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# Breaking Barriers: Investigating the Effects of 100% Foreign Ownership on Business Entry in Dubai

Ahmed Shoukry Rashad

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# BREAKING BARRIERS: INVESTIGATING THE EFFECTS OF 100% FOREIGN OWNERSHIP ON BUSINESS ENTRY IN DUBAI

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**Send correspondence to:**
Ahmed Shoukry Rashad
Anwar Gargash Diplomatic Academy
ahmedshoukry@aucegypt.edu

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* Anwar Gargash Diplomatic Academy & Economic Research Forum

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## Abstract

The regulatory and institutional environment of a nation plays a critical role in shaping the level of entrepreneurship. By creating a conducive regulatory and institutional environment, governments can encourage entrepreneurial activity, leading to job creation, innovation, and economic growth. The United Arab Emirates has recently deregulated the ownership rules for more than 1,000 commercial and industrial activities, allowing full ownership of commercial companies in the UAE without requiring a partnership with a national sponsor. Before the introduction of these amendments, foreign ownership was not permitted to exceed 49% of the total assets of a company outside the free zones, with the majority stake being held by an Emirati partner. This study represents the first attempt to assess the short-term impact of the liberalization of business ownership rules on the number of newly registered firms in the UAE. The study collects unique data that covers all types of business activity in Dubai, using monthly data on the number of newly issued business licenses. We developed a difference-in-difference model with a treatment and a control group using panel data regression models. Our findings suggest that the liberalization of the ownership rules has led to a significant surge in the number of new business licenses in the sectors impacted by the liberalization policy. This early evidence suggests that relaxing the restrictions on business ownership may stimulate entrepreneurial activity and business creation in the Gulf region.



**Keywords:** business ownership, regulatory reform, entrepreneurship, United Arab Emirates, Gulf region

**JEL Classifications:** M2, L5



## ملخص

تؤدي البيئة التنظيمية والمؤسسية لدولة ما دوراً حاسماً في تشكيل مستوى تنظيم المشاريع. من خلال خلق بيئة تنظيمية ومؤسسية مواتية، يمكن للحكومات تشجيع نشاط تنظيم المشاريع، مما يؤدي إلى خلق فرص العمل والابتكار والنمو الاقتصادي. ألغت الإمارات العربية المتحدة مؤخرًا قواعد الملكية لأكثر من 1000 نشاط تجاري وصناعي، مما سمح بالملكية الكاملة للشركات التجارية في الإمارات العربية المتحدة دون الحاجة إلى شراكة مع أحد الرعاة الوطنيين. قبل إدخال هذه التعديلات، لم يكن مسموحًا للملكية الأجنبية أن تتجاوز 49٪ من إجمالي أصول شركة خارج المناطق الحرة، مع امتلاك حصة الأغلبية لشريك إماراتي. وتمثل هذه الدراسة المحاولة الأولى لتقييم الأثر القصير الأجل لتحرير قواعد ملكية الأعمال التجارية على عدد الشركات المسجلة حديثاً في الإمارات العربية المتحدة. تجمع الدراسة بيانات فريدة تغطي جميع أنواع النشاط التجاري في دبي، باستخدام بيانات شهرية عن عدد التراخيص التجارية الصادرة حديثًا. لقد طورنا نموذجًا للاختلاف في الاختلاف مع علاج ومجموعة تحكم باستخدام نماذج تراجع بيانات اللوحة. تشير النتائج التي توصلنا إليها إلى أن تحرير قواعد الملكية أدى إلى زيادة كبيرة في عدد التراخيص التجارية الجديدة في القطاعات المتأثرة بسياسة التحرير. تشير هذه الأدلة المبكرة إلى أن تخفيف القيود المفروضة على ملكية الأعمال التجارية قد يحفز نشاط ريادة الأعمال وإنشاء الأعمال في منطقة الخليج.

# I. Introduction

Private investments and entrepreneurship play a crucial role in driving economic growth and job creation (Barseghyan, 2008; Black & Strahan, 2002; Djankov, McLiesh, & Ramalho, 2006; Haltiwanger, Jarmin, & Miranda, 2008; Klapper, Laeven, & Rajan, 2006). The quality of the business environment significantly influences the level of private investments and entrepreneurial activity (Bailey & Thomas, 2017; Branstetter, Lima, Taylor, & Venâncio, 2014; Klapper et al., 2006; Messaoud & Teheni, 2014; Rostam-Afschar, 2014; Van Stel, Storey, & Thurik, 2007). Klapper and Love (2011) demonstrated that a flexible and streamlined business registration process is associated with a higher rate of formal business creation. Similarly, the World Bank has indicated a strong negative correlation between the complexity of starting a business and the number of new firms registered. Countries with efficient regulatory environments and fewer bureaucratic hurdles witness a faster establishment of new businesses.

The Middle East and North Africa (MENA) region exhibits one of the lowest rates of business entry compared to other regions (Klapper, Lewin, & Delgado, 2011b). Although firm formation in the Gulf Cooperation Council (GCC) economies, including The Kingdom of Saudi Arabia, the United Arab Emirates, Kuwait, Bahrain, Oman, and Qatar, surpasses that of non-GCC economies in the MENA region, it remains relatively low when compared internationally (Sahnoun, Keefer, Schiffbauer, Sy, & Hussain, 2014).

