

# Assessing the performance of the offshore regime using the Tunisian Statistical Business Register



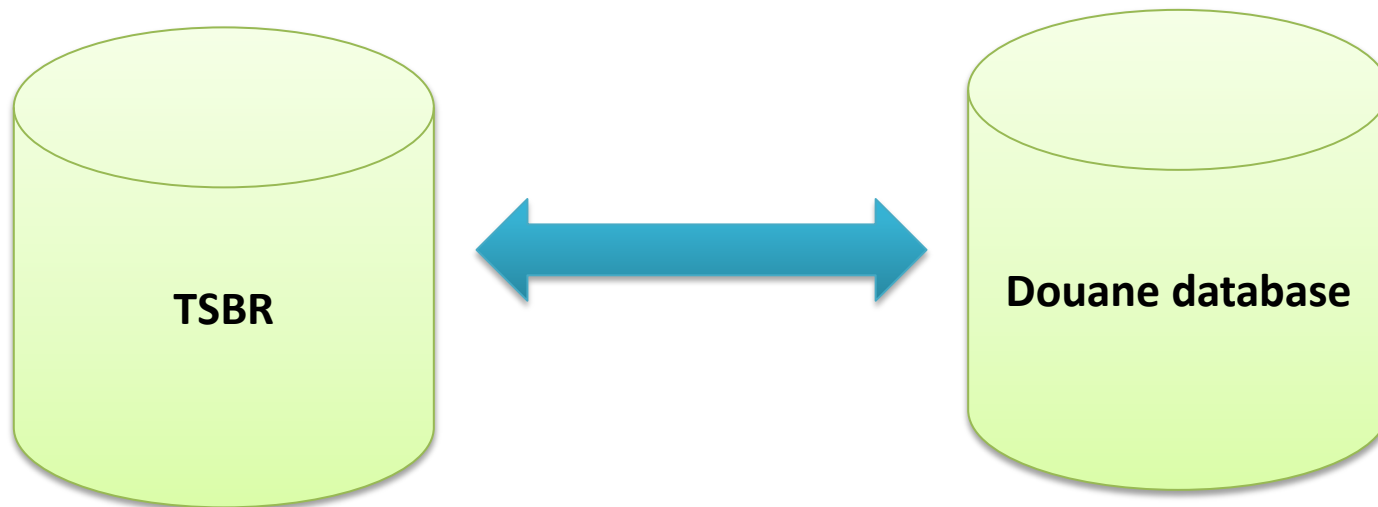
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# Introduction

**The central aim of this article is to examine the offshore regime in Tunisia :**

- its contribution :** turnover, wages, job creation, import, export
- and compare its** productivity ,profitability and survival with onshore firms



# Plan

## **Part 1 : Management of TSBR**

Principal sources : administrative and surveys

Douane File : Match with SBR and uses

Contents : units and variables

## **Part 2 : Study of performance of offshore regime**

descriptive statistics

Premium comparaison

Survival comparaison

# Principal sources

Source	Principal variables	Frequency	Coverage	Enterprise Identifier	Classifications
DGI (legal unit, local unit)	Identification, activities, turnover, benefits	quarterly	700 thousand	Fiscal code	Fiscal classifications : address, activity, legal form
CNSS  (Employer , independant and salaries)	Identification, activity, salaried employee , wages	quarterly	160 thousand	Employer code	CNSS classifications : activity, address
	Identification	quarterly	450 thousand	Independant code	proffession
	Identification	quarterly	1100 thousand	Salarie code- employer code	
<b>Douane</b>	<b>Identification, products, country, values and weights</b>	<b>annual</b>	<b>8000 exporter  15000 importer</b>	<b>Fiscal code</b>	<b>NSH product classification</b>
Economic surveys	Address, activity, Activity status	Annual, quinquennial	Samples	SBR identifier	Statistical classifications

