Business regulations and growth

Rita Ramalho
Program manager, Doing Business

Raian Divanbeigi
Economist, DECSI

What do we know about growth, firm creation and regulations

- Djankov, McLiesh, and Ramalho (2006) – simpler business regulations are associated with higher long term growth – results from cross-country analysis and instrumental variables.

- Eifert (2007) – in general better performance in DB indicators is linked to higher investment and growth – results from panel data.

- Klapper and Love (2011) – costs, days and procedures required to start a business predict the number of new firm registrations – results from panel data.

DB indicators cover firms throughout their life cycle

At start-up
- Starting a business

In getting financing
- Getting credit
- Protecting minority investors

In daily operations
- Paying taxes
- Trading across borders

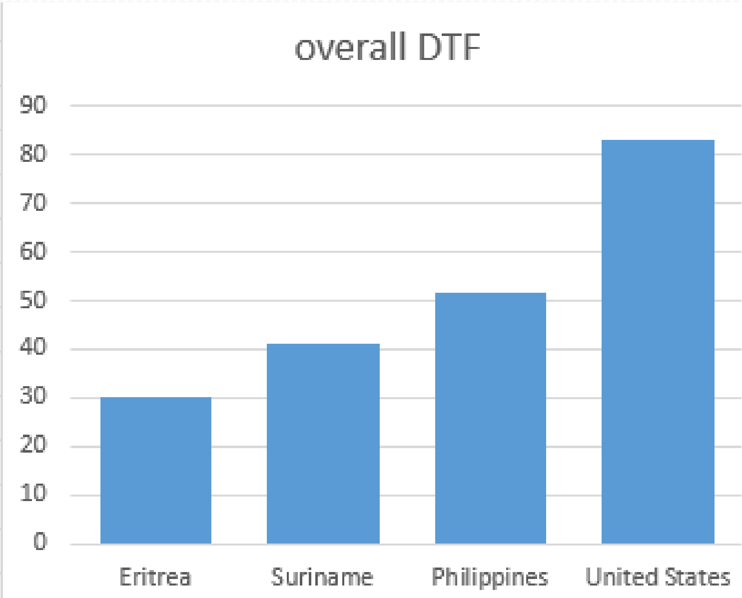
In getting a location
- Dealing with construction permits
- Getting electricity
- Registering property

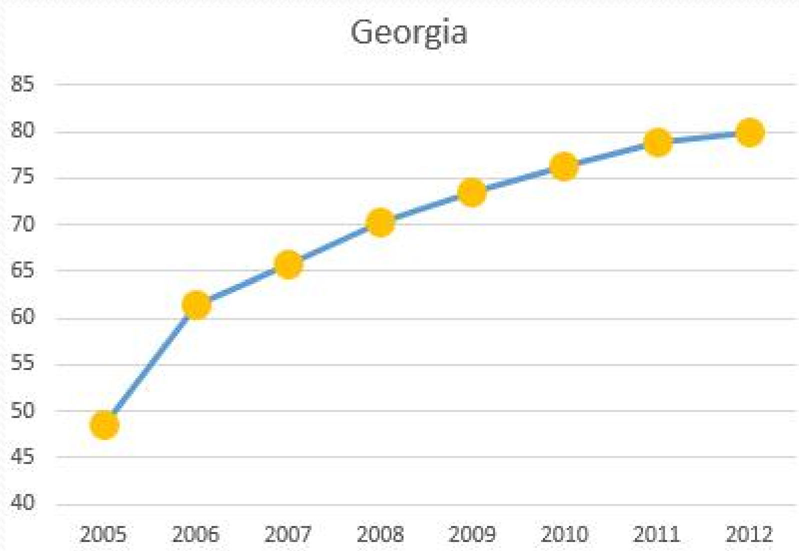
When things go wrong
- Enforcing contracts
- Resolving insolvency

Distance to frontier (DTF)

- The DTF measures the *average distance from the best regulatory performance*. First, sub-indicator data is normalized between 0 and 100. Then scores at the sub-indicator level are averaged within each indicator. Indicator-level DTF scores are also averaged to obtain the overall DTF.

