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ΔΑΦΝΗ ΑΘΑΝΑΣΟΥΛΗ

ΔΙΔΑΚΤΟΡΙΚΗ ΔΙΑΤΡΙΒΗ

Ευρωπαϊκή Ένωση
Ευρωπαϊκό Κοινωνικό Ταμείο

ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ
ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗ
επένδυση στην κοινωνία της γνώσης
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ
ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ

ΕΣΠΑ 2007-2013
πρόγραμμα για την ανάπτυξη
ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΩΝΙΚΟ ΤΑΜΕΙΟ

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

ΚΟΡΙΝΘΟΣ
ΣΕΠΤΕΜΒΡΙΟΣ 2015

ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΛΟΠΟΝΝΗΣΟΥ

ΤΜΗΜΑ ΠΟΛΙΤΙΚΗΣ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΔΙΕΘΝΩΝ ΣΧΕΣΕΩΝ

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ΔΑΦΝΗ ΑΘΑΝΑΣΟΥΛΗ

ΔΙΔΑΚΤΟΡΙΚΗ ΔΙΑΤΡΙΒΗ

Υπεβλήθη στο Τμήμα Πολιτικής Επιστήμης και Διεθνων Σχέσεων του Πανεπιστημίου Πελοποννήσου ως μέρος των απαιτήσεων για την απόκτηση Διδακτορικού Διπλώματος.

Η εκπόνηση της διατριβής συνετελέσθη με την καθοδήγηση τριμελούς Συμβουλευτικής Επιτροπής υπό την Εποπτεία του Καθηγητή κ. Παντελή Σκλιά.

ΚΟΡΙΝΘΟΣ, Σεπτέμβριος 2015

Ο ΕΠΙΒΛΕΠΩΝ,

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ΣΥΓΚΡΙΤΙΚΗ ΜΕΛΕΤΗ ΤΗΣ ΔΙΑΦΘΟΡΑΣ ΚΑΙ ΤΗΣ ΑΝΑΠΤΥΞΗΣ ΤΩΝ ΕΠΙΧΕΙΡΗΣΕΩΝ ΣΤΗΝ ΝΟΤΙΑ ΕΥΡΩΠΗ, ΤΗΝ ΑΝΑΤΟΛΙΚΗ ΕΥΡΩΠΗ ΚΑΙ ΤΗΝ ΚΕΝΤΡΙΚΗ ΑΣΙΑ

A COMPARATIVE ANALYSIS OF CORRUPTION AND BUSINESS GROWTH IN SOUTH EUROPE, EASTERN EUROPE AND CENTRAL ASIA

A Dissertation Presented

by

DAPHNE G. ATHANASOULI

September 2015

Declaration of Authorship in Greek

Υπεύθυνη Δήλωση

Δηλώνω υπεύθυνα ότι η διπλωματική εργασία είναι εξ ολοκλήρου δικό μου έργο και κανένα μέρος της δεν είναι αντιγραμμένο από έντυπες ή ηλεκτρονικές πηγές, μετάφραση από ξενόγλωσσες πηγές και αναπαραγωγή από εργασίες άλλων ερευνητών η φοιτητών. Όπου έχω βασιστεί σε ιδέες ή κείμενα άλλων, έχω προσπαθήσει με όλες μου τις δυνάμεις να το προσδιορίσω σαφώς μέσα από την καλή χρήση αναφορών ακολουθώντας την ακαδημαϊκή δεοντολογία.

Η Υποψήφια Διδάκτωρ

Δάφνη Αθανασούλη

ΕΥΧΑΡΙΣΤΙΕΣ

Θα ήθελα πρώτα να ευχαριστήσω τον επιβλέποντα της διατριβής μου, Πρόεδρο του Τμήματος Πολιτικής Επιστήμης και Διεθνών Σχέσεων του Πανεπιστημίου Πελοποννήσου, Καθηγητή κ. Παντελή Σκλιά για την ευκαιρία που μου έδωσε, για την συμβολή του στην δημιουργία μίας πρωτότυπης πρότασης, και για την υποστήριξη του και την καθοδήγηση του κατά τη διάρκεια του έργου καθώς και για τις σημαντικές υποδείξεις του στο τελικό στάδιο της διατριβής. Θα ήθελα επίσης να ευχαριστήσω τα μέλη της Τριμελούς Επιτροπής, τον Αναπληρωτή Καθηγητή του Τμήματος Πολιτικής Επιστήμης και Διεθνών Σχέσεων του Πανεπιστημίου Πελοποννήσου κ. Πύρρο Παπαδημητρίου, και τον καθηγητή κ. Ευάγγελο Δρυμπέτα του Τμήματος Διεθνών Οικονομικών Σχέσεων και Ανάπτυξης του Δημοκρίτειου Πανεπιστήμιου Θράκης. Τέλος θα ήθελα να ευχαριστήσω τα υπόλοιπα μέλη του Τμήματος Πολιτικής Επιστήμης και Διεθνών Σχέσεων για τις συμβουλές που μου έδωσαν ιδιαίτερα στα πρώτα στάδια της διατριβής αυτής ως προς το περιεχόμενο και την μεθοδολογία που θα ακολουθήσω.

Η παρούσα έρευνα έχει συγχρηματοδοτηθεί από την Ευρωπαϊκή Ένωση (Ευρωπαϊκό Κοινωνικό Ταμείο - ΕΚΤ) και από εθνικούς πόρους μέσω του Επιχειρησιακού Προγράμματος «Εκπαίδευση και Δια Βίου Μάθηση» του Εθνικού Στρατηγικού Πλαισίου Αναφοράς (ΕΣΠΑ) – Ερευνητικό Χρηματοδοτούμενο Έργο: Ηράκλειτος ΙΙ . Επένδυση στην κοινωνία της γνώσης μέσω του Ευρωπαϊκού Κοινωνικού Ταμείου.

