findings point to a single interpretive conclusion. Egyptian parliamentary dynasties survived not as a fixed social class but as an active intermediary stratum whose persistence was rooted in a structural position — the mediation between state and rural society — that successive regimes found cheaper to co-opt than to replace. The credential through which that position was recognized changed with each institutional order: land under the pre-colonial and colonial systems, technocratic and bureaucratic competence under Nasser, private business networks under Mubarak. What did not change was the underlying function, or the depth of embedding that made the most ancient families the most resilient across every rupture. The Marei family illustrates this at the individual level: a single unbroken parliamentary thread from 1924 to 2020, across four regimes, achieved not through inertia but through repeated and deliberate credential conversion.

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Notes: Share of MPs in each parliamentary cycle classi ed into four categories: dynastic founders (the rst member of a multi-MP family to enter parliament), dynastic heirs (subsequ
members of an established dynasty), self-made MPs (multi-session individuals whose family name is not shared with any other MP), and single-timers (MPs serving in a single cycle
no identi ed family connection).

Figure 3.1 – Parliamentary Composition by Dynastic Status, 1824–2016

Notes: Stacked bars showing the share of seats held by families rst entering parliament in each historical era, by parliamentary cycle.

Figure 3.2 – Parliament Composition by Dynasty Cohort of Origin

Notes: Share of MPs in each cycle classi ed by what happens to their family in subsequent cycles. Continuing: at least one family member serves in the immediately following parliament. Temporarily absent: no family member serves in the next cycle but the family returns later. Permanent exit: no family member ever holds a seat again.

Figure 3.3 – Family-Level Exit Decomposition

Notes: Share of MPs in each cycle classi ed by their family's entry and exit status. Family New Entry: families entering parliament for the rst time. Family Permanent Exit: families whose last parliamentary appearance is this cycle.

Figure 3.4 – Family-Level Entry and Exit

Notes: Each box shows the distribution of average seats accumulated per dynastic family across the 16 core provinces in each regime period. Higher values indicate stronger concentration — fewer families accumulating more seats. Single-session MPs are excluded.

Figure 3.5 – Seats per Family by Province and Period

Notes: Stacked bars showing the occupational composition of dynastic founders by cohort of origin. Occupations are coded into eight mutually exclusive categories: village headma religious notable, landed elite (including a'yan), farmer, professional (including afandy), businessman, bureaucrat, military or police, and unclassi ed. Where the occupation variable missing, the category is imputed from the honori c title (pasha, bek, and al-sayed as landed elites; al-shaykh and al-hajj as religious notables; afandy as professional).

Figure 3.6 – Occupational Composition of Dynastic Founders, 1824–2020

Notes: Stacked bars showing the occupational composition of dynastic heirs by parliamentary cycle. Heirs are MPs whose family had already entered parliament before their rst cy
Categories and imputation rules follow Figure 3.6.