In order to foster a business-friendly environment, most GCC countries have established special economic zones that operate independently from domestic economies, offering liberalized regulations that permit 100 percent foreign ownership of companies, duty-free status, and simplified administrative procedures (International Monetary Fund, 2018). Notably, Oman, Kuwait, Bahrain, and the UAE have all established free trade zones, with Dubai alone hosting around 30 free zones catering to various sectors such as higher education, media production, healthcare, and finance (Dubai Department of Economic Development, 2020). However, foreign ownership outside of free zones has been limited to a maximum of 49% of total assets, with the majority stake held by an Emirati partner (Central Bank of the UAE, 2021). These restrictions on new firm creation outside of these special economic zones may act as barriers for new entrants and entrepreneurs with innovative ideas, discouraging entrepreneurs from entering the market and generating employment opportunities. It is important to note that the special economic zones were created as a means to progress toward a more liberalized economy, rather than as an end goal in themselves (International Monetary Fund, 2018, 2020; World Bank Group, 2019).

In 2021, the UAE took significant strides towards opening its economy to foreign entrepreneurs. Amendments to the commercial companies' law were introduced, allowing for 100% foreign ownership of businesses based in the UAE without the need for a partnership with a national sponsor. The regulatory reform aims to enhance the competitiveness of the business environment by instilling greater confidence in foreign investors, expanding investment opportunities for expatriates, attracting fresh capital, fostering economic diversification, and ultimately increasing employment opportunities throughout the economy.

This shift in ownership dynamics has the potential to impact new firm creation and promote a more competitive business environment through various mechanisms. The reform empowers foreign entrepreneurs seeking to initiate or expand formal businesses, granting them full control over the operation without the requirement of partner approval. This reduction in bureaucratic hurdles minimizes the risk of disputes and delays in decision-making processes. It also enhances investor confidence. Additionally, the flexible ownership rules contribute to a reduction in the overall cost of doing business, as some partners may have previously exploited the ownership constraints to extract rents without making substantial contributions to business activity.

Studies evaluating the business environment and regulatory changes in the GCC are limited (Gani, 2011; I. Maghyereh & Awartani, 2014; Naidu, Nyarko, & Wang, 2014). However, there is one notable study that explores the effects of the 2011 labor market reforms in the UAE, which relaxed regulations on labor mobility among expatriate workers (Naidu et al., 2014). Prior to the reform, each migrant worker was bound to a single employer for the contract duration, and at the contract's expiration, the worker either had to renew the contract with the initial employer or obtain written permission to join another employer. The 2011 reform abolished the requirement for permission from the previous employer. The study's findings indicated that increased labor mobility led to higher earnings for incumbent migrants and improved worker retention for firms. The study’s results support the hypothesis that less rigid regulations can have positive outcomes.

This study aims to capitalize on the recent regulatory changes by presenting early empirical evidence regarding the immediate repercussions of the enhanced ownership rules in the UAE. Therefore, this study represents the initial endeavor to assess the impact of regulatory changes on business entry rates in Dubai, considering it serves as the primary business hub in the region and possesses the necessary data. The analysis measures business entry by examining the number of newly issued business licenses before and after the implementation of ownership liberalization rules, utilizing panel data.

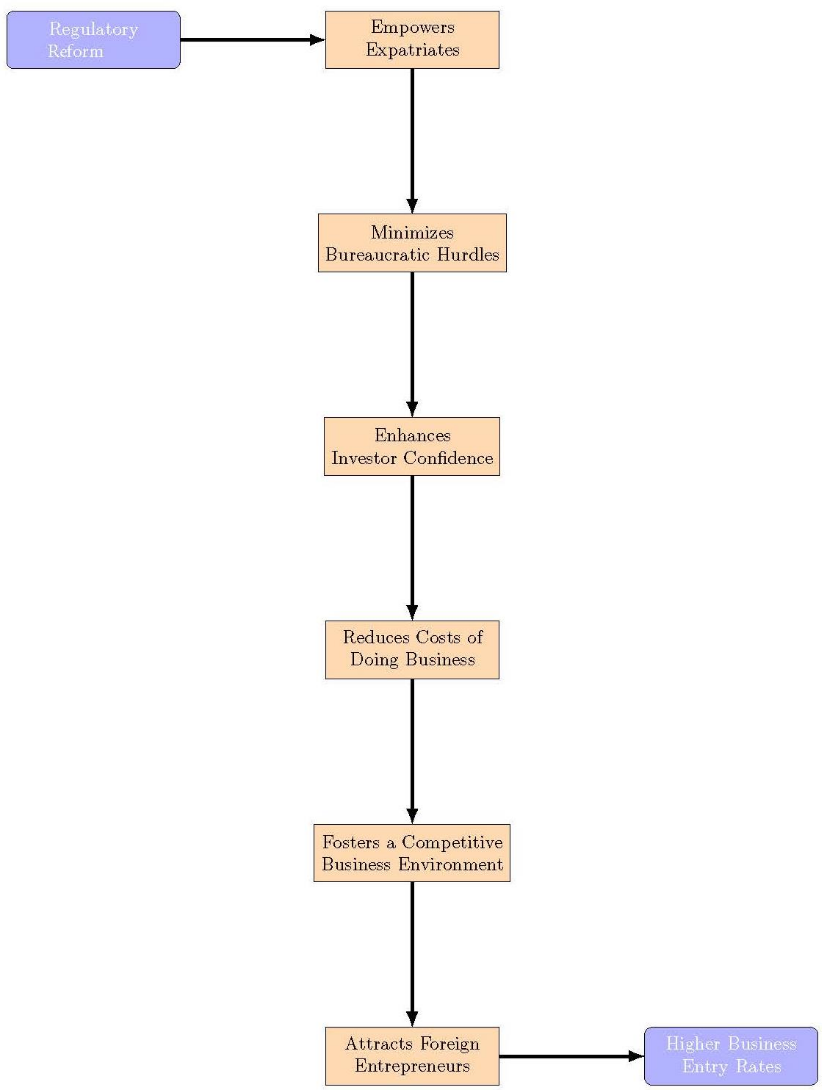
This study carries significant policy implications for governments in developing countries as well as the IMF. The liberalization policy forms a fundamental component of IMF structural adjustment programs, yet it has not been thoroughly examined, particularly in the MENA region. This study aims to bridge this gap by contributing to the ongoing discourse on the impact of liberalization policies on economic activity. The findings of this study can offer valuable policy guidance not only to other GCC countries but also to developing nations contemplating the reduction of requirements on foreign investments.