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

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ΠΕΡΙΛΗΨΗ

Η διαφθορά είναι στο επίκεντρο της έρευνας κατά τα τελευταία χρόνια. Η παρούσα διατριβή «Συγκριτική Ανάλυση της διαφθοράς και την ανάπτυξη των επιχειρήσεων στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία» επεκτείνει την έρευνα για τη διαφθορά και αξιολογεί λεπτομερώς τις επιπτώσεις της στην ανάπτυξη των επιχειρήσεων. Η ανάλυση καλύπτει τις χώρες της Νότιας Ευρώπης, η οποία περιλαμβάνει την Ελλάδα, την Πορτογαλία και την Ισπανία, την Ανατολική Ευρώπη, η οποία περιλαμβάνει τη Ρουμανία, την ΠΓΔΜ, την Αλβανία, τη Βουλγαρία, τη Σερβία, την Κροατία, την Τσεχία, την Εσθονία, την Ουγγαρία, τη Λετονία, τη Λιθουανία, την Πολωνία, τη Σλοβακία, τη Σλοβενία, την Αρμενία, το Αζερμπαϊτζάν, τη Λευκορωσία, τη Γεωργία, τη Μολδαβία, την Ουκρανία και τη Ρωσία, και την Κεντρική Ασία, που περιλαμβάνει το Καζακστάν, το Κιργιστάν, το Τατζικιστάν, και το Ουζμπεκιστάν. Η διατριβή κάνει χρήση πρωτογενούς και δευτερογενούς βιβλιογραφίας προκειμένου να αξιολογηθούν οι επιπτώσεις της διαφθοράς στην ανάπτυξη των επιχειρήσεων. Τα πρωτογενή δεδομένα βασίζονται σε προσωπικές συνεντεύξεις που πραγματοποιήθηκαν σε δείγμα ελληνικών επιχειρήσεων στην Αθήνα για την αξιολόγηση της διαφθοράς και άλλων εμποδίων στην επιχειρηματική τους δραστηριότητα. Αυτό το δείγμα των 16 ελληνικών επιχειρήσεων προσφέρει μια μοναδική, σε βάθος προοπτική για τα προβλήματα που αντιμετωπίζουν οι επιχειρήσεις σε ένα αδύναμο θεσμικό περιβάλλον την περίοδο 2013-2014. Επίσης, η διατριβή χρησιμοποιεί εκτενώς δευτερογενή βιβλιογραφία, με κύρια πηγή την Έρευνα Επιχειρηματικού Περιβάλλοντος και Ανάπτυξης, μια έρευνα που διεξήχθη από την Ευρωπαϊκή Τράπεζα Ανασυγκρότησης και Ανάπτυξης (ΕΤΑΑ) και την Παγκόσμια Τράπεζα. Επιπλέον, χρησιμοποιούνται δεδομένα από τη Διεθνή Διαφάνεια και συγκεκριμένα το Corruption Perception Index για να αξιολογηθεί το επίπεδο της διαφθοράς, καθώς και μια έρευνα της Διεθνούς Διαφάνειας στην Ελλάδα το 2013 που δείχνει το ποσοστό των νοικοκυριών που δήλωσαν πληρωμές για δωροδοκία. Αυτά τα σύνολα δεδομένων προσαρμόστηκαν στις ανάγκες και τους στόχους της έρευνας, και εξήχθησαν τα απαραίτητα στατιστικά δείγματα στις χώρες της έρευνας και δημιουργήθηκαν νέες στατιστικές μεταβλητές. Η διατριβή κάνει πρωτότυπες συμβολές στο πεδίο της

έρευνας για τη διαφθορά, οι οποίες αναλύονται παρακάτω ως προς το περιεχόμενο και τη μεθοδολογία, ενώ αναφέρεται πιο ειδικά η συγκεκριμένη συνεισφορά κάθε κεφάλαιου.

Η παρούσα διατριβή είναι καινοτόμος σε πέντε κύριες πτυχές. Αναλύει το φαινόμενο της διαφθοράς υπό το πρίσμα της Διεθνούς Πολιτικής Οικονομίας. Υιοθετεί μία διεπιστημονική προσέγγιση. Επικεντρώνεται στην Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία, και παρέχει περιπτωσιολογικές μελέτες για την Ελλάδα. Εξετάζει την ετερογενή επίδραση της διαφθοράς στις επιχειρήσεις, με βάση διάφορα μέτρα της διαφθοράς και τύπους επιχειρήσεων. Βασίζεται τόσο σε γνωστές σειρές δευτερογενών δεδομένων όσο και πρωτογενών δεδομένων.

Η διδακτορική διατριβή εξετάζει την επίδραση της διαφθοράς στην ανάπτυξη των επιχειρήσεων και τη σημασία των θεσμών υπό το πρίσμα της Διεθνούς Πολιτικής Οικονομίας. Τονίζει τις αρνητικές συνέπειες της διαφθοράς στις επιχειρήσεις και οδηγεί σε συμπεράσματα σχετικά με τον τρόπο αντιμετώπισής τους και τη βελτίωση των θεσμών για την προώθηση της δημιουργίας και της ανάπτυξης συνθηκών γαι την αποτελεσματική λειτουργία των επιχειρήσεων. Η διατριβή βασίζεται στην αλληλεπίδραση μεταξύ οικονομίας και πολιτικής των επιχειρήσεων και των θεσμών, μέσα από την προοπτική της Διεθνούς Πολιτικής Οικονομίας και των ευρημάτων της, τα οποία μπορούν να έχουν εφαρμογή σε διαφορετικά θεσμικά περιβάλλοντα και τύπους εταιρειών. Η Διεθνής Πολιτική Οικονομία προσφέρει μια πιο ολοκληρωμένη προσέγγιση στη μελέτη των σύγχρονων πολύπλοκων κοινωνικών, οικονομικών και πολιτικών φαινομένων όπως η διαφθορά. Με βάση αυτή την προσέγγιση, η οικονομία και η πολιτική για την τοπική και παγκόσμια κλίμακα δεν μπορεί να νοηθεί ανεξάρτητα η μία από την άλλη.

Η διατριβή βασίζεται σε μια διεπιστημονική προσέγγιση, καθώς η διαφθορά έχει πολιτικές, κοινωνικές και οικονομικές πτυχές και επιπτώσεις και θα πρέπει να εξεταστεί σε όλες τις διαφορετικές διαστάσεις της προκειμένου να παράγει μια ολοκληρωμένη και πρωτότυπη διατριβή. Τα δευτερογενή δεδομένα που χρησιμοποιούνται από την Έρευνα Επιχειρηματικού Περιβάλλοντος και Ανάπτυξης των Επιχειρήσεων από την ΕΤΑΑ και την Παγκόσμια Τράπεζα, καθώς και τα πρωτογενή δεδομένα που

συλλέγονται μέσα από τις συνεντεύξεις για την ελληνικές εταιρείες βασίζονται σε μια διεπιστημονική προσέγγιση που επιτρέπει την ανάλυση διαφορετικών πολιτικών, οικονομικών και κοινωνικών πτυχών. Αυτή η διεπιστημονική προσέγγιση τονίζεται και στο εισαγωγικό κεφάλαιο της διατριβής, η οποία παρέχει μια ανάλυση αιτίων της διαφθοράς.

Η διατριβή επικεντρώνεται στη διαφθορά στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία. Η έρευνα βασιζόμενη σε συγκριτική ανάλυση για το φαινόμενο της διαφθοράς έχει μέχρι σήμερα επικεντρωθεί κυρίως σε συγκεκριμένες χώρες. Η συγκριτική μελέτη της διαφθοράς στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία απαιτεί συστηματική έρευνα δεδομένου ότι υπάρχει έλλειψη συγκριτικών μελετών σχετικά με την επίδραση της διαφθοράς στην ανάπτυξη των επιχειρήσεων στις περιοχές αυτές. Με την συγκριτική μελέτη των περιοχών αυτών προκύπτουν χρήσιμα συμπεράσματα ιδίως για τις χώρες της Κεντρικής Ασίας, οι οποίες υποφέρουν από υψηλότερα ποσοστά διαφθοράς. Οι επιπτώσεις της διαφθοράς εξετάζονται συγκριτικά στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία.

Η εργασία διεξάγει περιπτωσιολογικές μελέτες στην Ελλάδα. Το φαινόμενο της διαφθοράς και ο αντίκτυπός της στην ανάπτυξη των επιχειρήσεων στην Ελλάδα δεν έχει εξεταστεί επαρκώς. Παρόλο που η διαφθορά λαμβάνει ολοένα και μεγαλύτερης προσοχή στην Ελλάδα τα τελευταία χρόνια, η έρευνα έχει επικεντρωθεί κυρίως στην πολιτική διαφθορά ή τις δωροδοκίες που ζητούνται από τους πολίτες σε οργανισμούς του δημόσιου τομέα και σπανιότερα σε ορισμένες επιχειρήσεις του ιδιωτικού τομέα. Ωστόσο η επιχειρηματική διαφθορά εξακολουθεί να μην έχει ερευνηθεί. Οι περιπτωσιολογικές μελέτες στην Ελλάδα θα συμβάλουν στην εξαγωγή χρήσιμων συμπερασμάτων για την αντιμετώπιση των συνεπειών της διαφθοράς στην Ελλάδα, η οποία είναι ένα από τα πιο σοβαρά εμπόδια για την πρόοδο και τον εκσυγχρονισμό του δημόσιου τομέα της χώρας.