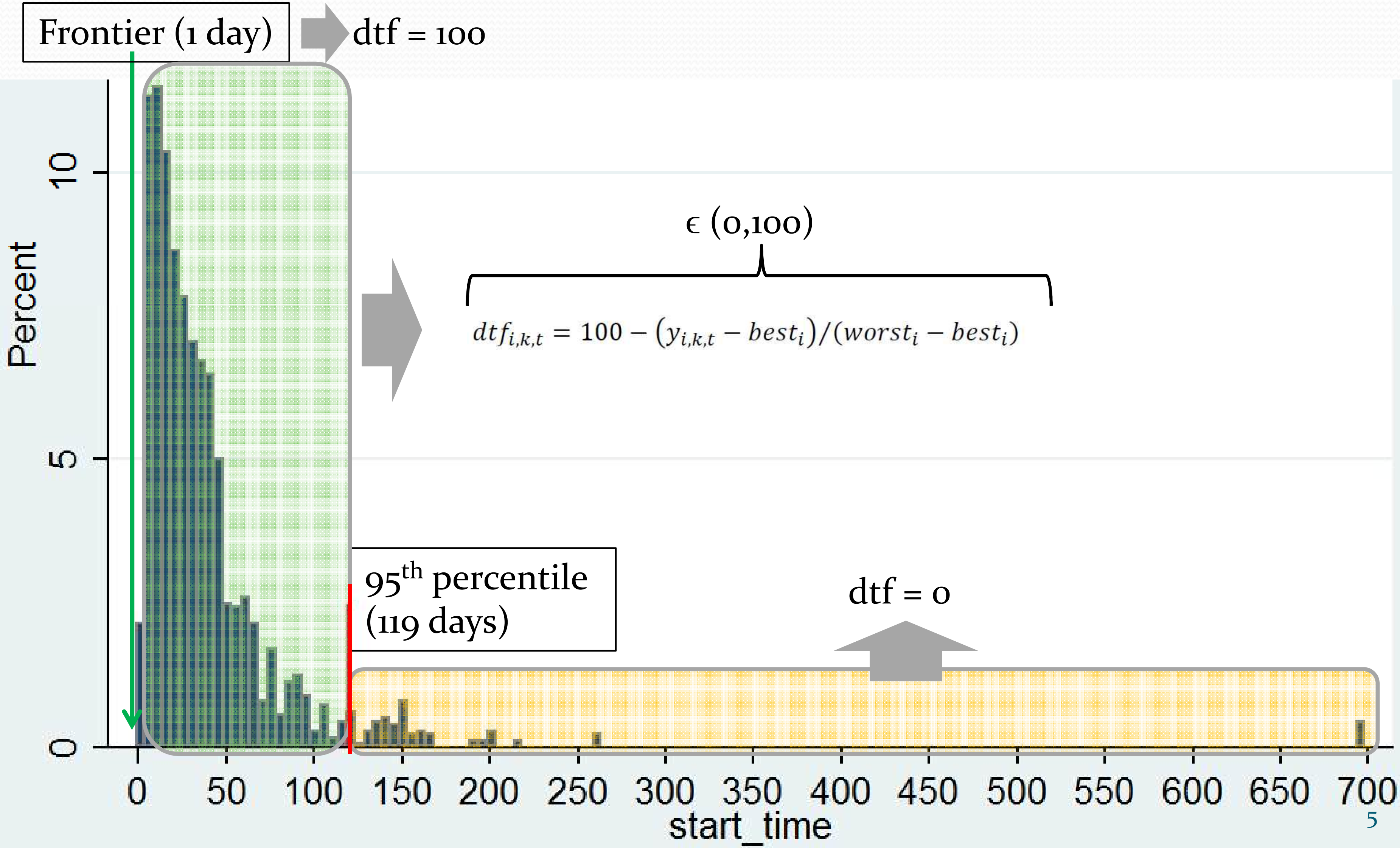
most efficient regulations





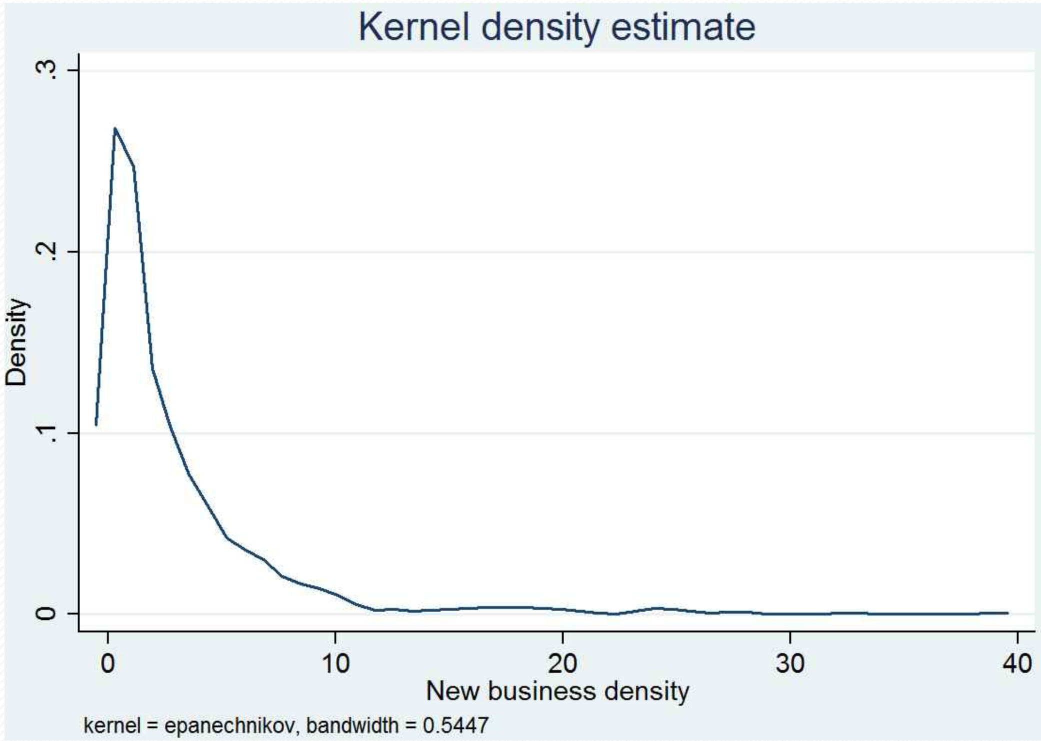
least efficient regulations

DTF (time to start a business)



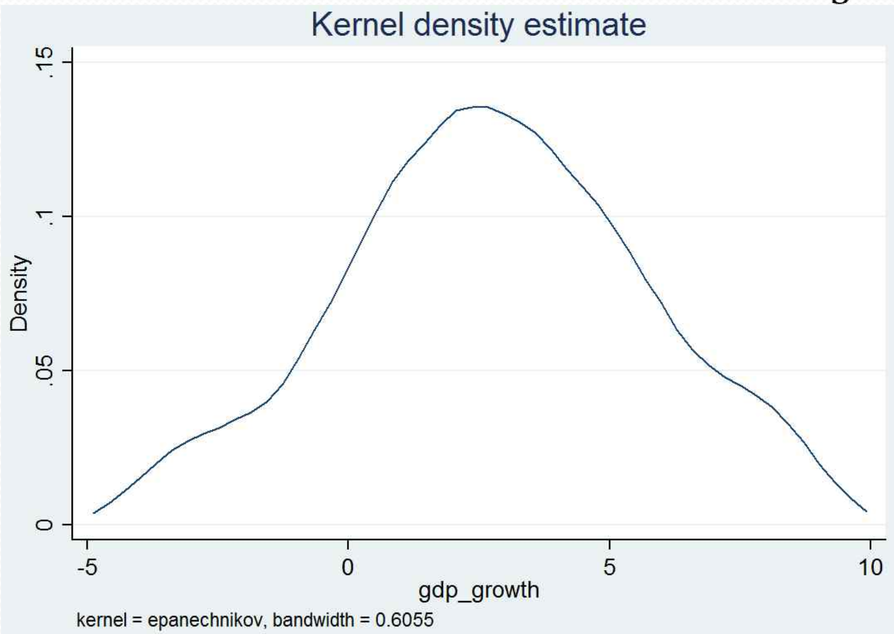
Outcome variables

- **New business density** (Entrepreneurship database).
- New business registrations per 1,000 people aged 15-64. Annual data collected from 130 company registrars.