## Conceptual Framework

A business environment with fewer restrictions and barriers encourages innovation and the creation of new firms, contributing to economic growth and job opportunities (Chambers & Munemo, 2019; Divanbeigi & Ramalho, 2015; Kirkpatrick, 2014; O'Reilly, 2022). This section explores the potential pathways linking the recent implementation of 100% ownership of commercial companies in the UAE to its impact on business entry rates and the creation of new firms. One can postulate three pathways through which regulatory reform could facilitate firms' creation. These include (i) empowerment of foreign entrepreneurs, (ii) streamlined administrative processes, (iii) enhanced investor confidence, and (iv) a lower cost of doing business.

The previous ownership restrictions might led to concerns among investors regarding control and decision-making authority. By allowing full ownership, the recent reform provides a more transparent and predictable regulatory environment, instilling greater trust and confidence among foreign investors. Foreign investors can now exercise greater control and make independent decisions regarding their business ventures. Secondly, the regulatory reform's impact on business entry and firm creation is also anticipated through the pathway of streamlined administrative processes and reduced bureaucratic hurdles. The elimination or reduction of bureaucratic hurdles is expected to encourage more individuals to enter the market, as the ease and efficiency of starting a business increase. This, in turn, is likely to stimulate higher business entry rates and the formation of new firms. Thirdly, the reform's impact on the cost of doing business represents another crucial pathway influencing business entry and firm creation in the UAE. With the removal of ownership constraints, entrepreneurs can allocate resources more efficiently and effectively. Previously, ownership restrictions often led to additional costs, such as those associated with partnering with a local sponsor or maintaining complex ownership structures. By reducing these costs, the reform is expected to incentivize more individuals to enter the market.

Figure 1: Pathways Connecting the Ownership Law to Firms Creation




## II. Background:

**III.I. Contextual Framework Shaping Foreign Investments in the GCC Region**The GCC countries have traditionally relied on the public sector as the primary source of employment for their citizens and as a driver of economic growth (International Monetary Fund, 2020). However, the private sector remains heavily dependent on public spending and relies largely on expatriate workers. Despite expatriates constituting the majority of the population in most GCC countries, their contribution to saving, investment, and growth remains limited. This can be attributed to a highly regulated business environment that stifles innovative entrepreneurs, restrictive labor mobility, and prolonged residency requirements that impede long-term planning (International Monetary Fund, 2019; World Bank Group, 2019).

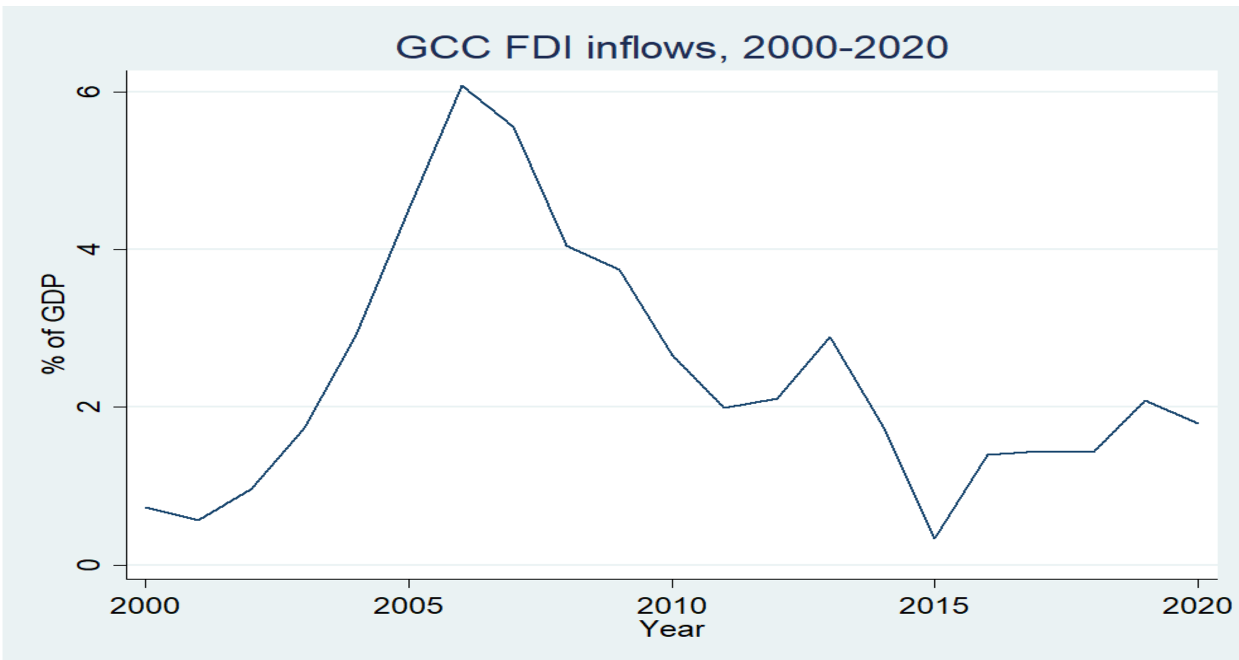
The GCC countries have demonstrated a relatively open stance towards trade; however, in terms of private foreign investments and entrepreneurship, the level of openness is comparatively lower. Despite policy efforts and reforms aimed at enhancing governance quality and adopting International Financial Reporting Standards, FDI flows to the GCC region have experienced a decline in recent years (Siriopoulos, Tsagkanos, Svingou, & Daskalopoulos, 2021), as illustrated in Figure 1. Foreign investments in the region have primarily concentrated on the real estate, petroleum, and chemicals sectors. Recent research conducted by the IMF highlights the significant gap between the level of foreign investments in the GCC economies and their potential. This gap is largely due to regulatory constraints imposed on foreign investors and expatriate entrepreneurs, hindering their ability to fully leverage opportunities in these economies (International Monetary Fund, 2018).