Η διατριβή αναλύει τις συνέπειες της διαφθοράς για διαφορετικές επιχειρήσεις. Οι κύριες μελέτες σχετικά με τη διαφθορά είναι στο επίπεδο της χώρας, ενώ οι μελέτες σε επίπεδο επιχείρησης είναι πιο σπάνιες. Ο αντίκτυπος της διαφθοράς στον ιδιωτικό τομέα και οι επιπτώσεις της σε

διαφορετικούς τύπους επιχειρήσεων απαιτεί πρόσθετη έρευνα, καθώς η υπάρχουσα βιβλιογραφία είναι ακόμη περιορισμένη. Η έρευνα είναι ιδιαίτερα σημαντική για την είσοδο, τη λειτουργία και την ανάπτυξη των επιχειρήσεων καθώς και για την επιβίωση ορισμένων επιχειρήσεων κυρίως νέων και μικρών επιχειρήσεων, που συχνά πλήττονται περισσότερο από τη διαφθορά. Τα συμπεράσματα από τη μελέτη θα είναι χρήσιμα για μέτρα και πολιτικές για τη βελτίωση του θεσμικού περιβάλλοντος στο οποίο λειτουργούν οι επιχειρήσεις.

Η μέτρηση και ανάλυση της διαφθοράς βασίζεται είτε σε υποκειμενικά δεδομένα της διαφθοράς με βάση τις αντιλήψεις των ερωτούμενων και την έκταση και τη σοβαρότητα του φαινομένου, είτε σε μετρήσεις με βάση την εμπειρία των ερωτούμενων σχετικά με περιστατικά διαφθοράς και την έκταση αυτών. Τα δεδομένα που χρησιμοποιεί η διατριβή βασίζονται στην εμπειρία των ερωτούμενων και απαντούν στο ποσό των δωροδοκιών που τους ζητούνται ως ποσοστό επί των συνολικών ετήσιων πωλήσεων. Τα υποκειμενικά μέτρα της διαφθοράς απαντούν σε ερωτήσεις σχετικά με τη συχνότητα των δωροδοκιών και το κατά πόσο η διαφθορά αποτελεί επιχειρηματικό εμπόδιο. Αυτός ο τρόπος μέτρησης της διαφθοράς γενικά μπορεί να είναι λιγότερο ακριβής καθώς βασίζεται και επηρεάζεται από προσωπικές αντιλήψεις. Μπορεί να υποστηριχθεί ότι τα δεδομένα με βάση την εμπειρία είναι συχνά πιο αξιόπιστα. Η διατριβή για την καλύτερη δυνατή μέτρηση της διαφθοράς στις χώρες που εξετάζονται και για να μειωθεί τυχόν στατιστικό σφάλμα μέτρησης χρησιμοποιεί και τους δύο τύπους μέτρησης προκειμένου να αξιολογήσει τις επιπτπώσεις της στο επιχειρηματικό περιβάλλον.

Η ανάλυση βασίζεται εξίσου σε πρωτογενή και δευτερογενή δεδομένα. Εκτός από τα δευτερογενή δεδομένα που χρησιμοποιούνται από την ΕΤΑΑ και την Παγκόσμια Τράπεζα, η διατριβή συγκέντρωσε πρωτογενή δεδομένα για τους σκοπούς της παρούσας ανάλυσης από τις προσωπικές συνεντεύξεις με ιδιοκτήτες επιχειρήσεων που παρείχαν νέες σημαντικές πληροφορίες για τα σημερινά προβλήματα επιχειρηματικής δραστηριότητας στην Ελλάδα.

Η διατριβή περιέχει επίσης πληροφορίες σχετικά με τη διαφθορά και τις επιπτώσεις της στην ανάπτυξη των επιχειρήσεων στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία.

Το πρώτο εισαγωγικό κεφάλαιο προσφέρει ένα νέο αναλυτικό πλαίσιο για την ανάλυση της διαφθοράς και των αιτίων της. Μια πληθώρα μελετών έχουν συμβάλει αποτελεσματικά στην κατανόηση του φαινομένου της διαφθοράς και των αιτίων της. Ωστόσο, οι δεσμοί μεταξύ των αιτίων και η αλληλεξάρτηση τους παραμένουν σε μεγάλο βαθμό ανεξέταστες. Το κεφάλαιο παράγει μια νέα κατηγοριοποίηση των αιτίων της διαφθοράς και τις δυναμικές σχέσεις μεταξύ τους, στηριζόμενο σε τέσσερις αλληλεξαρτώμενες κατηγορίες θεσμών.

Το δεύτερο κεφάλαιο εξετάζει τη σχέση μεταξύ διαφθοράς και της ανάπτυξης των επιχειρήσεων, χρησιμοποιώντας δεδομένα σε επίπεδο επιχείρησης στη Νότια Ευρώπη, την Ανατολική Ευρώπη και την Κεντρική Ασία. Συγκρίνοντας τις διάφορες χώρες, η διαφθορά φαίνεται να σχετίζεται αρνητικά με τα ποσοστά των πωλήσεων σε εθνικό επίπεδο. Ωστόσο, σε επίπεδο επιχείρησης, τα αποτελέσματα δείχνουν ότι οι επιχειρήσεις επηρεάζονται διαφορετικά από τη διαφθορά. Το εύρημα αυτό πιθανώς αντανακλά την εμπλοκή των επιχειρήσεων σε διαφορετικές πρακτικές διαφθοράς. Η διαφθορά ερευνάται από δύο οπτικές: τη διοικητική διαφθορά και τη «κρατική αιχμαλώτιση» (state capture). Η διοικητική διαφθορά αφορά στη δωροδοκία από άτομα ή εταιρείες προκειμένου να επηρεάσουν την εφαρμογή των νόμων και κανονισμών, ενώ η «κρατική αιχμαλώτιση» αφορά στη δωροδοκία για τον την τροποποίηση του περιεχομένου των νόμων. Η μελέτη διακρίνει τις επιπτώσεις της διαφθοράς σε επίπεδο επιχείρησης, κλάδου, περιφέρειας και χώρας. Σε ατομικό επίπεδο επιχείρησης, η διαφθορά δεν φαίνεται να είναι αρνητική για την ανάπτυξη των επιχειρήσεων, ενώ οι επιπτώσεις της διαφθοράς παραμένουν αρνητικές και σημαντικές για όλες τις επιχειρήσεις σε περιφερειακό και εθνικό επίπεδο.