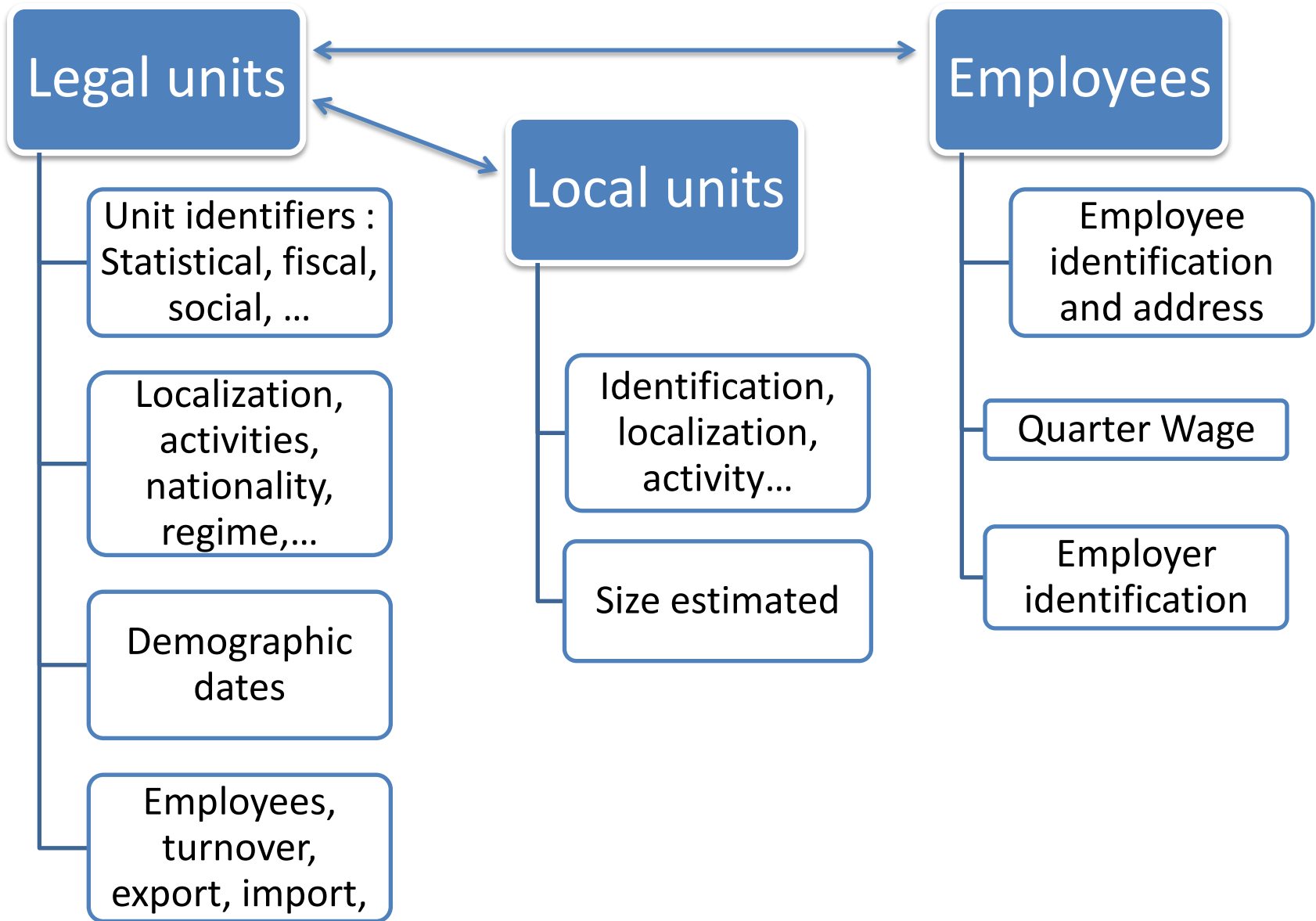
# Douane file : match with SBR and uses

- Match :

Before 2010	2010 and after
absence of common identifier (match by names, address, activity, ...)	fiscal code as common identifier

- Uses :
  - Check and improve activity codification
  - Enrich signals of activity
  - Check and improve turnover registered in fiscal source
  - Add import and export values and weights variables in SBR