To address the underperformance of FDI, both the World Bank and the IMF have emphasized the importance of implementing investment-friendly policies in the GCC countries. This includes removing stringent requirements on company ownership for foreign investors outside of free zones and reducing entry barriers (International Monetary Fund, 2018, 2020; Shaukat Khan & Onder, 2018; World Bank Group, 2019).

Considering the demographic reality characterized by an increasing share of young population and the transition to clean energy, it is crucial to prioritize long-standing structural issues that discourage foreign investments. Good progress has been made in enhancing the business environment and promote competitiveness. For example, several GCC countries have recently implemented policies aimed at attracting highly skilled expatriates, promoting labor market flexibility, and encouraging foreign investments. Saudi Arabia, Oman and Qatar have relaxed restrictions on the movement of expatriate labor, thereby enhancing labor market flexibility

(International Monetary Fund, 2019). Bahrain has introduced digital residency services for expatriate workers and new employment and training portal. Qatar has introduced a minimum wage and abolished the system of the sponsorship system for foreign workers. Similarly, the UAE has introduced various regulatory changes, including the provision of long-term residency to investors and individuals with exceptional talents and eased restrictions on family sponsorship, allowing foreigners to sponsor their family members if their salary exceeds a minimum threshold.

Figure 2: GCC FDI Inflows

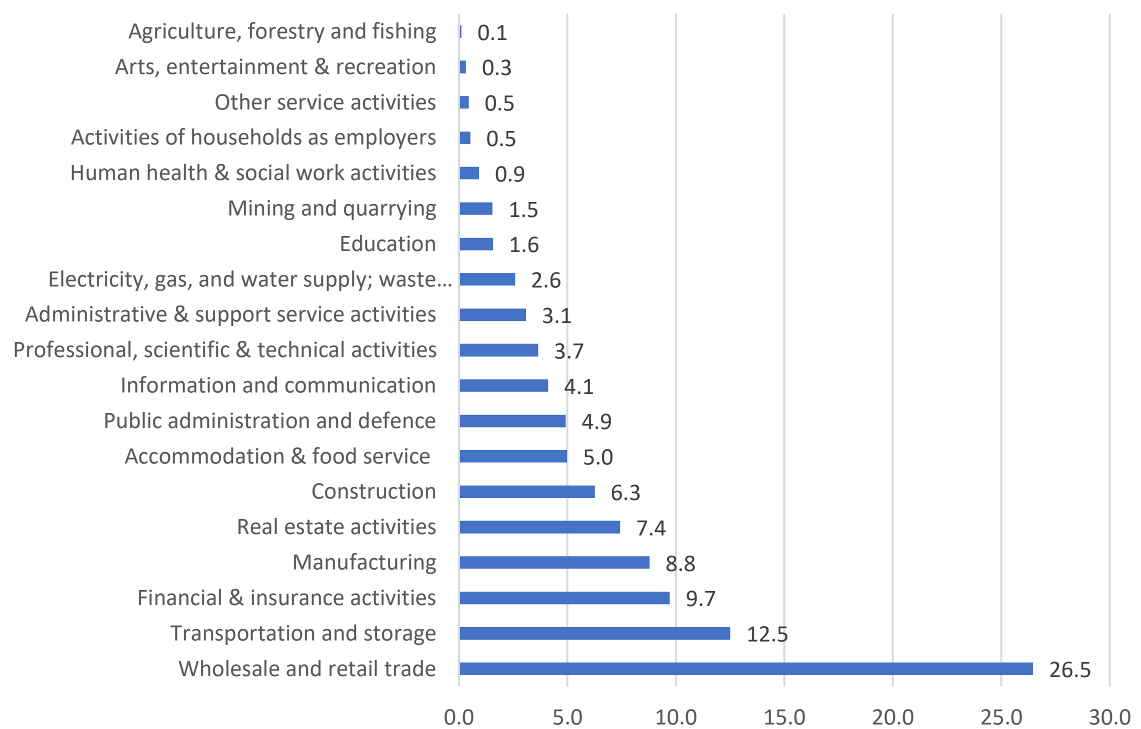



## III.II. Overview of the Dubai Economy

This section presents a concise overview of Dubai's economy. As the second largest economy in the UAE, following Abu Dhabi, Dubai stands out as the most diversified and competitive economy in the GCC region. Functioning as a pivotal trade hub, it serves as a vital link connecting the Arabian Gulf with India and Africa. Foreign trade plays a crucial role in driving Dubai's economic growth, as evidenced by its strong reliance on international trade (Dubai Department of Economic Development, 2019, 2020). The value of trade flows encompassing exports, re-exports, and imports in merchandise trade surpasses three times Dubai's GDP, showcasing the significance of its trading activities.