Το τρίτο κεφάλαιο εξετάζει τη σχέση μεταξύ διαφθοράς και της ανάπτυξης των εταιρειών στην Ελλάδα με δεδομένα σε επίπεδο επιχείρησης. Η πρωτοτυπία αυτού του κεφαλαίου είναι ότι η ανάλυση της επίδρασης της διαφθοράς στην ανάπτυξη των επιχειρήσεων δεν έχει διεξαχθεί για την Ελλάδα και

με αυτό το επίπεδο ακρίβειας. Η πρόσβαση σε αυτά τα δεδομένα από την ΕΤΑΑ για περίπου 550 ελληνικές επιχειρήσεις είναι πολύ σημαντική για να διεξαχθούν χρήσιμα συμπεράσματα σε περιφερειακό και κλαδικό επίπεδο. Τα στοιχεία για την Ελλάδα από την Έρευνα Επιχειρηματικού Περιβάλλοντος και Ανάπτυξης 2005 δεν έχουν παράγει εκθέσεις και δεν έχουν αξιοποιηθεί ή αναλυθεί με λεπτομέρεια. Ένα άλλο ενδιαφέρον μέρος αυτού του κεφαλαίου είναι το επίπεδο της ακρίβειας που χρησιμοποιήθηκε. Τα δεδομένα που χρησιμοποιούνται βρίσκονται στο περιφερειακό επίπεδο, που δεν έχουν αναλυθεί μέχρι σήμερα. Αυτά τα στοιχεία δεν είναι δημόσια διαθέσιμα, μόνο τα δεδομένα σε επίπεδο χώρας είναι δημόσια διαθέσιμα και μου παραχωρηθήκαν από την Οικονομολόγο στην ΕΤΑΑ, που είναι υπεύθυνη για την Έρευνα Επιχειρηματικού Περιβάλλοντος και Ανάπτυξης Επιχειρήσεων για τους σκοπούς της παρούσας διατριβής. Παρόλο που υπάρχουν έρευνες σε νοικοκυριά που υλοποιούνται κυρίως από την Διεθνή Διαφάνεια Ελλάδας τα τελευταία χρόνια και, επίσης, ορισμένες έρευνες αξιολόγησης επιχειρηματικών εμποδίων, έρευνες σε επίπεδο επιχείρησης στην Ελλάδα, χρησιμοποιώντας όχι μόνο μέτρα που βασίζονται σε προσωπικές αντιλήψεις αλλά και μέτρα που βασίζονται στην εμπειρία της διαφθοράς είναι πράγματι κάτι νέο καθώς τα στοιχεία αυτά δεν έχουν αναλυθεί μέχρι σήμερα. Η ποιότητα της έρευνας για την εξαγωγή στατιστικών δεδομένων από την ΕΤΑΑ και την Παγκόσμια Τράπεζα ταυτόχρονα εξασφαλίζει ένα υψηλό επίπεδο ακρίβειας και αξιοπιστίας. Η ανάλυση συμβάλλει στην κατανόηση της διοικητικής διαφθοράς στην Ελλάδα και τις επιπτώσεις της στο επιχειρηματικό περιβάλλον.

Το τέταρτο κεφάλαιο αναλύει νέες προσωπικές συνεντεύξεις με επιχειρηματίες στην Ελλάδα με σκοπό να παρέχει μια πιο ακριβή εικόνα των επιχειρηματικών εμποδίων που αντιμετωπίζουν. Βασίζεται στο τρίτο κεφάλαιο που διερεύνησε τη σχέση μεταξύ διαφθοράς και ανάπτυξης επιχειρήσεων στην Ελλάδα. Η πρωτότυπη συνεισφορά του κεφαλαίου αυτού είναι ότι πραγματοποιεί μια πιο εμπεριστατωμένη ανάλυση των εμποδίων στην επιχειρηματική δραστηριότητα στην Ελλάδα και βασίζεται στη συλλογή μιας σειράς νέων προσωπικών συνεντεύξεων με επιχειρηματίες στον τομέα της λογιστικής, της εστίασης, των κατασκευών και του λιανικού εμπορίου. Αυτοί οι τέσσερις τομείς αξιολόγησαν τη διαφθορά ως ένα σοβαρό εμπόδιο για τη λειτουργία τους βάση της ανάλυσης της

Έρευνας Επιχειρηματικού Περιβάλλοντος και Ανάπτυξης Επιχειρήσεων στην Ελλάδα. Η συλλογή των πρωτογενών δεδομένων μέσω προσωπικών συνεντεύξεων επιτρέπει να διεξαχθούν νέες και σε βάθος ποιοτικές και ποσοτικές πληροφορίες σχετικά με τις συνθήκες του επιχειρηματικού περιβάλλοντος στην Ελλάδα και να προσδιορισθούν με μεγαλύτερη ακρίβεια πιθανές πολιτικές μεταρρυθμίσεις.

Το πέμπτο κεφάλαιο δημιουργεί ένα μοντέλο επιχειρηματικής ανάπτυξης με βάση τους τύπους των επιχειρήσεων και τους θεσμους που τους επηρεάζουν. Η έρευνα διαφορετικών τύπων επιχειρήσεων και θεσμών οδήγησε σε ένα μοντέλο ανάπτυξης των επιχειρήσεων, με βάση τα χαρακτηριστικά των επιχειρήσεων και τους θεσμικούς παράγοντες που μπορούν να επηρεάσουν την ανάπτυξή τους. Πιο συγκεκριμένα, παρόλο που η διαφθορά έχει αποδειχθεί ότι βλάπτει το επιχειρηματικό περιβάλλον και συγκεκριμένες κατηγορίες επιχειρήσεων περισσότερο από άλλες, το επίπεδο της διαφθοράς και ο βαθμός που είναι επιζήμια εξαρτάται από τους θεσμούς και το νομοθετικό πλαίσιο που ισχύει σε κάθε χώρα σχετικά με τη δημιουργία, τη λειτουργία και την ανάπτυξη των επιχειρήσεων. Το μοντέλο αυτό βοηθά να εξηγήσει τις διαφορές στο επίπεδο της διαφθοράς και τις διαφορετικές επιπτώσεις της διαφθοράς σε επιχειρήσεις στο πλαίσιο διαφόρων θεσμικών παραγόντων. Το μοντέλο ανάπτυξης έχει σημασία για τις εταιρείες και το επιχειρηματικό περιβάλλον σε κάθε χώρα καθώς αναλύει το φαινόμενο της διαφθοράς και τα εμπόδια στην ανάπτυξη των επιχειρήσεων υπό το πρίσμα της Διεθνούς Πολιτικής Οικονομίας και αναδεικνύει τη σημασία των θεσμών.

ABSTRACT

Corruption has been on the focus of research and policy making in recent years. This thesis "Comparative Analysis of Corruption and Business Growth in South Europe, Eastern Europe, and Central Asia" extends the research on corruption and evaluates in detail its impact on business growth. This thesis is innovative in five main aspects. It analyses the corruption phenomenon in light of International Political Economy. It adopts and interdisciplinary approach. It focuses on Southern Europe, Eastern Europe and Central Asia, and provides case studies on Greece. It examines the heterogeneous impact of corruption on firms, based on different measures of corruption. It is based both on well-known datasets and primary data. The first introductory chapter offers a new analytical framework for the analysis of corruption and its determinants. A plethora of studies have contributed effectively to the existing knowledge and understanding of the phenomenon of corruption and its determinants. The chapter produces a new categorization of the determinants of corruption, the dynamic links between them and their evolving process. The second chapter investigates the relationship between corruption and firm performance using firm level data in South Europe, Eastern Europe, and Central Asia. It distinguishes between “administrative corruption”, and “state capture”, to evaluate the effect of corruption on businesses. At the individual firm level, corruption is not found to be negative for firm size. However, at the regional and country level, I find that firms do not internalize the aggregate costs of corruption, which remain negative and significant for all firms. The study disentangles the impact of corruption on the firm, sector, regional, and country level, and offers a new insight on the contextual effect of corruption. The third chapter investigates the relationship between corruption and firm performance in Greece using firm level data. The analysis of the effect of corruption on business growth has not been conducted for Greece and with this level of precision. It is particularly interesting to have access and gain insight to these data for approximately 550 Greek firms to be able to draw conclusions at the regional and sectoral level. Chapter four analyses new face-to-face interviews with businesses in Greece to provide a more precise picture of the business barriers they are facing. The collection of primary data through face-to-face interviews allows to acquire new and in-depth qualitative and quantitative

information on business conditions in Greece and to identify more precisely possible policy reforms. The thesis concludes on chapter five by examining the relationship between institutions and corruption to form the base of a business development model framework for firms and the institutions that affect them under a corrupt business environment. Although corruption has been shown to harm the business environment and specific types of companies more than others, the level of corruption and the degree it hampers various companies depends on institutions and the legislative framework in force in each country on the establishment, operation and business development.