Figure 3.7 – Occupational Composition of Dynastic Heirs, 1824–2020

Period	MP	Chamber	Head of State	Party	Title / Occupation
Constitutional Monarchy					
1924	Hassan Marei	Deputies	Fouad I	—	Bek, min al-a'yan
1936–1938	Hassan Marei	Deputies	Farouk	—	Bek, min al-a'yan
1936–1952	Muhammad Amin Marei	Senate	Farouk	—	Bek
1936–1952	Mustafa Marei	Senate	Farouk	—	Bek
1942–1944	Hassan Marei	Deputies	Farouk	—	Bek, min al-a'yan
1945–1949	Sayed Ahmad Marei	Deputies	Farouk	—	—
Nasser					
1956–1958	Sayed Ahmad Marei	Assembly	Nasser	National Union	—
1964–1968	Sayed Ahmad Marei	Assembly	Nasser	ASU	—
1964–1968	Kamal Marei	Assembly	Nasser	ASU	—
1969–1971	Kamal Marei	Assembly	Nasser	ASU	—
Sadat					
1971–1976	Sayed Ahmad Marei	People's	Sadat	ASU	Muhandis
1971–1976	Kamal Marei	People's	Sadat	ASU	Muhandis
1976–1979	Sayed Ahmad Marei	People's	Sadat	NDP	Muhandis
1976–1979	Kamal Marei	People's	Sadat	NDP	—
1979–1984	Sayed Ahmad Marei	People's	Sadat	NDP	Muhandis
Mubarak					
1990–1995	Muhammad Kamal Marei	People's	Mubarak	NDP	—
1995–2000	Muhammad Kamal Marei	People's	Mubarak	NDP	—
2000–2005	Muhammad Kamal Marei	People's	Mubarak	NDP	—
2005–2010	Darwish Marei	People's	Mubarak	NDP	Rajul a'mal
2010–2011	Muhammad Kamal Marei	People's	Mubarak	NDP	—
2010–2011	Darwish Marei	People's	Mubarak	NDP	Rajul a'mal
Post-2011					
2012	Jomaa Marei	People's	SCAF	—	Muhandis
2016–2020	Muhammad Kamal Marei	Deputies	Sisi	Independent	Accountant

Source: Parliament Records and Subhi (1947). One row per MP-cycle observation. Title and occupation re ect the original Arabic-language parliamentary source. Min al-a'yan: from the rural notables. Muhandis: engineer. Rajul a'mal: businessman. ASU = Arab Socialist Union (al-Ittihad al-Ishtiraki al-Arabi). NDP = National Democratic Party (al-Hizb al-Watani al-Dimuqrati). SCAF = Supreme Council of the Armed Forces. Party af liation for the constitutional monarchy cycles and the 2012 cycle, and occupation for selected republican-era entries, are not recorde in Subhi (1947) but are available in supplementary primary sources including the Egyptian Parliamentary Archives and Springborg (1982). Missing entries marked — re ect gaps in the primary source coverage rather than absence o the attribute.

Table 3.1 – The Marei Family in Parliament, 1924–2020

Appendix A

Appendix to Chapter 1: A Century of Land Inequality in Egypt

Note: Total cultivable land area (feddans) in Egypt, broken down into private and public ownership. It corresponds to land suitable for cultivation. Uncultivated or fallow land is not counted. Source: Statistical Yearbooks and Reports on Agricultural Land Ownership.

Figure A.1 – Total Cultivable Land (in feddans) by Ownership Type, 1896–2020

Note: Total cultivable land in Egypt decomposed into private and public ownership shares. Source: Statistical Yearbooks and Reports on Agricultural Land Ownership.

Figure A.2 – Private and Public Shares of Total Cultivable Land, 1896–2020

Note: Total population, rural population, and total rural agricultural population in millions. The total rural agricultural population is de ned as the sum of landless agricultural laborers (males in agriculture) and registered landowners. Rural population data begins in 1896. Total population for 2020 is extrapolated by applying a 20% growth rate to the 2010 census; rural population for 2020 uses the 2016 gure. Sources: Population Census Reports (1850–2010) (Saleh, 2026); Statistical Yearbooks (1896–2020); mukallafat land tax registry.

Figure A.3 – Total Population, Rural Population, and Total Rural Agricultural Population, Egypt 1850–2020

Note: Male population, total male employment, landless agricultural workers (males in agriculture), and registered landowners, each expressed as a percentage of total population. The 2020 values for total population, male population, total male employment, and landless agricultural workers are extrapolated by applying a 20% growth rate to the 2010 census. Sources: Population Census Reports (1850–2010) (Saleh, 2026); Statistical Yearbooks (1896–2020); mukallafat land tax registry.

Figure A.4 – Male Population, Employment, and Landed Status as Share of Total Population, Egypt 1850–2020

Note: Landless agricultural workers (males in agriculture) as a percentage of total male employment. The 2020 values for both the numerator and denominator are extrapolated by applying a 20% growth rate to the 2010 census. Sources: Population Census Reports (1850–2010) (Saleh, 2026).