# Contents



# Part 2: Study of performance of offshore regime

- *Descriptive statistics*
- *Econometric specifications and results*

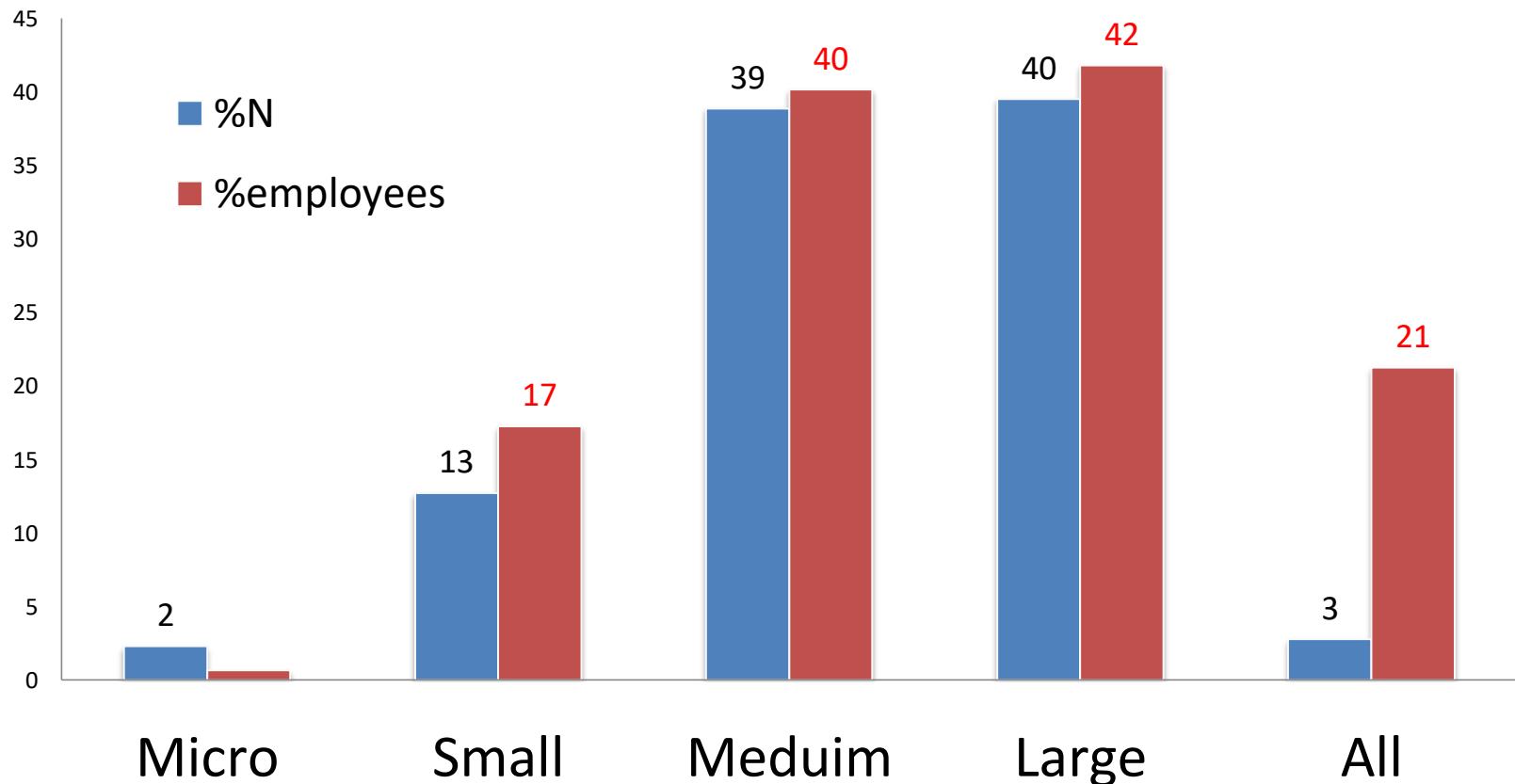
# Share of offshore firms, by sector

	%Enterprises	%Employees
Agriculture, forestry and fishing	3	6
Mining and quarrying	5	2
Manufacture of foodproducts, beverages and tobaccoproducts	3	6
<b>Manufacture of textiles, clothing, leather and footwear</b>	25	<b>81</b>
Manufacture of wood and paperproducts, and printing	6	9
Manufacture of computer, electronic, electricalequipment, machinery and opticalproducts	36	<b>75</b>
Manufacture of transport equipment	38	<b>88</b>
otherindustry	3	11
Wholesale and retailtrade, repair of motorvehicles and motorcycles	1	2
<b>Information and communication</b>	8	<b>20</b>
Professional, scientific, technical,	14	14
Administration and <b>support service activities</b>	6	<b>15</b>
Otheractivity	0	1
<b>Total</b>	<b>3</b>	<b>21</b>