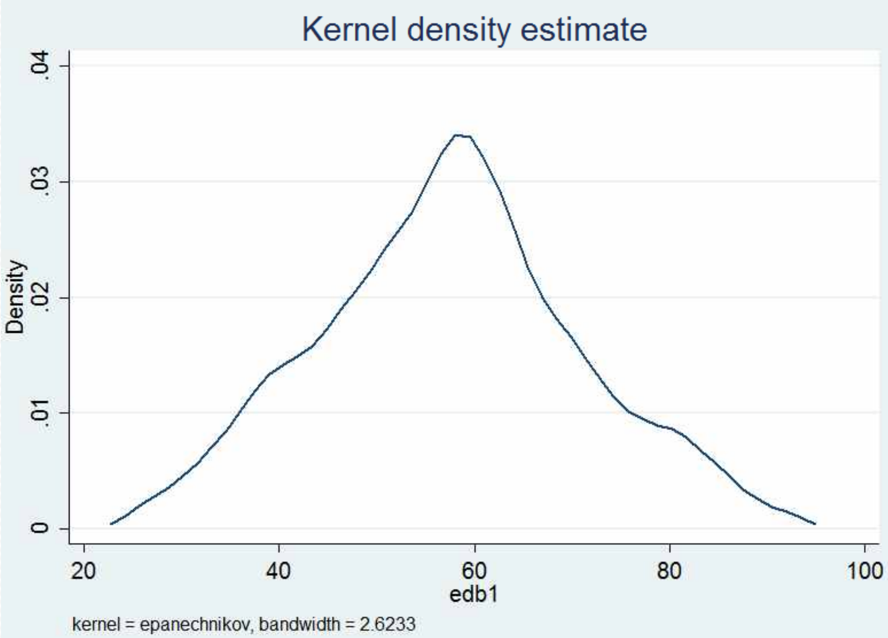
Outcome variables (2)

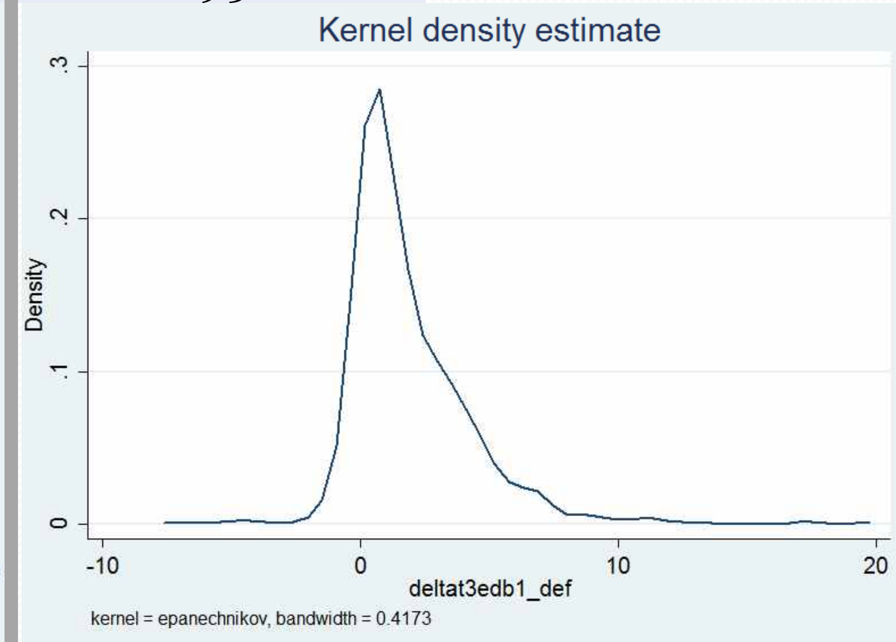
- **GDP per capita annual growth** (WDI).
- Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population.
- 3-span moving average: $\bar{Y}_t = \frac{(Y_{t-1}+Y_t+Y_{t+1})}{3}$



Explanatory variables

	Distance to frontier (2005-12)	delta (2007-12)
Mean	57.5	1.8
SD	13.3	2.3
Min	25.4	-7.2
Max	92.3	19.3

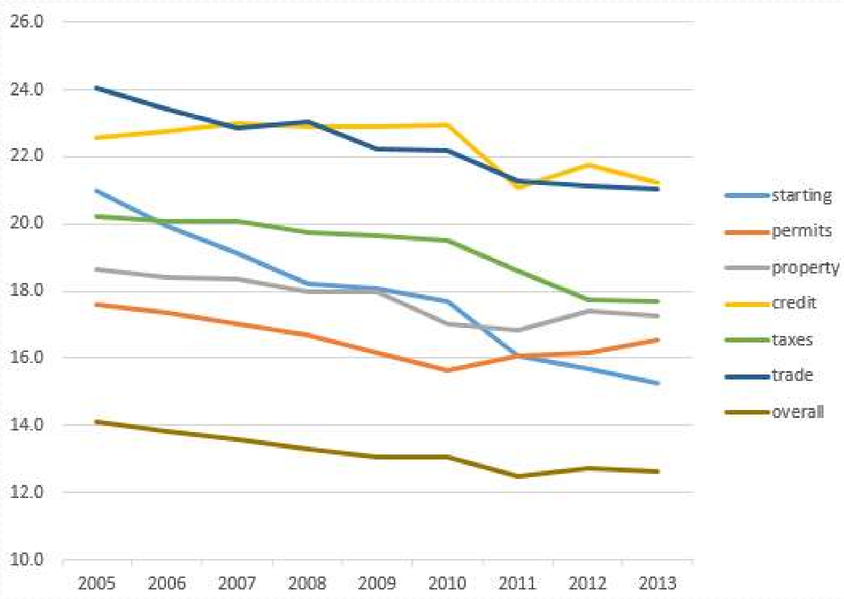




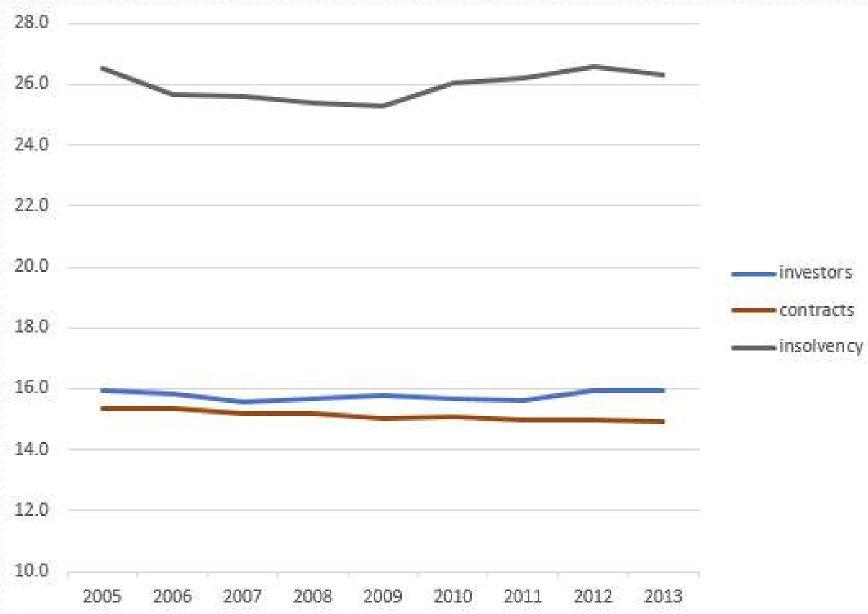
Explanatory variables (2)

- DTF **standard deviation** by indicator:

Converging:



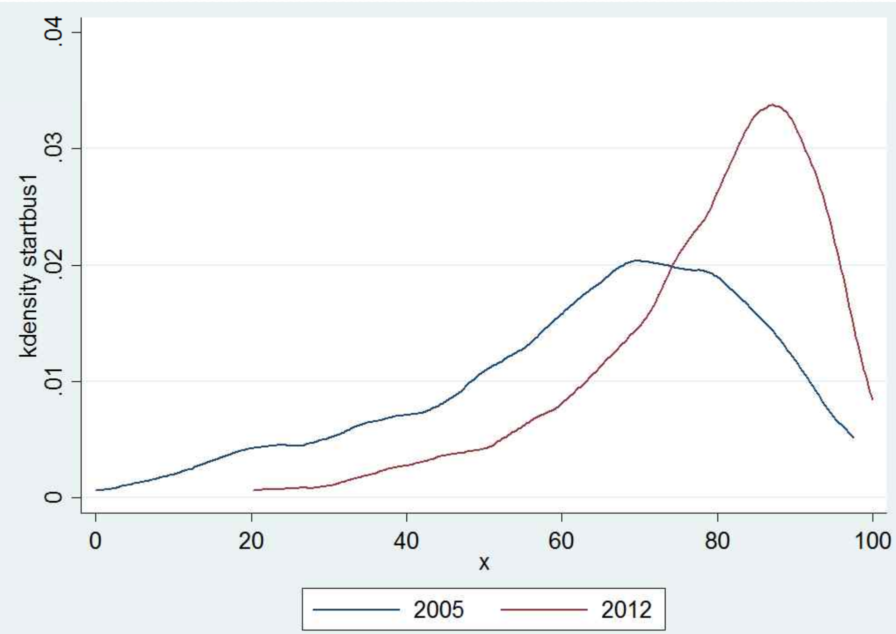
Not converging:



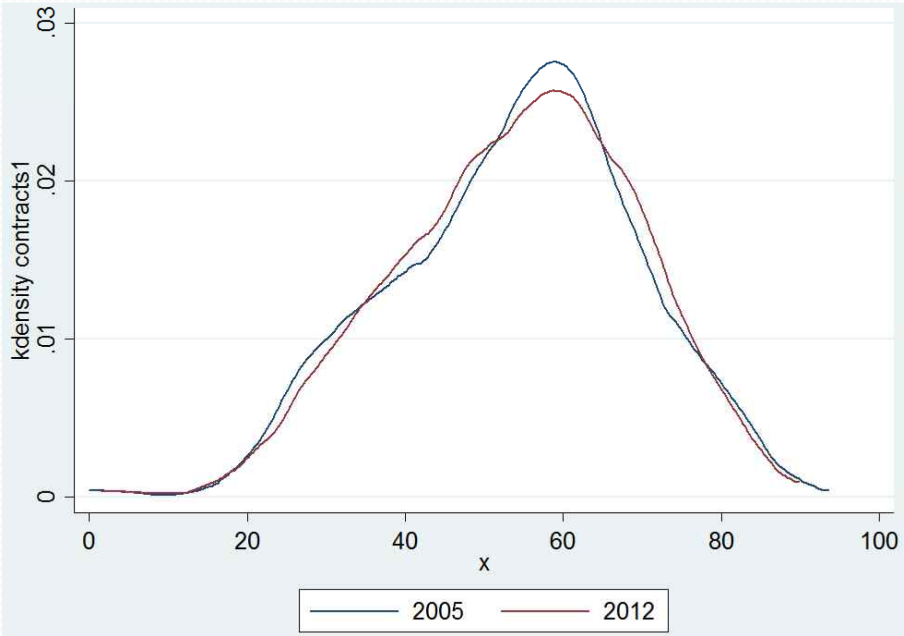
Explanatory variables (3)

- DTF **Kernel density** by indicator:

Converging (SB):



Not converging (EC):



Hypothesis

- Better business regulations are associated with more firm creation
  - We test the link between the level of business regulations and the number of new firms created per year
  - We focus on the overall business environment, but also on specific sets of regulations

- Improvements in business regulations are associated with higher growth rates
  - We test the link between changes in business regulations and average growth rate over 3 years
  - We focus on the overall business environment, but also on specific sets of regulations

Econometric models

- New business density VS DTF

  Fixed-effects linear multiple regression:

$$y_{it} = x'_{it}\beta + c_i + v_t + \varepsilon_{it}$$

- Growth VS delta-DTF

  Arellano-Bond Dynamic Panel GMM estimator:

  - Controls for unobserved cross-country heterogeneity (large-N small-T)

  - Controls for correlation between reforms and the business cycle

$$y_{it} = \alpha_1 y_{it-1} + \ldots + \alpha_p y_{it-p} + x'_{it}\beta + c_i + v_t + \varepsilon_{it}$$

- Controls:

Country risk (ICRG), Corruption (CPI), Government consumption, Trade (X and M), Political freedom and civil rights (FH), Rents from natural resources, Credit to the private sector, FDI inflows.

Results on firm creation

- Being 10 percentage points closer to the overall regulatory frontier is associated with 6.2 more businesses registered every 10,000 persons in working age (20% of the average).
- Comprehensive reforms that combine Legal and TM topics have higher impact (6.2) than reforms on Legal (5.1) or TM (not significant) reforms.
- Entry/Exit regulations have a significant impact (3.1), however not as strong as more comprehensive reforms have.
- Countries that provide more credit to the private sector (as % of GDP) and that are more "free" have higher new business density on average.

Results on growth

- The top quartile for overall regulatory improvement grows on average **0.8%** more than the bottom one (~30% of mean growth).
- A 1 percentage point improvement in the DTF for the indicators measuring the strength of legal institutions is associated with an increase of **0.09%** in annual growth rate.
- A 1 percentage point improvement in the DTF for entry and exit is associated with a **0.05%** increase in annual growth rate.
- A 1 percentage point improvement in the DTF for credit markets is associated with an increase of **0.13%** in annual growth rate.
- Countries that are more open to trade and "stable" grow more on average.