Introduction

Corruption has been on the focus of research and policy making in recent years. This thesis "Comparative Analysis of Corruption and Business Growth in South Europe, Eastern Europe, and Central Asia" extends the research on corruption and evaluates in detail its impact on business growth. The phenomenon of corruption and its effects have attracted the interest of a significant part of the academic community, in recent years in political, economic and social sciences. Corruption is a complex social phenomenon characterized by many different aspects and the investigation of its causes will help forming a rigorous response to address it(Koutsoukis and Sklias, 2005). The causes and effects of corruption have acquired an international interest. Governments are particularly interested in the impact of corruption on economic development on the design of their policies. The empirical findings to date have shown that corruption constitutes a serious obstacle to economic development. The interest on corruption and its effects have motivated additional research on the impact of corruption in areas beyond economic development (Campos et al., 1999). Apart from governments and the public sector, the private sector is also interested to the phenomenon of corruption and its consequences (Hellmann et al., 2000), since many studies have shown that corruption adversely affects the performance of companies (Smarzynska and Wei, 2000). Corruption hinders economic development of a country while has negative effects on the international business environment (Boswell et al., 2003).

This doctoral thesis “Comparative Analysis of Corruption and Business Growth in South Europe, Eastern Europe, and Central Asia" covers countries of South Europe which includes Greece, Portugal, and Spain, Eastern Europe which includes Romania, FYROM, Albania, Bulgaria and Serbia and Montenegro, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia, Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine, and Russia, Central Asia which includes Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan. Corruption is a global phenomenon and is particularly common in developing countries and countries in transition to free market economies. Corruption was strongly evident in the privatization procedures followed in transition countries to market economies

and some privatization programs were strongly criticized. Generally, Eastern Europe experienced significant problems of corruption during the transition from the communist system to the free market (World Bank, 2000). The countries in transition, as recent democracies, had to build new governance systems and structures after the fall of communism (Tanzi, 1998). Mature democracies have the structures necessary to ensure a good quality of governance, while countries in transition have weaker governance and political and social structures

The thesis makes use of primary and secondary data in order to evaluate the impact of corruption on business growth. The primary data are based on a questionnaire and face-to-face interviews that I conducted on a sample of Greek firms in Athens to evaluate corruption and other barriers in doing business. This sample of 16 Greek firms offers a unique, in depth outlook on the problems firms face under a weak institutional environment in 2013-2014. I also extensively use secondary data in the thesis. My main source is the Business Environment and Enterprise Performance Survey (BEEPS), a survey conducted by the European Bank for Reconstruction and Development (EBRD) and the World Bank. In addition I also use data from Transparency International Corruption Perception Index to evaluate the level of corruption in different countries, as well as a survey from Transparency International Greece in 2013 showing the percentage of households reporting bribe payments. From 2007 the National Survey on Corruption in Greece covers apart from the public and the private sector, and respondents answer questions about corruption and informal payments that have been requested from them in their transactions (Transparency International Greece, 2008). Nevertheless, the survey does not cover the corruption between the public and private sector as it is not based on firm level data like BEEPS. The datasets used are adapted to the needs and objectives of this research, and I extracted the necessary statistical sample on the survey countries and produced new statistical variables. The thesis makes original contributions to the field, which are analysed below in terms of content and methodology, whereas the original contribution of each chapter is also stated.

This thesis is innovative in five main aspects. It analyses the corruption phenomenon in light of International Political Economy. It adopts and interdisciplinary approach. It focuses on Southern Europe, Eastern Europe and Central Asia, and provides case studies on Greece. It examines the heterogeneous impact of corruption on firms, based on different measures of corruption. It is based both on well-known datasets and primary data.

The doctoral thesis examines the effect of corruption on business development and the importance of institutions under the prism of International Political Economy. It highlights the negative effects of corruption on businesses and leads to conclusions on how to address them by improving institutions for fostering the creation, development and efficient operation of businesses. The thesis is based on the interaction between economy and politics, business and institutions, through the perspective of International Political Economy and its findings, which could be applicable and have relevance for different institutional settings and types of companies. The International Political Economy offers a more integrated approach to the study of contemporary complex social, economic and political phenomena as corruption. Based on this approach, the economy and politics on local and global levels cannot be understood independently of each other.

The thesis is based on an interdisciplinary approach, as corruption has political, social and economic aspects and implications and should be examined in all its different dimensions to produce a comprehensive and original thesis. The secondary data that are used from the EBRD-World Bank Business Environment and Enterprise Performance Survey, as well as the primary data collected through the interviews on Greek Enterprises are based on an interdisciplinary approach allowing for different political, economic and social aspects to be brought in light and analysed. This interdisciplinary approach is also highlighted on the introductory chapter of my thesis, which provides an analysis of the determinants of corruption.

The thesis focuses on corruption in Southern Europe, Eastern Europe and Central Asia. Comparative Analysis to date research on the phenomenon of corruption has mainly focused on specific

countries. The comparative study of corruption in Southern Europe, Eastern Europe and Central Asia requires systematic research as there is a lack of comparative studies on the effect of corruption on business growth in these regions. The comparative study of these regions will yield useful conclusions particularly for the countries of Central Asia, which suffer from higher rates of corruption. Business corruption will be examined comparatively in Southern Europe, Eastern Europe and Central Asia. The phenomenon of corruption should also be analysed in the context of business transactions, where economic agents want to achieve competitive advantage through corrupt activities and bribery of public officials (Argyroiliopoulos 2006).

The thesis analyses case studies for Greece. The phenomenon of corruption and its impact on business development in Greece has not been examined. The modern political and economic history of Greece presents similarities to that of Spain and Portugal, simultaneously but Greece has enough common historical data with some of the countries of Eastern Europe and increased levels of corruption (Transparency International, 2013). Even though corruption has received increasing attention in Greece over the last years, research has mainly focused on political corruption or bribes made by citizens to public sector agencies and to some private sector companies. However business corruption remains unexamined. The case study of Greece will contribute to useful conclusions for addressing the impact of corruption in Greece, which is one of the most serious obstacles to the advancement and modernization of the public sector in the country.

The thesis analyses the effects of corruption for different firms. The main studies on corruption are at the country level whereas firm level studies are rarer. The impact of corruption on the private sector and its effects on different types of businesses requires additional research, as the existing literature is still limited. The research is particularly relevant for the entry, operation and development of enterprises and for the survival of certain types of firms, especially new and small-sized businesses, which are often more affected by corruption. The conclusions from the study could have implications for policy measures to improve the institutional environment in which firms operate.

The analysis is based on both perception-based/subjective measures of corruption and experience-based measures of corruption. The experience-based question used is a direct, straightforward question asking the amount of bribes as percentage of total annual sales. The subjective measures of corruption may include some noise as generally questions on corruption will. It can be supported that experience based data can be more reliable. The use of these questions and the measurement of corruption can include some of the risks mentioned and be biased towards zero, however the combination of the questions used are the best available ways to measure corruption in the business environment to this moment. In addition the dependent variables for the measurement of business growth are firm growth and size, which are based on actual financial results and not on perception, and therefore the measurement error on these variables is limited.