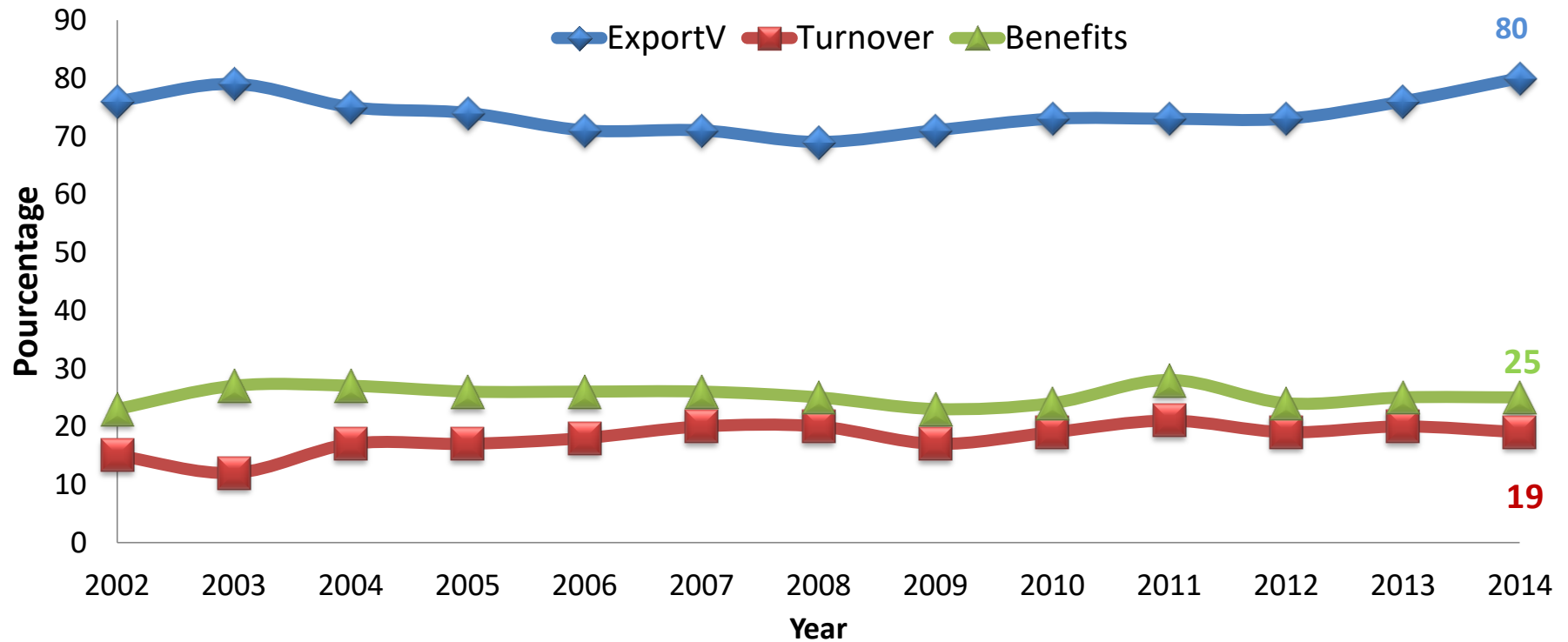
# Share of offshore firms by size

Figure : Average share of offshore firms (% total number and % employment)  
by size, 2002-2014