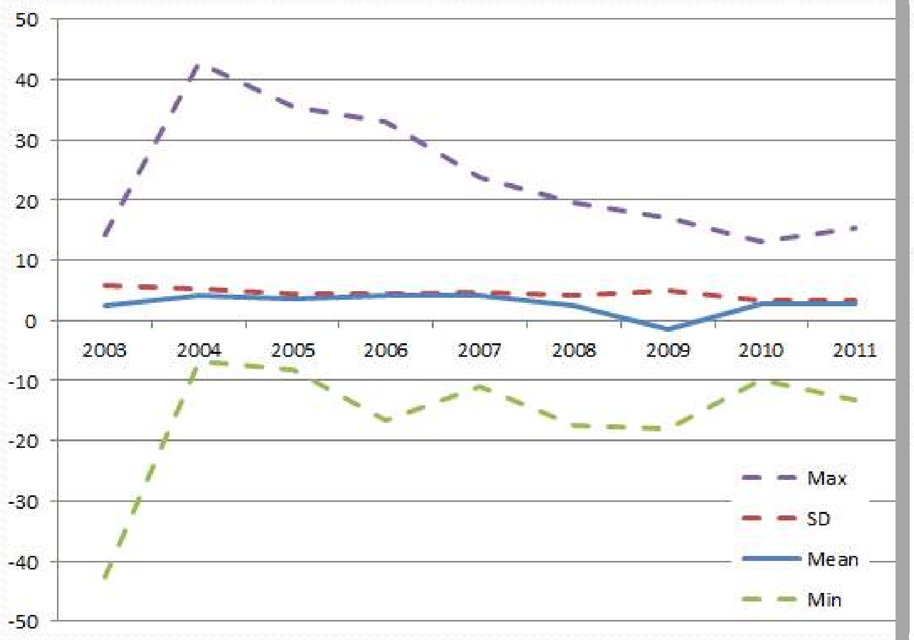
Limitations of the analysis

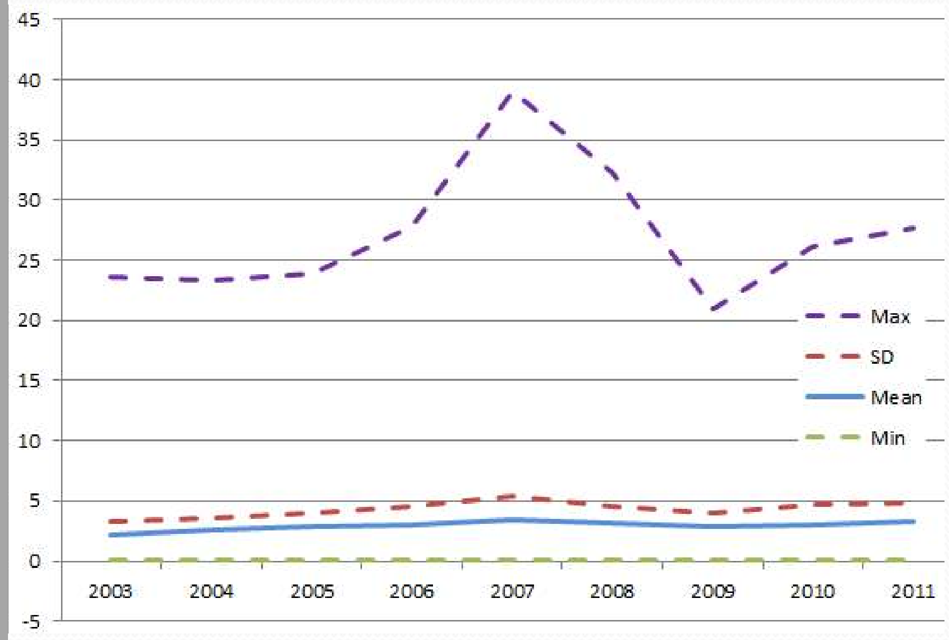
- Endogeneity of regulatory reforms → causality?
- Regulations-firm creation and Regulations-growth links are tested separately → simultaneity?

Thank you!

Descriptive stats

	GDP per capita growth (2003-11)	New businesses density (2003-11)
Mean	2.76	2.95
SD	4.89	4.39
Min	-42.77 (Iraq)	0.00
Max	42.83 (Iraq)	39.00





Results on new firm density

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	newbiz	newbiz	newbiz	newbiz	newbiz	newbiz	newbiz	newbiz
GDP per capita (log)	1.848**	1.859**	1.740**	1.836**	1.807**	1.465*	1.559*	0.775
	(2.251)	(2.258)	(2.289)	(2.352)	(2.182)	(1.693)	(1.676)	(0.863)
FDI		-0.00261	-0.00365	-0.00372	-0.00410	-0.00409	-0.00329	0.00270
		(-0.779)	(-1.181)	(-1.191)	(-1.300)	(-1.298)	(-1.016)	(1.041)
Political freedom and civil rights (FH)			0.200	0.217	0.274	0.287	0.363	0.391*
			(1.098)	(1.178)	(1.331)	(1.391)	(1.510)	(1.920)
Trade (X and M)				0.00589	0.00580	0.00549	0.00746	0.00109
				(1.138)	(1.037)	(0.981)	(1.173)	(0.181)
Corruption (CPI)					0.0608	0.0559	-0.0607	-0.0283
					(0.425)	(0.391)	(-0.339)	(-0.171)
Lagged GDP growth						0.0364	0.0410	0.0503*
						(1.358)	(1.268)	(1.747)
Country risk (ICRG)							0.0132	0.0166
							(0.334)	(0.465)
Credit to private sector								0.0184***
								(5.327)
DTF	0.0449**	0.0447**	0.0454**	0.0448**	0.0441*	0.0465**	0.0534*	0.0624**
	(1.988)	(1.976)	(2.153)	(2.072)	(1.930)	(2.029)	(1.765)	(2.247)
Constant	-16.08**	-16.16**	-15.77**	-17.16**	-17.29**	-14.50*	-16.40**	-10.94
	(-2.269)	(-2.273)	(-2.406)	(-2.522)	(-2.406)	(-1.942)	(-1.991)	(-1.387)
Observations	832	829	821	808	782	781	646	548
R-squared	0.039	0.040	0.049	0.051	0.053	0.056	0.063	0.153
Number of cod2	123	123	122	121	120	119	94	93

t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- Being 10 percentage points closer to the regulatory frontier is associated with **6.2** more businesses registered every 10,000 persons in working age (20% of the average)

Results on new firm density (2)