Figure A.5 – Landless Agricultural Workers as Share of Total Male Employment, Egypt 1850–2020

Note: Average land area (in feddans) is measured for private landowners, dividing total private agricultural land by total landowners. Source: Statistical Yearbooks and Reports on Agricultural Land Ownership.

Figure A.6 – Average Land Area (in feddans), 1896–2020

Note: Land-area shares held by four ownership brackets: less than 1 feddan, 1–5 feddans, 5–50 feddans, and above 50 feddans. Source: Statistical Yearbooks and Reports on Agricultural Land Ownership.

Figure A.7 – Land Concentration by Ownership Bracket, 1896–2020

Note: Agricultural land area (feddans) redistributed to bene ciaries following the implementation of successive land ceiling laws. Source: Statistical Yearbooks and Reports on Agricultural Land Ownership.

Figure A.8 – Agricultural Land Redistributed to Reform Bene ciaries, 1952–1982

Source	Area (feddans)	Families	% of redist. land	Fed./family
Agrarian reform laws				
Law 178 of 1952[a]	388831	180642	54:44	2:15
Law 127 of 1961[b]	110581	54634	15:48	2:02
Law 15 of 1963[c]	21850	10349	3:06	2:11
Law 50 of 1969[d]	32525	16914	4:55	1:92
Complementary reforms				
Waqf lands[e]	105322	49989	14:75	2:11
Hirasat lands[f]	22074	11215	3:09	1:97
Other sources[g]	33025	12726	4:62	2:60
Total redistributed land	714208	336469	100.00	2.12

Source: Author's calculations from the 1985 Report on Agricultural Land Ownership, Table 31. All redistribution channels were administered by the Agrarian Reform Authority. One feddan 0.42 hectares.

[a] Capped individual landholdings at 200 feddans.
[b] Lowered the ceiling to 100 feddans.
[c] Prohibited foreign ownership of agricultural land.
[d] Lowered the ceiling to 50 feddans.
[e] Formerly endowed religious or charitable estates, transferred to the state under Law 180 of 1952 and redistributed.
[f] Estates placed under state sequestration following the 1961 nationalisations and later released for redistribution.
[g] Residual transfers, including reclaimed state land assigned to bene ciaries.

Table A.1 – Land Redistributed and Bene ciary Families under the Agrarian Reform Authority (cumulative through 1 November 1985)

(a) Bottom 50% (p0p50)

(b) Middle 40% (p50p90)

(c) Next 9% (p90p99)

(d) Top 10% (p90p100)

(e) Top 1% (p99p100)

(f) Top 0.1% (p99.9p100)

Note: Each panel compares land-area shares under two de nitions of the population base. Scenario 1 (blue, landholders only) excludes the landless. Scenario 2A (orange, agricultural census) includes only permanent wage earners aged 15 and above as enumerated in the agricultural censuses with independent enumeration (1961, 1981, 1991, 2000, 2010). Source: Own estimations.

Figure A.9 – Land-Area Shares Under the Agricultural-Census De nition of the Landless Population

(a) Cotton Suitability (b) Wheat Suitability

Note: Each point represents a province. The x-axis shows FAO-GAEZ suitability indices for cotton (a) and wheat (b). The y-axis shows the land Gini in 1951. Provinces are coloured by region: Delta (blue), Middle Egypt (orange), Upper Egypt (red). Dashed line shows OLS t with 95% con dence band. Source: FAO-GAEZ; Statistical Yearbooks.

Figure A.10 – Agro-Climatic Suitability and Land Gini, 1951

Appendix B

Appendix to Chapter 2: Redistribution Without Inclusion?