In 2019, Dubai's GDP, measured at constant prices, reached approximately US$ 111.4 billion, with a population size of 3.3 million, predominantly comprised of expatriates (Dubai Statistics Center, 2020a, 2020b; Oxford Business Group, 2019). Examining the sectoral contribution to Dubai's GDP, as depicted in Figure 1, reveals that seven key sectors played a substantial role, collectively accounting for 76.2% of Dubai's total GDP in 2019. These sectors encompass wholesale and retail trade (26.5% of GDP), transport and storage (12.5% of GDP), financial and insurance activities (9.7% of GDP), manufacturing (8.8% of GDP), real estate activities (7.4% of GDP), construction (6.3% of GDP), and accommodation and food services (5% of GDP). This sectoral composition underscores Dubai's success in diversifying its economy beyond hydrocarbons. However, it is important to note that external demand for Dubai's exports can still be influenced by fluctuations in oil demand (Al Faris & Soto, 2016).

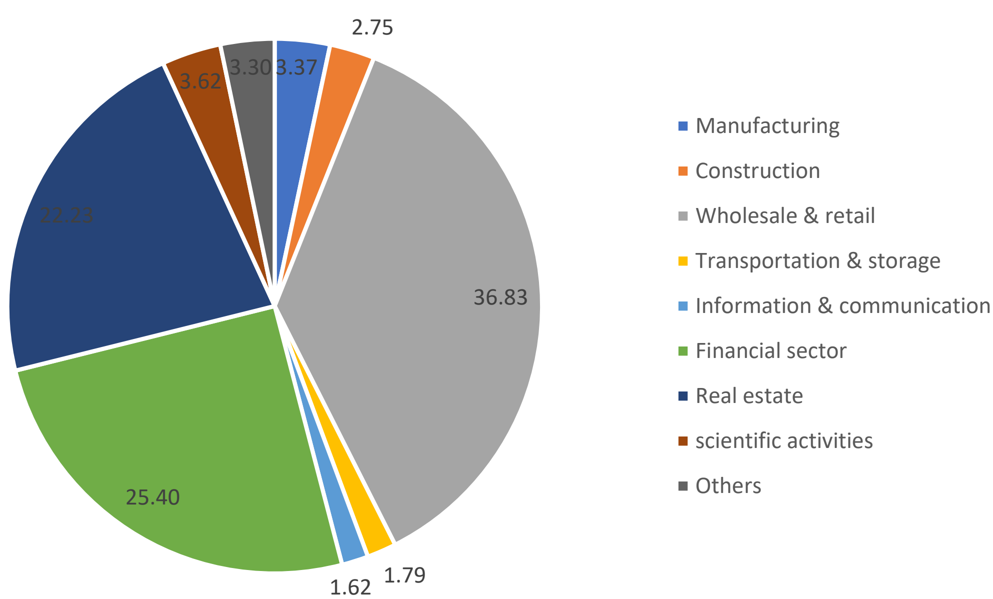
Figure 3: Sectors Contribution % to Dubai Real GDP




Attracting FDI has been a prominent policy objective for the Dubai. The proportion of FDI stock relative to Dubai's GDP serves as a valuable indicator of both the substantial contribution of FDI to the economy and the level of its openness. Dubai surpasses the average of advanced economies, with FDI stock accounting for 44% of its GDP (United Nations Conference on Trade and Development (UNCTAD), 2018).

However, when comparing Dubai to Singapore, an economy sharing several key characteristics such as expatriate openness, population size, robust infrastructure, and a thriving trade hub, it becomes evident that Singapore's FDI stock is three times higher than its GDP. This observation emphasizes the potential for further growth in Dubai's FDI inflows (Figure 3 provides a breakdown of Dubai's FDI stock across different economic sectors). Notably, the majority of FDI stock in Dubai is concentrated in three sectors: wholesale and retail trade, the financial sector, and real estate.

Figure 4: Composition of Dubai FDI stock




**III.III. The New Law**

To accelerate the transition away from fossil fuels and enhance the business environment's appeal, the UAE announced in 2018 its intention to permit foreigners to own up to 100 percent of onshore companies, easing the previous limit of 49 percent. However, the announced changes were not put into effect until 2021. In that year, the UAE Government implemented amendments to the Federal Commercial Companies Law, allowing foreign investors to have full ownership (100 percent) of various business activities. Notably, these new rules regarding full foreign ownership do not necessitate any modifications to the licensing procedures or requirements for conducting business. Furthermore, there are no additional fees, guarantees, or capital requirements associated with attaining complete foreign ownership. By keeping other factors such as procedures, requirements, and licensing costs constant, we can more easily analyze the causal impact of the liberalization policy without the interference of other variables that might complicate the identification strategy.

Effective from June 1, 2021, the new ownership rules have been implemented for 1,065 types of business activities, encompassing both commercial and industrial sectors, with the exception of two specific economic activities. The first category comprises economic activities that possess a strategic impact, which are limited to seven sectors: security, defense, and military activities; banks, exchange houses, and finance companies; insurance; currency printing; communications; Haj and Omra services; and Quran centers. These sectors are considered strategically important and are thus excluded from the ownership reform.