VARIABLES	(1) newbiz	(2) newbiz	(3) newbiz	(4) newbiz	(5) newbiz	(6) newbiz	(7) newbiz	(8) newbiz
GDP per capita (log)	1.966**	1.977**	1.933***	2.039***	1.974**	1.640*	1.754*	0.993
	(2.443)	(2.448)	(2.588)	(2.663)	(2.411)	(1.917)	(1.899)	(1.114)
FDI		-0.00256	-0.00361	-0.00367	-0.00409	-0.00408	-0.00325	0.00272
		(-0.763)	(-1.167)	(-1.176)	(-1.295)	(-1.291)	(-1.003)	(1.044)
Political freedom and civil rights (FH)			0.213	0.232	0.294	0.307	0.375	0.401*
			(1.172)	(1.257)	(1.430)	(1.491)	(1.560)	(1.965)
Trade (X and M)				0.00605	0.00606	0.00574	0.00829	0.00189
				(1.166)	(1.081)	(1.023)	(1.304)	(0.315)
Corruption (CPI)					0.0888	0.0843	-0.0338	-0.00285
					(0.628)	(0.596)	(-0.189)	(-0.0173)
Lagged GDP growth						0.0359	0.0395	0.0499*
						(1.338)	(1.218)	(1.727)
Country risk (ICRG)							0.0128	0.0154
							(0.322)	(0.428)
Credit to private sector								0.0187***
								(5.401)
DTF (time and motion)	0.0376**	0.0373**	0.0285*	0.0275	0.0256	0.0277	0.0218	0.0312
	(2.158)	(2.138)	(1.751)	(1.643)	(1.467)	(1.579)	(1.000)	(1.526)
Constant	-16.94**	-17.01**	-16.73**	-18.19***	-18.07**	-15.35**	-16.62**	-11.41
	(-2.400)	(-2.401)	(-2.559)	(-2.684)	(-2.519)	(-2.059)	(-2.014)	(-1.444)
Observations	832	829	821	808	782	781	646	548
R-squared	0.040	0.041	0.046	0.049	0.051	0.053	0.059	0.147
Number of cod2	123	123	122	121	120	119	94	93

t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) newbiz	(2) newbiz	(3) newbiz	(4) newbiz	(5) newbiz	(6) newbiz	(7) newbiz	(8) newbiz
GDP per capita (log)	2.047**	2.057**	1.737**	1.844**	1.806**	1.501*	1.575*	0.865
	(2.467)	(2.472)	(2.264)	(2.347)	(2.175)	(1.736)	(1.706)	(0.969)
FDI		-0.00268	-0.00375	-0.00380	-0.00420	-0.00420	-0.00341	0.00259
		(-0.797)	(-1.211)	(-1.219)	(-1.331)	(-1.330)	(-1.056)	(0.997)
Political freedom and civil rights (FH)			0.216	0.234	0.286	0.299	0.369	0.399*
			(1.189)	(1.271)	(1.389)	(1.454)	(1.541)	(1.964)
Trade (X and M)				0.00670	0.00649	0.00626	0.00778	0.00127
				(1.300)	(1.165)	(1.124)	(1.231)	(0.212)
Corruption (CPI)					0.0750	0.0731	-0.0673	-0.0454
					(0.529)	(0.516)	(-0.376)	(-0.274)
Lagged GDP growth						0.0336	0.0375	0.0460
						(1.256)	(1.163)	(1.602)
Country risk (ICRG)							0.0169	0.0219
							(0.428)	(0.612)
Credit to private sector								0.0183***
								(5.284)
DTF (legal)	0.0202	0.0205	0.0387*	0.0388*	0.0394*	0.0401*	0.0564**	0.0507**
	(0.935)	(0.942)	(1.918)	(1.892)	(1.827)	(1.861)	(2.040)	(2.111)
Constant	-16.29**	-16.37**	-15.11**	-16.72**	-16.90**	-14.35*	-16.55**	-10.93
	(-2.277)	(-2.280)	(-2.287)	(-2.440)	(-2.342)	(-1.916)	(-2.011)	(-1.384)
Observations	832	829	821	808	782	781	646	548
R-squared	0.035	0.036	0.047	0.050	0.053	0.055	0.064	0.152
Number of cod2	123	123	122	121	120	119	94	93

t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- Comprehensive reforms that combine Legal and TM topics have higher impact (6.2) than reforms on Legal (**5.1**) or TM (**not significant**) reforms.

Results on new firm density (3)

VARIABLES	(1) newbiz	(2) newbiz	(3) newbiz	(4) newbiz	(5) newbiz	(6) newbiz	(7) newbiz	(8) newbiz
GDP per capita (log)	1.999***	2.000***	1.754***	1.955***	1.975***	1.778**	1.916**	1.470**
	(2.921)	(2.913)	(2.814)	(3.073)	(2.903)	(2.523)	(2.573)	(2.037)
FDI		-0.00206	-0.00344	-0.00353	-0.00397	-0.00398	-0.00320	0.00271
		(-0.624)	(-1.147)	(-1.171)	(-1.299)	(-1.301)	(-1.025)	(1.058)
Political freedom and civil rights (FH)			0.149	0.168	0.217	0.230	0.251	0.281
			(0.948)	(1.058)	(1.236)	(1.306)	(1.254)	(1.647)
Trade (X and M)				0.0110**	0.0101**	0.0101**	0.0121**	0.00665
				(2.407)	(1.993)	(1.982)	(2.128)	(1.225)
Corruption (CPI)					0.0939	0.0965	-0.0533	-0.0208
					(0.765)	(0.786)	(-0.344)	(-0.147)
Lagged GDP growth						0.0257	0.0289	0.0353
						(1.071)	(1.030)	(1.418)
Country risk (ICRG)							0.00835	0.0246
							(0.241)	(0.786)
Credit to private sector								0.0165***
								(5.212)
DTF (entry/exit)	0.0274**	0.0274**	0.0354***	0.0371***	0.0400***	0.0398***	0.0355**	0.0341**
	(1.980)	(1.969)	(2.780)	(2.875)	(2.946)	(2.933)	(2.308)	(2.431)
Constant	-16.50***	-16.50***	-15.23***	-18.13***	-18.98***	-17.36***	-18.50***	-16.00**
	(-2.772)	(-2.763)	(-2.818)	(-3.229)	(-3.190)	(-2.829)	(-2.756)	(-2.484)
Observations	917	914	905	891	856	855	717	619
R-squared	0.055	0.056	0.065	0.073	0.075	0.077	0.080	0.159
Number of cod2	123	123	122	121	120	119	94	93

t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

- Entry/Exit regulations have a significant impact (**3.1**), however not as strong as more comprehensive reforms have.