B.0.1 MP and Family Identifiers

We matched MP names across chambers and parliamentary cycles. We created unique identifiers for each MP and family in order to trace them across cycles and chambers, defining the family name as the last name of an MP's full name. After 1952, however, the prevalence of common family names created difficulties in constructing family identifiers. To address this issue, we first created a list of common last names based on the last names of MPs in our dataset and our knowledge of Egyptian last names. This list includes: Mohamed, Ahmed, Hassan, Ismail, Ali, Abdullah, Suleiman, Ibrahim, Hussein, Mahmoud, Youssef, Omar, Othman, Mustafa, Saleh, Abdel-Rahman, El-Sayed, Khalil, Radwan, Abbas, Salem, Mikhail, Abdel-Azim, and Mahrous. For these common last names, we made two assumptions:

1. We required that MPs must share the same two, instead of one, last names.
2. We required that MPs with common last two names must appear within the same district to be considered members of the same family. Otherwise, they are assumed to belong to different families.

B.0.2 Land Reform Intensity Distribution

The gure below shows the distribution of land reform intensity across the 103 rural districts in our sample. The distribution is strongly right-skewed: most districts experienced little redistribution, while a minority of districts in the upper tail saw substantial land transfers. Dashed vertical lines mark the 25th, 50th, and 75th percentiles.

Note: The histogram shows the district-level distribution of land reform intensity, de ned as the share of cultivated land held by the Agrarian Reform Authority (ARA) in 1961. Dashed vertical lines indicate the 25th, 50th, and 75th percentiles. N = 103 districts. Source: Ministry of Agriculture (1961).

Figure B.1 – Distribution of Land Reform Intensity across Districts, 1961

B.0.3 Supplementary Results

B.0.4 Robustness Checks

Linearity Test: Binned Scatter Regressions

Figures B.3 and B.4 present binned scatter plots testing the linearity of the relationship between land redistribution intensity and changes in political outcomes between 1950–1952 and 1956–1958. Each panel plots the conditional mean of the outcome change within quantile-spaced bins, estimated using the binsreg package of Cattaneo et al. (2024). The overlaid line is a

	High Redistribution (Q4)		Low Redistribution (Q1)		Difference
Variable	Mean	SD	Mean	SD	High Low
MP Outcomes (1950–52)					
CC MP	0.729	0.448	0.848	0.361	-0.119
MP New Entry	0.525	0.504	0.532	0.502	-0.006
MP Returnee	0.203	0.406	0.316	0.468	-0.113
Family Outcomes (1950–52)					
CC Family	0.559	0.501	0.671	0.473	-0.112
Family New Entry	0.237	0.429	0.165	0.373	0.073
Family Returnee	0.322	0.471	0.506	0.503	-0.184
District Controls (1950–51)					
Cotton Yield (1950)	0.204	0.030	0.208	0.031	-0.004
Wheat Yield (1950)	0.778	0.168	0.787	0.115	-0.009
Share Area Rented (1950)	0.303	0.127	0.324	0.154	-0.020
Kuttab Schools (1951)	0.900	0.091	0.889	0.059	0.011
Observations	59		79		138

Notes: Summary statistics comparing districts in the top quartile (Q4, high redistribution) to districts in the bottom quartile (Q1, low redistribution) of eventual land redistribution intensity, evaluated in the 1950–1952 parliamentary cycle — the last cycle prior to the 1952 land reform. Difference is Q4 minus Q1. ** p<0.05, *** p<0.01.

Table B.1 – Pre-1952 Balance: High vs. Low Land Redistribution Intensity (Q4 vs. Q1)

(a) MP Returnees (b) MP-Family-Level Returning Incumbents

Notes: Each dot plots a cycle-speci c coef cient from a regression of an indicator for returnees on cycle dummies, relative to the omitted baseline of 1950–1952 (dashed vertical line). A returnee is an MP (Panel a) or MP family (Panel b) that missed at least one cycle before re-entering parliament. Con dence intervals are at the 95% level.