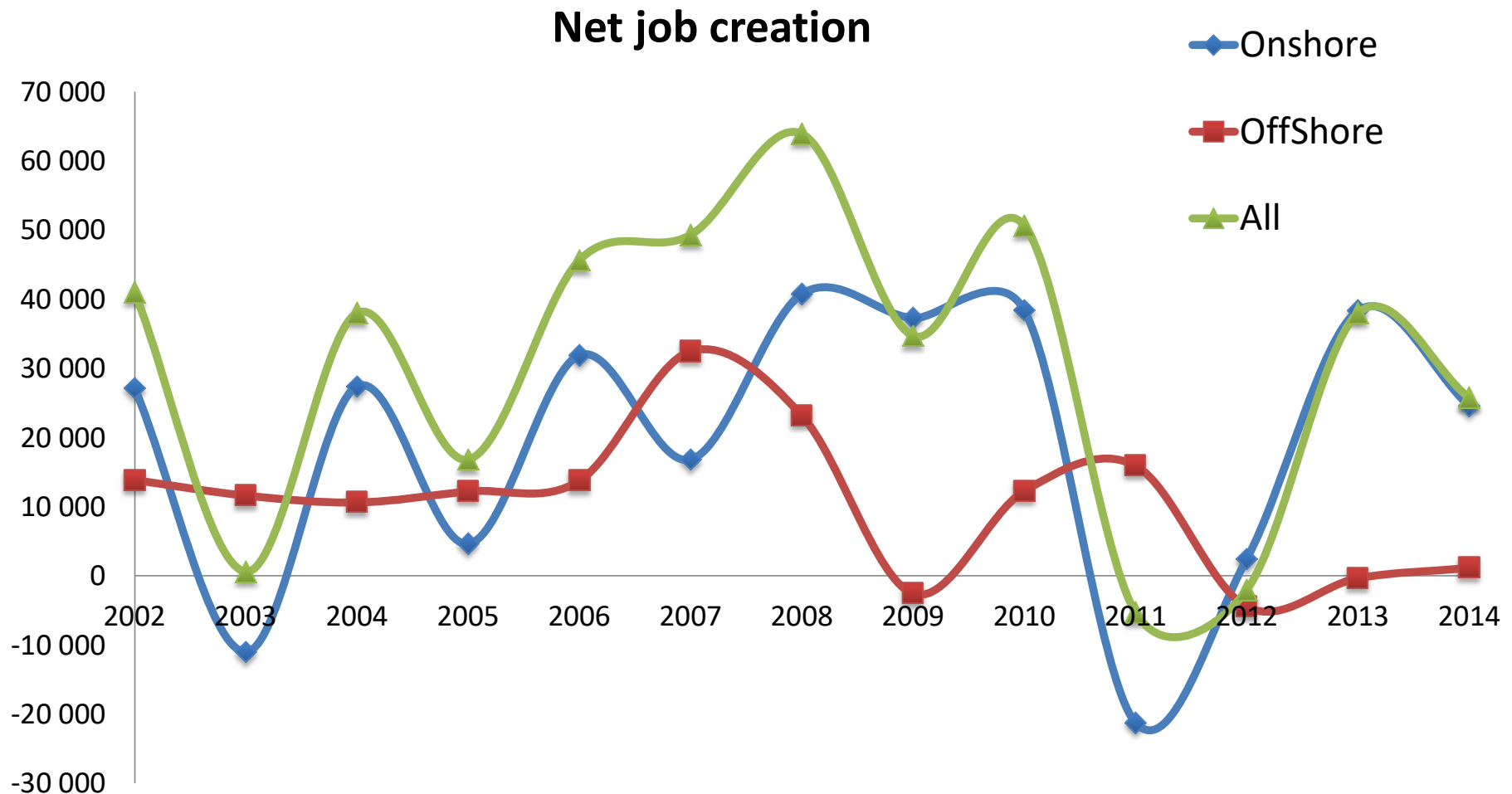


# Share of offshore firms

Figure : Share of offshore firms in total exports, turnover and benefits



# Net job creation by regime



# Premium econometric specification

Trade premium is percentage differences in firm characteristics between exporting and nonexporting companies

$$\ln X_i = \alpha_0 + \beta TS_i + \gamma V_i + u_i + \varepsilon_j + \varepsilon_i$$

- $X_{it}$  can be average **wage per worker**, **net job creation**, **turnover per worker** or **profits per worker**.
- $S_{it}$  : is a trade status (offshore exporter and importer or offshore exporter and non-importer).
- $V_{it}$  : size , age and activity
- $U_{it}$  : year