Furthermore, another category of business activities that remain unaffected by the reform are professional activities. In these cases, foreign investors are still required to collaborate with a UAE national in order to fulfill the necessary judicial formalities for starting a business. Professional business licenses enable individuals to establish enterprises based on their intellectual or artistic talent. Examples of professional activities, such as carpentry, artisanship, consultancy services, printing and publishing, beauty salons, and repair services, continue to operate under the previous ownership regulations. This exemption is primarily due to legal considerations, as professional licenses fall under the purview of the Civil Transactions Law, while commercial and industrial licenses are governed by the Commercial Companies Law. Policymakers decided to initiate amendments to the Commercial Companies Law first, with intentions to extend changes to the Civil Transactions Law in subsequent stages.

Therefore, the new flexible ownership rules now apply to approximately 40% of the various types of economic activities. The variation in ownership regulations over time and across different business activities provides a potential instrument for identifying the causal effects of liberalization policies on the establishment of new firms and the entry of new businesses into the market.

## III. Data and Identification Strategy

### IV.I. Data

The analysis of this study is based on unique data collected from the Business Registration and Licensing Sector at the Dubai Department of Economy and Tourism, Government of Dubai. The outcome variable we focus on is the number of newly issued licenses in Dubai. Obtaining a license is typically a mandatory requirement for starting a business legally. As such, the number of new licenses can serve as a proxy for actual business formations and economic dynamism. It reflects the intentions and actions of entrepreneurs who are investing resources and efforts into establishing and formalizing their enterprises. Thus, by tracking the number of new licenses, we can capture the level of entrepreneurial activity, as higher rates of new license issuance indicate a thriving entrepreneurial ecosystem, with entrepreneurs confident in the market opportunities and potential returns. The number of new business licenses is likely to be sensitive to policy changes.

We have constructed a balanced panel dataset that encompasses the number of newly issued business licenses, categorized by the type of business activity. Issuing a business license from the Business Registration and Licensing Sector is a requirement for investors aiming to establish a new firm or expand their existing business.

Our dataset comprises monthly data covering the period from February 2021 to October 2021, encompassing all types of economic activities operating in Dubai. Overall, our dataset consists of 14,193 (=9 month×1577 economic activity) data points. The implementation of the new liberalization rules, which serve as the intervention in our analysis, commenced on June 1st, 2021. The official announcement of the implementation date was made on May 24th, 2021, approximately a week prior to the new rules taking effect. Out of the 1,577 business activities considered, 787 activities were affected by the flexible rules, while the remaining 790 activities continued to adhere to the same regulations.

### IV.II. Identification Strategy

We employ a difference-in-differences (DiD) approach to estimate the impact of changes in company registration requirements. DiD is a widely-used method for evaluating the effects of regulatory policy changes (Card & Krueger, 1993; Galiani, Gertler, & Schargrodsky, 2005; Wahba

& Assaad, 2017). For example, Wahba and Assaad (2017) utilized DiD to investigate the effect of more flexible labor regulations on the state of labor informality in Egypt.

We compared two periods: one before and one after the change in the law. Our analysis focused on the number of new business licenses across two groups of economic activities. The first group, known as the treatment group, included economic activities that were previously not allowed for foreign ownership but became permitted in June 2021. The second group, referred to as the control group, comprised economic activities that remained subject to ownership restrictions even after the change in the Commercial Companies Law.

Instead of directly comparing the number of new licenses between the treatment and control groups after the policy change, we employed DiD. This approach compares the trends in the treatment and control groups, capturing the impact of the law by examining the difference in the growth rates during the two periods.

The recent amendments to the commercial law have granted full ownership rights for 1,065 out of a total of 2,643 commercial and industrial activities. However, within the operational business activities, which amount to approximately 1,577, a total of 787 have been impacted by the new ownership rules, while the remaining 790 activities remain unaffected.

To isolate the impact of the new policy and mitigate the influence of other confounding variables, such as business cycle effects, we have incorporated a control group into our analysis. This control group allows us to account for time-varying factors that may affect the business environment, as both the treatment and control groups are subject to the same external conditions and other factors that could influence the number of new licenses over time.

Additionally, by comparing the same group before and after the policy change, we are able to control for time-invariant factors within that group. This DiD approach eliminates potential sources of bias and enables us to isolate the true impact of the policy change on business entry.

We run a panel-data linear model to evaluate the impact of the liberalization policy on the treated business activity. Our outcome variable is the number of newly issued licenses during the study period. Our model can be presented as follows:

$$\mathrm{Y}_i = \beta_0 + \beta_1 d_1 + \beta_2 T + \beta_3 (d_1 \times T) + \beta_4 trend + + u \quad (1)$$

The outcome $Y_i$ (the number of new licenses) is modeled by the above equation. The dummy variable (d1) is an indicator of whether the observation is from before or after the policy change, so it equals one right after the imposition of the new regulations (post-policy change) and zeroes otherwise. Another dummy variable (T) is an indicator of whether a license is affected by the new policy (the treatment group); therefore, it equals one for the treatment group and zeroes for the comparison group. The coefficient of interest is $\beta_3$ as it measures the effect of the liberalization policy (the treatment effect). We add a dummy variable for each type of business activity to control for its fixed effect. We also added the time trend (trend) to control for the secular trend.

## IV. Results

Figure 5 illustrates the trend in the total number of new licenses issued in Dubai before and after the implementation of the new law. As depicted in the figure, there is a noticeable surge in the overall number of licenses immediately following the introduction of the new ownership rules. This increase is expected to have a positive impact on public revenue. However, it is important to note that Figure 5 alone does not allow us to attribute this rise solely to the treatment effect, as there may be other factors at play.

To address this, it is necessary to compare the treatment group with the control group both before and after the intervention. This comparative analysis is crucial in order to account for other potential factors and accurately assess the impact of the new ownership rules.