The analysis is based on both primary and secondary data. In addition to the secondary data used by the EBRD-World Bank BEEPS, the thesis gathered primary data for the purpose of this analysis by face-to-face interviews on business owners that provided insights to the current problems in doing business in Greece. The thesis also provides specific insights on corruption and its effects on business development in South Europe, Eastern Europe, and Central Asia.

The first introductory chapter offers a new analytical framework for the analysis of corruption and its determinants. A plethora of studies have contributed effectively to the existing knowledge and understanding of the phenomenon of corruption and its determinants. However, the links between the different determinants of corruption, their interdependence and origins remain largely unexamined. The chapter produces a new categorization of the determinants of corruption, the dynamic links between them and their evolving process. The determinants of corruption are separated in different associated and interdependent categories of institutions, based on Williamson's Hierarchy of Institutions (2000) that distinguishes between formal and informal institutions.

The second chapter investigates the relationship between corruption and firm performance using firm level data in South Europe, Eastern Europe, and Central Asia. Comparing the different

countries, corruption appears negatively associated with firm sales at the aggregate country level. However, at the firm level the results show that firms are differently affected by corruption. This likely reflects the engagement of firms in different corrupt practices. We distinguish the effect of "administrative corruption", when firms engage in corrupt practices and bribes to government officials, from the effect of "state capture", when firms actively initiate private payments in exchange for changes in the content of government decrees that affect their business. At the individual firm level, corruption is not found to be negative for firm size. However, at the regional and country level, we find that firms do not internalize the aggregate costs of corruption, which remain negative and significant for all firms. The study disentangles the impact of corruption on the firm, sector, regional, and country level, and unveils a negative contextual effect of corruption.

The third chapter investigates the relationship between corruption and firm performance in Greece using firm level data. The value of this chapter is that the analysis of the effect of corruption on business growth has not been conducted for Greece and with this level of precision. We find particularly interesting having access to these data for approximately 550 Greek firms and be able to draw conclusions at the regional and sectoral level The data on Greece from BEEPS 2005 have not produced any reports and have not been analyzed to this moment in detail. More specifically there has been no research produced using these data extensively on Greece that can allow for any policy considerations. Occasionally brief comments were included in EBRD - World Bank reports at the country level for the purpose of comparative analysis with the other countries where the survey has been conducted. The most interesting part of this chapter however is the level of precision used. The data used are at the regional level that have not been discussed or analyzed to this moment. These data are not publicly available, only data at the country level are publicly available and were provided by the Principal Economist at the EBRD, responsible for the survey for the purpose of this research. There are household surveys mainly implemented by Transparency International Greece in the last few years and also some surveys assessing business barriers however surveys at the firm level in Greece, using not only perception but experience-based measures of corruption are indeed something novel and these data

have remained overall unexamined. The quality of this EBRD – World Bank survey and its implementation also ensures a high level of accuracy and reliability. The analysis aims to offer an understanding of administrative corruption in Greece and its impact on the business environment. A version of this chapter was published in the International Journal of Economic Sciences and Applied Research, with Professor Pantelis Sklias, and Dr. Antoine Goujard.

Chapter four analyses new face-to-face interviews with businessmen in Greece to provide a more precise picture of the business barriers they are facing. It builds on chapter three that investigated the relationship between corruption and firm performance in Greece using firm level data. The original contribution of this chapter is that it conducts a more in-depth analysis of the barriers in doing business in Greece based on the collection of a series of new face-to-face interviews with businessmen in accounting, catering, construction, and retail sector. These four sectors were found to evaluate corruption as a severe obstacle for their operation based on the 2005 BEEPS dataset and the analysis of the answers of the Greek respondents to the BEEPS survey in chapter three (Athanasouli, Goujard, and Sklias, 2012). The collection of primary data through face-to-face interviews allows to acquire new and in-depth qualitative and quantitative information on business conditions in Greece and to identify more precisely possible policy reforms.

The fifth chapter builds a business development model based on the types of businesses and institutions that affect them. The investigation of various types of enterprises and institutions resulted in a business development model, based on their characteristics and the institutional factors that may affect their development. More specifically, although corruption has been shown to harm the business environment and specific types of companies more than others, the level of corruption and the degree of damaging various companies depends on institutions and the legislative framework in force in each country on the establishment, operation and business development. This development model could have relevance to companies in each country and help to analyse the phenomenon of corruption and barriers to business development in the light of International Political Economy. This model helps explain

the differences in the level of corruption and the different effects of corruption on businesses under different institutional and country settings

CHAPTER 1

1. Determinants of Corruption

1.1 Introduction

Corruption, is generally defined as 'the abuse of public power for private gain' (Cuervo-Cazurra 2006), and can also be defined as 'an arrangement that involves an exchange between two parties (the "demander" and the "supplier"), which: a) has an influence on the allocation of resources either immediately or in the future, and b) involves the use or abuse of public or collective responsibility for private ends' (Kwok and Tadesse 2006). However, Rontos, Sioussouras, and Vavouras rightly point out that corrupt practices do not only take place for personal gain as it can also be for the benefit of one's family, relatives, friends, or political parties (Rontos et al. 2013). The prevalence of corruption is associated with "someone having discretionary power to allocate resources" (Jain 2001). This power has been reported to be in the possession of three different categories of agents: the political elite, the administrators and the legislators, while the origin of the power as well as the monitoring ability of the principal differs in these three cases (Jain 2001). Corruption is indeed apparent in all areas where there is a given authority, however the literature to date has focused mainly on public sector corruption because of data limitations in assessing corrupt practices in the private sector (Rontos et al. 2012). However, more recently the literature has come to the conclusion that the phenomenon of corruption should also be analysed in the context of business transactions, where economic agents try to achieve competitive advantage through corrupt activities and bribery of public officials (Argyroiliopoulos 2006). Corruption is found to be a multifaceted problem that affects all levels of authority and responsibility, and is not only observed at the top level (Dimopoulos 2005).

Corruption has been at the centre of research in recent years. The impact of corruption has become an international issue. Policy makers and governments are greatly interested in the effects corruption has on the economic development. Apart from the government and the public sector, the private domestic and foreign sectors are equally interested in corruption, as it has proven to be affecting

business performance from several studies based on firm level evidence (Beck, Demirguc-Kunt, and Maksimovic 2002; Fisman and Svensson 2007). Not only academics deal with the issue of corruption; NGOs and several consulting groups that provide advice on investment and risk, are occupied with this issue and provide reports on a frequent basis. Measures of corruption, that give the possibility for rigorous testing, have been formed and the methods used in their formation are continuously reviewed (Knack 2006; Olken and Pande 2012; Sequeira 2012). Moreover international organisations, political, economic and cultural leadership identify corruption as a major obstacle on growth (Pradhan 2000; Lazos 2005). International anti-corruption strategies are promoted to reduce its negative impact.

1.2 Corruption and Growth

In new empirical research the most significant and consistent finding on corruption is that lower perceptions of corruption correlate highly with increased economic development (La Porta et al. 1999; Ades and Di Tella 1999; Treisman 2000). This correlation is found to be quite robust (even after the inclusion of variables of ethno linguistic fractionalization, latitude, region, religion, culture, democracy, policy variables, trade, inequality, inflation) and it is apparent in every country over time. The reasons transition countries are distinctly corrupt, and the variation in corruption levels between them has been examined in empirical research and the findings suggest that most of the variation is explained by the somewhat lower economic development (Treisman 2003).