Results on growth

					panel A									panel B				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
VARIABLES	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth	growth
GDP per capita (log)	-5.017***	-5.024***	-3.870**	-5.160**	-5.087**	-5.157**	-6.566***	-6.416***	-8.565***	-4.922***	-4.924***	-3.794**	-5.093***	-5.033**	-5.117***	-6.496***	-6.338***	-8.366***
	(-3.206)	(-3.212)	(-2.042)	(-2.562)	(-2.504)	(-2.534)	(-3.055)	(-2.813)	(-3.047)	(-3.194)	(-3.196)	(-2.049)	(-2.598)	(-2.553)	(-2.594)	(-3.114)	(-2.875)	(-3.128)
FDI		0.000808	0.00110	0.000344	0.000494	0.000365	0.000214	0.000318	0.00243		0.000425	0.000537	-0.000356	-0.000149	-0.000327	-0.000445	-0.000219	0.00148
		(0.628)	(1.111)	(0.370)	(0.517)	(0.400)	(0.204)	(0.309)	(1.188)		(0.338)	(0.541)	(-0.358)	(-0.146)	(-0.330)	(-0.379)	(-0.187)	(0.727)
Country risk (ICRG)			0.124*	0.0900	0.0845	0.0868	0.0776	0.0797	0.136			0.118*	0.0848	0.0774	0.0782	0.0703	0.0719	0.120
			(1.886)	(1.324)	(1.292)	(1.367)	(1.190)	(1.219)	(1.628)			(1.910)	(1.323)	(1.244)	(1.294)	(1.119)	(1.138)	(1.482)
Government consumption				-0.258***	-0.227***	-0.222***	-0.161**	-0.173**	-0.163*				-0.255***	-0.223***	-0.218***	-0.160**	-0.172**	-0.163*
				(-3.052)	(-2.696)	(-2.662)	(-2.082)	(-2.173)	(-1.892)				(-3.080)	(-2.707)	(-2.663)	(-2.057)	(-2.157)	(-1.909)
Rents from natural resources					0.0341	0.0342	-0.00625	0.00516	-0.0283					0.0364	0.0369	-0.00270	0.00825	-0.0286
					(1.189)	(1.182)	(-0.206)	(0.167)	(-0.863)					(1.286)	(1.298)	(-0.0898)	(0.267)	(-0.874)
Political freedom and civil rights (FH)						0.313	0.357	0.370	-0.00820						0.290	0.331	0.350	-0.0640
						(0.715)	(0.858)	(0.870)	(-0.0200)						(0.638)	(0.766)	(0.790)	(-0.145)
Trade (X and M)							0.0617***	0.0591***	0.0547***							0.0590***	0.0564***	0.0515***
							(3.526)	(3.435)	(3.124)							(3.419)	(3.317)	(2.950)
Corruption (CPI)								-0.117	-0.375								-0.141	-0.413
								(-0.355)	(-0.854)								(-0.437)	(-0.951)
Credit to private sector									-0.0278									-0.0287
									(-1.170)									(-1.181)
Lagged GDP growth	0.448***	0.448***	0.426***	0.365***	0.356***	0.359***	0.330***	0.327***	0.274***	0.445***	0.445***	0.427***	0.371***	0.363***	0.365***	0.337***	0.335***	0.291***
	(10.84)	(10.84)	(6.830)	(4.857)	(5.060)	(5.047)	(4.800)	(4.780)	(3.140)	(11.09)	(11.10)	(7.124)	(5.145)	(5.427)	(5.436)	(5.109)	(5.129)	(3.498)
Delta DTF	-0.0282	-0.0291	0.0492	0.0756	0.0805	0.0817	0.0750	0.0802	0.0813									
	(-0.872)	(-0.900)	(0.964)	(1.335)	(1.438)	(1.435)	(1.365)	(1.415)	(1.306)									
Delta DTF (D2)										0.250*	0.252*	0.372**	0.390*	0.353*	0.374*	0.353*	0.286	0.363
										(1.672)	(1.678)	(2.002)	(1.932)	(1.710)	(1.802)	(1.723)	(1.400)	(1.388)
Delta DTF (D3)										0.272	0.266	0.397*	0.335	0.303	0.339	0.274	0.239	0.0477
										(1.461)	(1.422)	(1.735)	(1.440)	(1.313)	(1.453)	(1.234)	(1.035)	(0.168)
Delta DTF (D4)										0.297	0.293	0.773**	0.915***	0.929***	0.977***	0.808**	0.799**	0.830**
										(1.335)	(1.316)	(2.316)	(2.599)	(2.620)	(2.696)	(2.373)	(2.326)	(2.058)
Constant	45.62***	45.68***	30.23*	48.02***	46.77***	46.22**	53.39***	52.70***	73.99***	44.51***	44.54***	29.49*	47.33***	46.27***	45.96**	53.13***	52.54***	73.45***
	(3.289)	(3.295)	(1.853)	(2.663)	(2.599)	(2.517)	(2.801)	(2.703)	(3.044)	(3.256)	(3.258)	(1.840)	(2.690)	(2.642)	(2.566)	(2.856)	(2.768)	(3.143)
Observations	855	852	633	567	561	557	552	545	428	855	852	633	567	561	557	552	545	428
Number of cod2	175	174	130	122	122	121	120	118	115	175	174	130	122	122	121	120	118	115
chi2	138.6	138.4	167.3	135.0	163.9	160.4	106.7	113.8	92.57	134.6	134.7	158.5	123.3	154.8	152.4	108.4	112.7	89.27

- Moving from the worst quartile (D1) to the best quartile (D4) is linked to an increase in annual GDP per capita growth of around **0.8** percentage points. This is a significant amount given that the average GDP per capita growth is 2.7 percent.

Results on growth (2)

VARIABLES	(1) growth	(2) growth	(3) growth	(4) growth	(5) growth	(6) growth	(7) growth	(8) growth	(9) growth
GDP per capita (log)	-4.998***	-4.999***	-4.025**	-5.400***	-5.353***	-5.416***	-6.799***	-6.678***	-8.940***
	(-3.222)	(-3.224)	(-2.170)	(-2.723)	(-2.668)	(-2.692)	(-3.202)	(-2.961)	(-3.214)
FDI		0.000725	0.000865	7.41e-05	0.000217	8.97e-05	-4.47e-05	3.98e-05	0.00215
		(0.575)	(0.921)	(0.0811)	(0.237)	(0.100)	(-0.0419)	(0.0379)	(1.127)
Country risk (ICRG)			0.114*	0.0805	0.0752	0.0773	0.0694	0.0715	0.131
			(1.727)	(1.177)	(1.148)	(1.213)	(1.066)	(1.096)	(1.560)
Government consumption				-0.253***	-0.223***	-0.218***	-0.159**	-0.170**	-0.163*
				(-3.020)	(-2.657)	(-2.625)	(-2.025)	(-2.117)	(-1.868)
Rents from natural resources					0.0344	0.0344	-0.00560	0.00593	-0.0292
					(1.194)	(1.186)	(-0.183)	(0.190)	(-0.889)
Political freedom and civil rights (FH)						0.290	0.335	0.347	-0.0393
						(0.646)	(0.787)	(0.797)	(-0.0922)
Trade (X and M)							0.0611***	0.0586***	0.0538***
							(3.475)	(3.385)	(3.050)
Corruption (CPI)								-0.0925	-0.325
								(-0.281)	(-0.749)
Credit to private sector									-0.0280
									(-1.173)
Lagged GDP growth	0.443***	0.443***	0.425***	0.366***	0.358***	0.360***	0.330***	0.328***	0.273***
	(10.73)	(10.74)	(6.861)	(4.921)	(5.117)	(5.103)	(4.857)	(4.806)	(3.121)
Delta DTF (legal)	0.0374	0.0368	0.0901**	0.0966**	0.0958**	0.0956**	0.0859**	0.0873**	0.0871**
	(1.464)	(1.438)	(2.218)	(2.318)	(2.340)	(2.308)	(2.188)	(2.197)	(1.982)
Constant	45.35***	45.36***	32.05**	50.62***	49.60***	49.06***	56.01***	55.48***	77.64***
	(3.300)	(3.302)	(2.019)	(2.853)	(2.793)	(2.700)	(2.976)	(2.884)	(3.233)
Observations	855	852	633	567	561	557	552	545	428
Number of cod2	175	174	130	122	122	121	120	118	115
chi2	153.7	154.5	175.1	136.1	165.7	161.5	113.9	119.2	99.85

Robust z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- A 1 percentage point improvement in the DTF for the indicators measuring the strength of legal institutions is associated with an increase of **0.09**% in annual growth rate.