# Premium results

**Table : Offshore Premium OLS Regressions, All Categories of Firms**

	2002	2003	2004	2005	2006	2007
LnTurnover	25.09*** (0.0431)	44.2*** (0.0418)	37.75*** (0.0395)	49.4*** (0.0384)	46.19*** (0.0362)	40.61*** (0.0341)
Ln Productivity	21.33*** (0.0397)	43.32*** (0.039)	40.87*** (0.0382)	50.62*** (0.0368)	47.76*** (0.0351)	41.56*** (0.0334)
LnAverage Wage	-10.01*** (0.0156)	-7.88*** (0.0146)	-5.08*** (0.0153)	-5.56*** (0.015)	-2.66* (0.0142)	-4.3*** (0.0133)
LnGross Job Creation	36.23*** (0.019)	35.46*** (0.0181)	26.37*** (0.0183)	28.52*** (0.0177)	27.39*** (0.0172)	43.79*** (0.0165)
Ln Profitability	156.71*** (0.0487)	185.41*** (0.0477)	195.48*** (0.0472)	213.4*** (0.0456)	218.47*** (0.0438)	216.75*** (0.0414)
Observations	45381	44777	46131	46695	48263	50653

	2008	2009	2010	2011	2012	2013	2014
LnTurnover	28.88*** (0.0322)	40.16*** (0.0271)	48.38*** (0.0262)	48.88*** (0.0261)	37.76*** (0.0258)	44.37*** (0.0256)	38.52*** (0.0249)
Ln Productivity	29.98*** (0.0312)	43.46*** (0.0266)	51.14*** (0.0259)	51.8*** (0.0258)	40.14*** (0.0256)	46.62*** (0.0254)	40.15*** (0.0247)
LnAverage Wage	0.01 (0.0124)	3.81*** (0.0117)	5.21*** (0.0108)	6.18*** (0.0105)	5.21*** (0.0106)	5.18*** (0.01)	5.68*** (0.0098)
LnGross Job Creation	37.86*** (0.0157)	14.18*** (0.0149)	30.42*** (0.0143)	27.41*** (0.0142)	11*** (0.0135)	14.66*** (0.0132)	14.97*** (0.0124)
Ln Profitability	167.5*** (0.0398)	175.68*** (0.0367)	177.64*** (0.0362)	209.65*** (0.037)	176.92*** (0.0364)	189.4*** (0.0362)	147.82*** (0.0354)
Observations	52820	54425	56289	55877	56618	58288	60702

# Survival Analysis specification

- we propose to investigate whether financial incentives offered to offshore firms influence their survival.

$$Pr (Exit_{i,t+1}=1)=\Phi(\delta_0+\rho TS_{it}+\tau TS_{it}\times Age>9_{it}+\sigma Vit++ u_i + \varepsilon_j + \varepsilon_i + \varepsilon_t$$

# Survival results

**Table : Exit Probit Estimations**

	All firms	Trade Status Exporter	Importer and Exporter
Exit at t+1	(8a)	(8b)	(8c)
Intercept	0.2884*** (0.0067)	0.1991*** (0.0353)	0.1642*** (0.0301)
Trade Status	0.0374*** (0.0021)	0.041*** (0.0036)	0.0343*** (0.0028)
Trade Status×Age>9	0.0352*** (0.0028)	0.0087* (0.0048)	0.0238*** (0.0026)
Tax Evasion	0.022*** (0.0018)	0.0395*** (0.006)	-0.0253*** (0.0023)
Ln Employees	-0.0644*** (0.0004)	-0.0546*** (0.0012)	-0.0305*** (0.0007)
Observations	676 919	55 505	64 868
R2	0.0449	0.0499	0.0515

Notes: Foreign ownership dummy, governorate, sector, firms and year fixed effects are included. \*\*\*p<0.01; \*\* p<0.05; \* p<0.1.

# ASSESSING THE PERFORMANCE OF THE OFFSHORE REGIME



<http://erf.org.eg/wp-content/uploads/2017/06/1118.pdf>



**Thank you !**

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