The World Bank supports that corruption is one of the major impediments on economic growth. The literature focusing on the relationship between corruption and economic growth is increasing, and it mainly demonstrates the negative impact of corruption on economic development, in the long-term. Corruption hampers growth through a variety of channels. Most studies have been focusing on corruption in the public sector, but in recent years the interest in the devastating effects corruption might have in the private sector as well, is raising. On the contrary, there is insufficient evidence supporting that corruption could actually be beneficial on growth, by facilitating transactions in the

bureaucratic process. There is not enough evidence even for countries that have high bureaucratic regulations (Mauro 1995).

Corruption deteriorates a country's economy by impeding the collection of taxes, hindering private investment, deterring entrepreneurship, wasting resources and obstructing the implementation of necessary regulations. Several attempts have been made to measure the economic cost of corruption, the money that is lost due to illegal practices. The World Bank confirms that corruption is one of the major impediments on economic growth, and that more than corruption totals 2.6 trillion USD every year according to the World Economic Forum, and causes an increase of 10% in business costs (Papapanagos, 2015). High levels of corruption characterise poor countries, low corruption levels are prevalent in rich countries (that shows the negative correlation of corruption to development), and diverse levels of corruption affect middle-income countries (Blackburn and Gonzalo 2009). There are several causes for the lack of economic growth and poverty in a country, and corruption is not necessarily a cause of poverty, but increased levels of corruption definitely harm development (Boswell and Richardson 2003). The social and political costs of corruption are also significant as corruption paralyses the heart of the state machine, hampers the mechanisms for the protection of human rights and jeopardizes the functioning of the welfare state (Raikos 2006).

1.3 Causes of Corruption: Review

The close relation of corruption to economic growth and the empirical findings that show it constitutes a serious impediment on growth have generated a high interest in the subject (Pradhan 2000). As corruption is generally considered to burden the economy with extensive costs and distort markets, the need to determine what causes corruption is crucial. The large amount of studies that have addressed this issue, have investigated empirically the relation between corruption and various economic and non-economic determinants. One issue that arises from the analysis of the causes of corruption is the theoretical framework on which it is based. Corruption is a phenomenon with many different angles, not only economic, political or sociological, and that makes it very difficult to specify a

proper model for its causes. At the same time there is limited consensus in the literature on the robustness of the results on the determinants of corruption to date. Often explanatory variables are found significant in some specifications, while, when other variables are introduced they lose their significance. Consequently the determinants of corruption still remain unclear.

The existing literature on corruption and its causes has based its empirical foundations on measurements of corruption either by perceptions based surveys, or surveys based on the experiences of respondents. The former are mostly based on subjective indices of how corruption is perceived, that are formed on evaluations and opinions of citizens and business people or international experts. They aim to measure the perceptions of how widespread or costly corruption is in certain countries. The latter are based on measure of corruption experiences and are conducted through surveys of business people and citizens in various countries. They try to measure the experience of the respondents of been expected to pay bribes (Treisman 2007).

The main perceptions surveys are conducted by the international civil society organisation, Transparency International (TI), which was founded in 1993 and in its anticorruption fight, conducts surveys and provides annual corruption perceptions indices (CPI), which included 180 countries in 2008. Another rating that is often used is the control of corruption index in the Worldwide Governance Indicators (WGI) published in the World Bank (WB) by Daniel Kauffman and his team. Both ratings aggregate results from various sources, country risk ratings by business consultancies, surveys of international or domestic business people and polls of country inhabitants. The WB team generated the indices biannually from 1996 to 2002 but now generates annual indices, covering 212 countries. Both measures attempt to decrease the measurement error by using averages from different sources. A cross-country rating of corruption is also produced by the Political Risk Services (PRS). It is based on assessments by its group of experts and published in its International Country Risk Guide (ICRG). The ICRG ratings are obtainable since the beginning of the 1980s. All these measures are subjective to evaluations of experts and survey respondents on how widespread or costly corruption is in certain

countries (Treisman 2007). Furthermore, perception indices have also been criticized as their results are often based on individual behaviours, nevertheless they are broadly generalized to explain development differences. An example is the CPI index that is frequently treated as a development index (Sklias et al. 2013).

The surveys based on the direct experience of corruption of the respondent, either the family or firm of the respondent have also been widely used in recent years, in the measurement and understanding of corruption. The TI 'Global Corruption Barometer' (GCB), which is conducted annually since 2003, interviewed more than 73,000 people in 69 countries in 2009. It entails public perceptions of corruption and experiences of bribery. The United Nations Interregional Crime and Justice Research Institute (UNICRI) conducted a survey on crime victims. The WB World's Business Environment Survey (WBES) is based on interviews with managers in more than 10,000 firms in 80 countries during late 1999 and early 2000. Another survey that has been widely used in the research on corruption initiated from 1999 by the World Bank and the European Bank for Reconstruction and Development (EBRD) is the Business Environment and Enterprise Performance Survey (BEEPS), based on firm-level data in transition economies, to investigate issues like corruption in the business environment. The survey is conducted on the countries of Eastern Europe and Central Asia (including Turkey), in 1999, 2002, 2005, 2009 and 2012-2014, and on a set of comparator countries of Western Europe and East Asia in 2004.

1.4 Chapter Outline

This chapter will investigate the determinants of corruption, and the reasons of cross-country variation, as examined in the empirical research using perception-based surveys and experience-based surveys to date. In the analysis, the determinants of corruption will form part of different but interdependent categories. The categorisation aims to produce a more clear understanding of the determinants and the existing dynamic links between them. Following the review of the literature on the causes of corruption (Treisman 2007), of the causes of cross-national variation (Lambsdorff 2005), and of

cross-national indicators (Knack 2006), the measurements of corruption used and the issues of data analysis interpretation deriving from the use of these surveys, as well as their limitations, will be discussed in an effort to interpret the causes of corruption more accurately. This will aim to an interesting, more accurate and deeper examination of the determinants of corruption and will shed light to areas of research, on corruption, its determinants, and the links between them that require further investigation.

The literature to date on the causes of corruption is either analysing its causes in an order based on the significance of the empirical results, or in the most extensive reviews, differentiates the causes in economic, political and sociological factors or even separates them based on the sources of the results, the types of surveys used (Treisman 2007). While a plethora of studies have contributed effectively to the existing knowledge and understanding of the phenomenon of corruption and its determinants, the links between the determinants, their interdependence and origin remain largely unexamined. The first case of analysis of several causal variables and statement of the most significant results provides isolated determinants of corruption that are not linked in a dynamic environment. The separation, used by Treisman (Treisman 2007), based on the sources of the data, whether perception-based or experience-based surveys, needs to be critically assessed since the construction of various perception-based indices is also based on data from experience-based surveys. These issues will be addressed further later on. However, this separation, even if justified, does not provide a linked understanding of the determinants.

The separation in economic, political and sociological factors, while it provides a framework for the analysis of the observed corruption, ignores other components, links between the determinants and their evolving process, and places the causes in “still” categories. There appears to be an insufficient connection between empirical and theoretical analysis. There are observations of the causes of corruption but not connected theoretically to form a dynamic ‘real’ environment that provides a deeper understanding of the determinants as interdependent.