Results on growth (3)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
VARIABLES	growth	growth	growth	growth	growth	growth	growth	growth	growth
GDP per capita (log)	-7.224***	-7.226***	-7.233***	-8.083***	-8.017***	-8.020***	-8.584***	-8.579***	-9.312***
	(-6.463)	(-6.479)	(-4.986)	(-5.595)	(-6.036)	(-5.960)	(-6.669)	(-6.594)	(-6.477)
FDI		0.00107	0.000882	0.000380	0.000470	0.000353	-0.000291	-0.000353	0.00168
		(0.742)	(0.971)	(0.367)	(0.455)	(0.350)	(-0.266)	(-0.332)	(1.051)
Country risk (ICRG)			0.193**	0.101	0.0915	0.0927	0.0875	0.0897	0.147*
			(2.456)	(1.605)	(1.460)	(1.510)	(1.369)	(1.407)	(1.904)
Government consumption				-0.216***	-0.187**	-0.186**	-0.147*	-0.156**	-0.140*
				(-2.862)	(-2.383)	(-2.386)	(-1.948)	(-2.020)	(-1.744)
Rents from natural resources					0.0543*	0.0542*	0.00948	0.0230	-0.00680
					(1.717)	(1.708)	(0.299)	(0.731)	(-0.201)
Political freedom and civil rights (FH)						0.150	0.173	0.203	0.0465
						(0.520)	(0.633)	(0.729)	(0.180)
Trade (X and M)							0.0540***	0.0526***	0.0479***
							(3.634)	(3.557)	(3.226)
Corruption (CPI)								0.0342	-0.206
								(0.136)	(-0.656)
Credit to private sector									-0.0143
									(-1.056)
Lagged GDP growth	0.462***	0.462***	0.401***	0.380***	0.366***	0.367***	0.355***	0.347***	0.312***
	(11.80)	(11.81)	(6.640)	(5.784)	(6.178)	(6.147)	(5.803)	(5.698)	(4.201)
Delta DTF (entry/exit)	0.0188	0.0187	0.0364**	0.0544***	0.0527***	0.0527***	0.0472***	0.0472***	0.0536***
	(1.337)	(1.323)	(2.389)	(3.267)	(3.013)	(3.035)	(2.907)	(2.850)	(2.802)
Constant	65.00***	65.02***	57.51***	73.38***	72.21***	71.61***	72.04***	71.88***	78.39***
	(6.564)	(6.580)	(4.078)	(5.357)	(5.793)	(5.709)	(6.235)	(6.308)	(6.336)
Observations	1,145	1,142	865	795	789	783	778	766	646
Number of cod2	176	176	132	126	126	125	125	124	122
chi2	142.9	143.1	223.4	201.0	211.6	212.4	138.3	141.7	122.8

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

- A 1 percentage point improvement in the DTF for entry and exit is associated with a **0.05**% increase in annual growth rate.

Results on growth (4)

VARIABLES	(1) growth	(2) growth	(3) growth	(4) growth	(5) growth	(6) growth	(7) growth	(8) growth	(9) growth
GDP per capita (log)	-7.337***	-7.339***	-6.732***	-8.078***	-8.048***	-8.084***	-9.175***	-9.279***	-11.10***
	(-5.221)	(-5.226)	(-3.727)	(-4.491)	(-4.689)	(-4.680)	(-5.116)	(-4.998)	(-5.332)
FDI		0.000659	0.000453	-7.04e-05	2.29e-05	-8.50e-05	-0.000461	-0.000591	0.00138
		(0.517)	(0.515)	(-0.0712)	(0.0242)	(-0.0884)	(-0.387)	(-0.498)	(0.885)
Country risk (ICRG)			0.190**	0.102	0.0923	0.0939	0.0882	0.0904	0.164**
			(2.355)	(1.560)	(1.446)	(1.500)	(1.357)	(1.400)	(2.020)
Government consumption				-0.202**	-0.169**	-0.167**	-0.116	-0.123	-0.113
				(-2.575)	(-2.063)	(-2.048)	(-1.420)	(-1.488)	(-1.316)
Rents from natural resources					0.0559*	0.0559*	0.00739	0.0202	-0.0180
					(1.716)	(1.704)	(0.221)	(0.606)	(-0.514)
Political freedom and civil rights (FH)						0.234	0.236	0.280	-0.0209
						(0.613)	(0.662)	(0.753)	(-0.0576)
Trade (X and M)							0.0634***	0.0622***	0.0577***
							(3.581)	(3.533)	(3.178)
Corruption (CPI)								0.159	0.0633
								(0.550)	(0.177)
Credit to private sector									-0.0158
									(-1.031)
Lagged GDP growth	0.429***	0.429***	0.382***	0.363***	0.348***	0.350***	0.323***	0.313***	0.256***
	(9.171)	(9.177)	(5.335)	(4.763)	(5.094)	(5.061)	(4.903)	(4.734)	(3.108)
Delta DTF (credit system)	0.0678***	0.0674***	0.136***	0.140***	0.140***	0.140***	0.123***	0.123***	0.126***
	(2.734)	(2.715)	(3.586)	(3.452)	(3.440)	(3.424)	(3.270)	(3.247)	(2.989)
Constant	66.03***	66.06***	53.10***	73.14***	72.24***	71.64***	75.99***	76.17***	91.90***
	(5.307)	(5.313)	(3.095)	(4.339)	(4.546)	(4.462)	(4.703)	(4.692)	(5.019)
Observations	1,004	1,001	751	682	676	671	666	656	537
Number of cod2	175	175	131	124	124	123	123	121	118
chi2	93.94	93.97	139.9	129.1	139.8	136.6	100.8	99.40	91.30

Robust z-statistics in parentheses

- A 1 percentage point improvement in the DTF for credit markets is associated with an increase of **0.13** % in annual growth rate. This highlights the importance of sound credit market regulations and enforcing legal institutions for growth.