Figure 5: The Number of Commercial and Industrial Licenses


Figure 6 effectively illustrates the means of the number of new licenses over time for both the control and treatment groups. The left-hand side graph presents the observed-means, displaying the average outcome for each group at different time points. On the right-hand side, the linear-trends graph incorporates the difference in trends before and after the intervention period. Both graphs serve as diagnostics for assessing the parallel-trends assumption. Prior to the regulatory reform, it is crucial for the treatment and control groups to exhibit parallel movement. If this assumption is violated, it raises concerns regarding the validity of the parallel-trends assumption.

The figure indicates that these two groups were moving in sync and following a parallel trajectory prior to the implementation of the regulatory reform. This alignment in their trends satisfies the parallel-trend assumption required for DiD. Furthermore, the linear trend model on the right side of the figure provides an additional perspective on the parallel trend assumption by utilizing a common time reference point. The chart indicates that the two lines were nearly identical before the intervention.

To further verify the parallel trend assumption, we conduct a statistical test by including variables representing time trends for the two groups before and after the policy intervention. The linear trends model estimates whether the coefficient for the difference in linear trends before the policy intervention is statistically significant. If the coefficient is close to zero, it indicates that the parallel trends assumption holds.

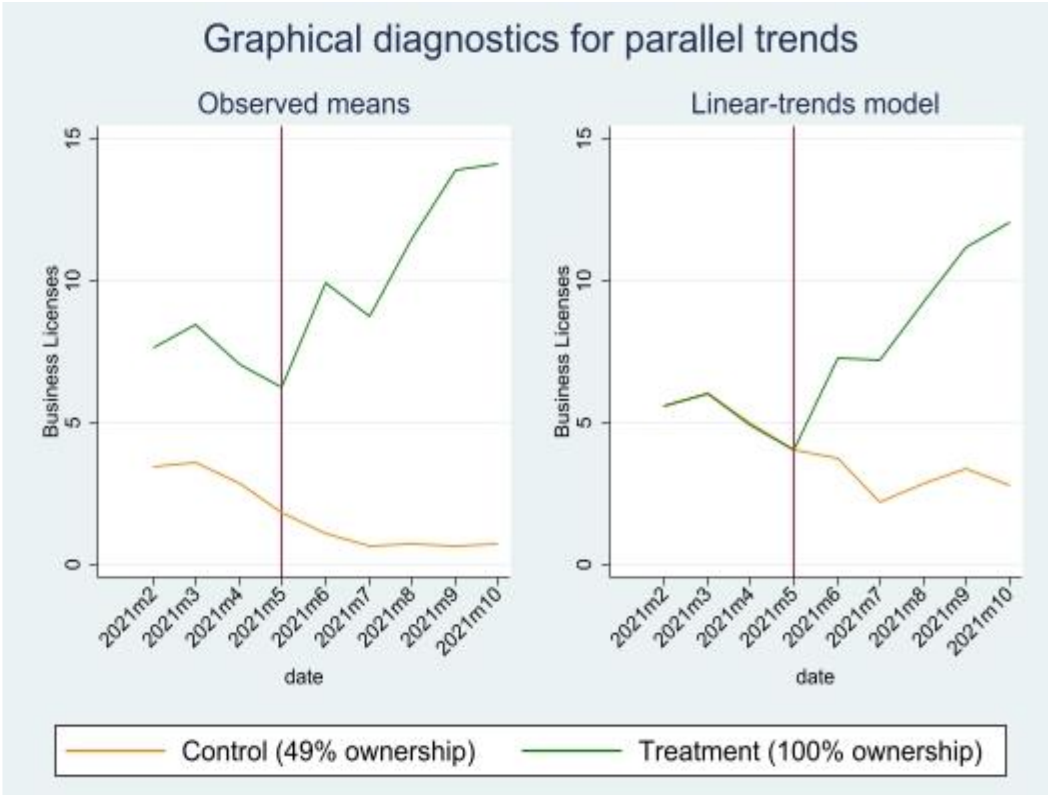
The results of the parallel trend test indicate that there is insufficient evidence to reject the null hypothesis (prob > F = 0.95) of parallel trends in this case. This strengthens our confidence in the validity of the parallel trend assumption for our analysis.

Figure 6 shows a notable spike in the number of new licenses for the group affected by the new ownership rules, while the control group continues to follow its pre-existing trend in the post-intervention period, unaffected by the policy change. This pattern strongly suggests that the policy intervention played a significant role in driving the substantial increase in the number of new licenses observed after the policy change.

We also employ Granger Causality Test to verify that the treatment and control groups do not change their behavior in anticipation of the regulatory reform. To examine this assumption, the Granger test incorporates dummy variables representing each pretreatment-treatment period for the treated observations. The test yields that we could not reject the null hypothesis that claims no effect in anticipation of treatment.

To enhance the reliability of our findings, we conduct regression analyses for two distinct time periods. The first period spans from March 2021 to July 2021, enabling us to capture the immediate effects of the regulatory reform. This focused timeframe allows us to examine any immediate changes in the variables of interest. On the other hand, the second period, extending from February 2021 to October 2021, provides a broader perspective, encompassing a longer duration and enabling us to assess the longer-term impacts of the reform. To account for potential clustering, we employed robust standard errors adjusted for the 1,577 business clusters, representing different types of business activities. This robust approach strengthens the validity of our results.