Figure B.2 – Family Returnees to 1950–1952, 1936–1976

	Above Median		Below Median		Difference
Variable	Mean	SD	Mean	SD	Above Below
MP Outcomes (1936–52)					
CC MP	0.842	0.365	0.867	0.340	-0.025
MP New Entry	0.426	0.495	0.431	0.496	-0.005
MP Returnee	0.416	0.493	0.437	0.496	-0.020
Family Outcomes (1936–52)					
CC Family	0.548	0.498	0.622	0.485	-0.074
Family New Entry	0.128	0.335	0.136	0.343	-0.007
Family Returnee	0.420	0.494	0.487	0.500	-0.067
District Controls (1950–51)					
Cotton Yield (1950)	0.203	0.031	0.200	0.046	0.003
Wheat Yield (1950)	0.776	0.170	0.784	0.126	-0.008
Share Area Rented (1950)	0.310	0.137	0.343	0.147	-0.033
Kuttab Schools (1951)	0.893	0.073	0.899	0.066	-0.005
Observations	538		678		1216

Notes: Summary statistics pooled across pre-reform parliamentary cycles (1936–1952, cycles 1–5), comparing districts above and below the median of eventual land redistribution intensity. Difference is Above minus Below. ** p<0.05, *** p<0.01.

Table B.2 – Pre-Reform Balance (1936–1952): Above vs. Below Median Land Redistribution Intensity

	Cyclical Turnover		New Entry		Returnees	
	(1)	(2)	(3)	(4)	(5)	(6)
	CC MP	CC Family	MP New Entry	Family New Entry	MP Returnee	Family Returnee
LR×(1936–1938)	-0.130	0.563	-0.720	-0.358	0.591	0.921
	(0.584)	(0.631)	(0.599)	(0.897)	(0.679)	(0.839)
LR×(1938–1942)	0.695	0.548	-0.523	-0.788	1.218	1.336
	(0.534)	(0.576)	(0.581)	(0.579)	(0.637)	(0.600)
LR×(1942–1944)	0.326	0.076	-0.081	-0.756	0.407	0.832
	(0.675)	(0.815)	(0.793)	(0.785)	(0.693)	(1.202)
LR×(1945–1949)	0.455	-0.135	0.097	-0.714	0.358	0.578
	(0.526)	(0.760)	(0.789)	(0.690)	(0.616)	(0.800)
LR×(1956–1958)	0.786	0.557	0.010	-0.803	0.776	1.360
	(0.432)	(0.663)	(0.460)	(0.819)	(0.395)	(1.087)
LR×(1960–1961)	1.216	0.816	0.445	-0.198	0.771	1.014
	(0.578)	(0.479)	(0.538)	(0.916)	(0.397)	(0.805)
LR×(1964–1968)	0.032	0.214	-0.818	-1.959	0.849	2.173
	(0.462)	(0.570)	(0.506)	(0.807)	(0.422)	(0.827)
LR×(1969–1971)	1.675	1.972	0.603	0.323	1.073	1.649
	(0.617)	(0.880)	(0.774)	(0.900)	(0.571)	(0.832)
LR×(1971–1976)	1.566	1.284	0.602	-0.076	0.964	1.360
	(0.474)	(0.707)	(0.606)	(0.569)	(0.519)	(0.793)
Mean(1950–52)	0.812	0.592	0.531	0.169	0.281	0.423
R^2	0.323	0.165	0.246	0.147	0.252	0.140
Observations	2,503	2,503	2,503	2,503	2,503	2,503
Districts	103	103	103	103	103	103

Notes: Event-study estimates of reform intensity interacted with parliamentary cycle indicators, relative to the baseline cycle (1950–1952). CC MP: cyclical changeover at the individual MP level. CC Family: cyclical changeover at the family level. MP New Entry: rst-time MP entry. Family New Entry: rst-time family entry. MP Returnee: MP returning after at least one cycle out. Family Returnee: family returning after at least one cycle out. All speci cations include district and parliamentary cycle xed effects. Standard errors clustered at district level in parentheses. * p<0.1, ** p<0.05, *** p<0.01

Table B.3 – Baseline Results: Cyclical Turnover, New Entry, and Returnees (Baseline: 1950–1952)

global linear t and p-values from formal linearity tests are reported in each panel.