Figure 6: Parallel Trends




Column 1 of Table 1 presents the regression results for the DiD model for the period between March to end of July, as described in the preceding section. The coefficient $\beta_3$ captures the effect of the flexible ownership rules, and it is both positive and highly significant at the 1% level of significance in the two models. This implies that, on average, the monthly number of licenses in the treatment group has increased by approximately 4 licenses compared to if the new flexible ownership regulations had not been implemented. This finding holds economic significance, given that the average number of licenses across different types of business activities within the treatment group is around 6 license per month (see Figure 6) and the average number increases to 10 licenses after the intervention. After expanding the time window (February to October), the coefficient of interest gets even larger while maintaining its statistical significance at 1%. These findings support our hypothesis that the implementation of flexible regulations has had a positive impact on new firm creation, deviating from the common trend observed prior to the policy change.

Table 1: DiD regression results

| | Diff-in-Diff (March-July) | Diff-in-Diff (Feb-Oct) |
|---|---|---|
| $\beta_3$ | 4.91 | 6.44 |

| | | |
|---|---|---|
| Robust SE | 0.4 | 0.53 |
| t-stat | 12.3 | 11.98 |
| N | 7,885 | 14,193 |

Note: ATET estimate are adjusted for panel effects and time effects.

As a robustness check, we conducted a placebo test in our analysis. This test involved applying DiD to a fake treatment group, which we know was not actually affected by the regulatory reform. By comparing the professional licenses (control group) with the property management business (the fake treatment group), we aimed to assess whether the regulatory reform had any positive impact on the fake treatment group, which should not have been influenced by the reform as classified as business with strategic impact.

Table 2: Placebo test

| | Diff-in-Diff (March-July) |
|---|---|
| $\beta_3$ | -1.3 |
| Robust SE | 0.2 |
| t-stat | -6..3 |
| N | 3,164 |

The results of the placebo test, presented in Table 2, confirm our expectations that the regulatory reform had no positive impact on the fake treatment group. This supports the validity of our analysis and strengthens our confidence in attributing the observed positive effects to the actual treatment group, rather than any external factors or unrelated changes.

## V. Concluding Remarks

Previous studies consistently demonstrate that regulatory reforms aimed at simplifying the process of starting a business are associated with an increase in new business formation (Chambers & Munemo, 2019; Djankov, La Porta, Lopez-de-Silanes, & Shleifer, 2002; Freund & Bolaky, 2008; Xu, 2011) and overlay rigid regulation are associated with negative outcomes (Audretsch, Keilbach, & Lehmann, 2006; Klapper, Lewin, & Delgado, 2011a; Motta, Oviedo, & Santini, 2010). The GCC countries have traditionally placed restrictions on foreign ownership in various sectors of their economies. These restrictions have often hindered foreign investors' ability to establish businesses or acquire controlling stakes in local companies.

In order to diversify its economy and reducing the dependence on oil revenue, the UAE has implemented a series of structural reform policies. In 2021, the UAE took a significant step in promoting foreign investment and entrepreneurship by deregulating the ownership rules for over 1,000 commercial and industrial activities. This move allows foreign investors to have full ownership and control of businesses operating in these sectors. Few studies have explored the impact of the liberalization of ownership regulations that enable foreign investors to own companies. To the best of our knowledge, this study represents the first attempt to evaluate the impact of liberalization of business ownership rules on business activity in the UAE.

To identify the causal impact of the deregulation policy, we implemented a DiD approach. This approach allowed us to compare the effects of the liberalization policy by creating control and treatment groups, thus controlling for other factors that could potentially influence the business environment. By exempting certain business activities from the new regulations, we were able to establish a suitable comparison group to assess the true impact of the policy change. This method enabled us to isolate the specific effects of the ownership reform policy from other confounding variables.

Our DiD model revealed compelling results, demonstrating a significant surge in the number of new licenses in Dubai following the implementation of the new ownership rules. This finding provides strong evidence that the liberalization policy had a substantial positive effect on business activity and the creation of new businesses.

The positive impact of the liberalization policy on business activity can be attributed to several plausible explanations. The new improved rules have provided greater autonomy to foreign investors in running businesses. This, in turn, has likely attracted new investors from outside the UAE who view the country as a favorable destination for investment. For instance, the recent exodus of investors from Hong Kong and China due to the Zero-Covid policy has led them to seek alternative Asian destinations such as Singapore and Dubai, with the new friendly ownership rules potentially playing a role in their decision-making. Furthermore, the new rules have the potential to reduce the cost of doing business and mitigate the risk of disputes between business partners. By providing a more conducive environment for entrepreneurship, the rules offer increased incentives for individuals to engage in business activities. Additionally, the surge in business licenses will have a positive impact on public revenue, further bolstering the economic benefits derived from the regulatory reform.

Based on our findings, it is evident that the early evidence on the short-term consequences of the liberalization of business ownership rules provides strong support for the positive impact on business formation. This supports the hypothesis that implementing simplified regulations on firm formation stimulates private investments and entrepreneurial activity. These findings carry significant implications for policymaking, emphasizing the importance of establishing an enabling ecosystem that promotes business growth and attracts both domestic and international investors.

Moving forward, future studies can delve into the long-term consequences of the new ownership rules to ascertain whether the effects of the liberalization policy are transitory or sustainable over time. Additionally, exploring the impact of the reform policy on the productivity of firms and special economic zones would provide valuable insights for policymakers.

It is important to acknowledge the limitations of this study, namely the focus on the number of new licenses without available data on the corresponding value of investments associated with these licenses. However, despite this limitation, it is reasonable to conclude that the relaxed ownership rules have invigorated the business landscape, resulting in increased activity and a heightened sense of dynamism within the market.

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