Using Quartiles of Land Redistribution

Figures B.5 and B.6 present the quartile results for cyclical turnover. Figures B.7 and B.8 present the results for new entry. Districts are assigned to quartiles based on their share of cultivated area redistributed by 1961. The first quartile serves as the reference group.

Baseline + Controls

Tables B.4 and B.5 examine the robustness of the baseline results to the sequential addition of controls for confounding policies implemented during the same period as the land reform.

	CC MP				CC Family			
	(1) Base	(2) +Crop	(3) +Rental	(4) +Schools	(5) Base	(6) +Crop	(7) +Rental	(8) +Schools
LR×(1936–1938)	-0.130	-0.072	-0.023	-0.002	0.563	0.734	0.858	0.809
	(0.584)	(0.603)	(0.606)	(0.666)	(0.631)	(0.633)	(0.630)	(0.682)
LR×(1938–1942)	0.695	0.736	0.748	0.585	0.548	0.673	0.682	0.539
	(0.534)	(0.564)	(0.557)	(0.563)	(0.576)	(0.571)	(0.565)	(0.575)
LR×(1942–1944)	0.326	0.382	0.368	0.032	0.076	0.253	0.264	-0.199
	(0.675)	(0.664)	(0.660)	(0.629)	(0.815)	(0.784)	(0.776)	(0.786)
LR×(1945–1949)	0.455	0.530	0.532	0.228	-0.135	-0.031	-0.054	-0.545
	(0.526)	(0.508)	(0.505)	(0.431)	(0.760)	(0.697)	(0.678)	(0.586)
LR×(1956–1958)	0.786	0.867	0.921	0.758	0.557	0.699	0.705	0.591
	(0.432)	(0.437)	(0.429)	(0.407)	(0.663)	(0.615)	(0.631)	(0.659)
LR×(1960–1961)	1.216	1.286	1.312	0.948	0.816	0.960	0.964	0.881
	(0.578)	(0.596)	(0.584)	(0.557)	(0.479)	(0.472)	(0.468)	(0.496)
LR×(1964–1968)	0.032	0.052	0.123	0.341	0.214	0.295	0.374	0.387
	(0.462)	(0.471)	(0.455)	(0.509)	(0.570)	(0.555)	(0.564)	(0.637)
LR×(1969–1971)	1.675	1.768	1.788	1.637	1.972	2.106	2.119	1.859
	(0.617)	(0.602)	(0.608)	(0.540)	(0.880)	(0.839)	(0.834)	(0.772)
LR×(1971–1976)	1.566	1.606	1.697	1.465	1.284	1.391	1.479	1.255
	(0.474)	(0.474)	(0.478)	(0.461)	(0.707)	(0.665)	(0.665)	(0.702)
Mean(1950-52)	0.812	0.811	0.811	0.813	0.592	0.591	0.591	0.598
R^2	0.323	0.325	0.328	0.333	0.165	0.170	0.174	0.178
Observations	2,503	2,497	2,497	2,341	2,503	2,497	2,497	2,341
Districts	103	102	102	93	103	102	102	93

Notes: Sequential addition of controls to test robustness of main results. Base: No controls. +Crop: Adding cotton and wheat yields (1950). +Rental: Adding crop yields and land area rental share (1950). +Schools: Adding crop yields, land area rental share (1950), and share of kuttab schools (1951). All specifications include district and parliament cycle fixed effects. Standard errors clustered at district level in parentheses. * p<0.1, ** p<0.05, *** p<0.01

Table B.4 – Robustness: Baseline Cyclical Turnover Results With Controls