The analysis of corruption and its cross-country variation, as observed in the existing empirical literature, will benefit from the separation of its determinants in three associated categories of policies and institutions that are interdependent and complete one another. The categories form a base for a more clear understanding and interpretation of the environment that allows for corruption, and its specific components that are related to the varying levels of corruption. The categorisation is aimed at the specific context of the analysis of corruption and its determinants.

Firstly, I distinguish between Constitutional Characteristics (C), Exogenous Conditions, such as geography (Ex), Institutions (I) and Policies (P). Institutions are examined as formally arisen from Constitutional Characteristics (C) and Exogenous Conditions (Ex) that allow or necessitate their existence (also evolution from norms and shared strategies). Policies (P) are implemented by the various formed institutions. There is a durability component that is decreased through the political process. There is a strong durability related primarily to Constitutional Characteristics, and then to Institutions while Policies are more prone to change. Exogenous Conditions have varying durability that may affect differently the formation of Institutions. This categorization is based on Williamson's Hierarchy of Institutions (Williamson 2000) and applied to explain the determinants of corruption ; Norms depict the informal institutions, Constitutional Characteristics depict the 1st category of formal institutions that define the institutional framework, Institutions depict the 2nd category of formal institutions that define the rules of the game, and Policies depict the 4th category of institutions based on Williamson that have shorter horizon and define marginal conditions for the function of markets. A main difference is that in this categorization the role of informal institutions is of primary importance and Constitutional Characteristics, Institutions, and Policies are also subcategorized in Rules and Norms, to emphasize the role of informal institutions in shaping the formal institutional environment and the success or failure of different policies.

Secondly, I subcategorise Constitutional Characteristics, Exogenous Conditions, Institutions, and Policies in Rules (R) and Norms (N), by examining their formal and informal characteristics, and the level of internal or external parameters related to their nature and the outcomes for non-compliance.

Finally, I subcategorise Constitutional Characteristics, Exogenous Conditions, Institutions and Policies in Political, Economic or Sociological factors. The categories and subcategories are linked and affect one another. Constitutional Characteristics, Exogenous Factors, Institutions and Policies are firstly theoretically explained and subdivided in the two categories. Then they are examined in the specific context of corruption.

1.5 Constitutional Characteristics, Exogenous Conditions, Institutions and Policies

i. Rules and Norms

ii. Political, Economic and Sociological Components

1.5.1 Constitutional Characteristics

Constitutional Characteristics (C) are the specific components of a country's institution, mostly written, that entail the fundamental political principles for the functioning of the government.

i) The Constitutional Characteristics are Rules, with formal characteristics.

ii) They have an overlap of Political and Economic Components because of property rights.

Constitutional Characteristics are important overall as they are the base for the creation and development of Institutions that lead to the implementation of Policies.

Constitutional Characteristics (C) as Determinants of Corruption

Type of Electoral System (C) (Rule) (Political)

Constitutional Characteristics (C) have been analysed in the literature of corruption and some specific C have been suggested to affect corruption. The type of electoral system has been argued to

have an impact on corruption levels. It is an important constitutional differentiation whether in democratic countries the president is directly elected from the citizens with substantial power or it is elected through the parliament. Panizza (2001) found higher corruption linked with the presidential systems, in which government ministers are appointed and accountable to the President, in comparison to parliamentary systems where ministers are accountable to the Parliament and appointed by the Prime Minister. Kunicova and Ackerman (Kunicova and Rose-Ackerman 2005) support this finding. They argue that presidential systems and centralised power over the government can create more opportunities for rents. They point out that legislative bodies have less power in presidential systems than in parliamentary ones, as their actions must be in accordance with the president, for legislation to be passed. Their empirical study, based on a large cross-country dataset, shows that presidentialism *per se* is related to higher corruption and that the levels of corruption increase if the extent of the president's power increases.

1.5.2 Exogenous Conditions

Exogenous Conditions (Ex) are conditions of the past or present, that are unaffected by the present political process, and can exist independently. In this research I identify as Ex, older institutions, their legacies and their durability, as well as country specific characteristics as the existence of natural resources and the geographic position (physical world). The Ex together with the C affect the formation of Institutions and Policies. For example, the existence of natural resources may lead to institutional formations that deal with their exploitation and related policies. The Exogenous Conditions may also affect the Constitutional Characteristics or lead to their amendment.

i) Exogenous Conditions (apart from the physical world) can be either Rules or Norms.

ii) They can have either Political, Economic Components or Sociological Components or a combination.

Exogenous Conditions (Ex) as Determinants of Corruption

i) Older Institutions

Democracy (Ex) (Rule) (Political)

The relationship between democracy, the electoral participation and corruption has been addressed by many researchers. Treisman finds a significant relationship between corruption and democracy in a sample of 64 countries that have had uninterrupted democracies since 1950 (Treisman, 2000). His argument is based on the "longevity of democracy"- a long period of exposure to democratic regimes decreases corruption levels, however the current levels of democracy do not appear to have a significant impact on corruption. Montinola and Jackman (Montinola and Jackman 2002) implement a broad measure of democracy based on the freedom of the opposition parties and the legislative effectiveness. They find that "medium" levels of democracy do not lower corruption and only after a specific threshold democracy is found to impede corruption. The partial plot for the coefficient of democracy shows the possibility of a non-linear effect of democracy. Their 10-point scale of democracy indicates no effect on corruption for the 0-6 values but higher index values are related to lower corruption and they conclude that democracy has a nonlinear effect on corruption. Competitive political structures (based on the possibility of power turnover, size of the electorate, election process) lower corruption after they reach a certain level. Manow (Manow 2005) provides significant results on this relationship by using topical data. Based on his research corruption appears somewhat more widespread in medium-democratic regimes than in completely authoritarian regimes. However, after reaching a certain threshold the democratic regimes are found to lower corruption (Lambsdorff 2005).

Corruption may therefore be a little lower in dictatorships than in countries partially democratized, but in fully democratised countries (based on the type of elections and the effectiveness of the legislative body) the corruption experienced is considerably lowered. The findings imply that the transition to democracy may generate more corruption at the first stages, but after competitive democratic political structures are developed and established corruption levels will be decreased.

However, the small difference in corruption perception levels in partially democratised and authoritarian regimes could be influenced by the larger availability of information and disclosure of corruption in the newly democratised states (Montinola and Jackman 2002). Based on the non-linearity between corruption and democracy they stress the importance of examining regime types in relation to corruption in continuous and not dichotomous time periods.

Totalitarian Legacies (Ex) (Rule) (Political)

Levin and Satarov (2000) support that the transition from a totalitarian regime creates many rent opportunities, as the state authority is largely withdrawn and new ways of control and compliance are not implemented. They connect the higher levels of corruption in Russia with its socialist history and the difficulties that occurred in the first years of transition.

Treisman (2003), using perception-based surveys, examines whether post-communist countries have higher corruption and the reasons of post-communist cross-country variation in corruption levels. His findings show that corruption is higher in these countries due to lower economic growth, while the reasons of varying corruption between them is mainly explained by reasons existing before the transitions process: the 1989 level of economic development and the share of protestants. Although he examines the years under communism and limited democratic history, as causes of the variations, he does not produce clear results on their impact.

ii) Physical World

Natural Resources 1. (Ex) (Economic) or 2. (P) (Rule+Norm) (Economic)

The origin of natural resources is independent of Rules and Norms, however the resources are related to Policies if they are being exploited and then the conditions of exploitation would be affected by Rules and Norms. Sachs and Warner (1995) examine the cross-country variation of growth in countries depending on the existence of natural resources. They find that the existence of natural resources has a significant inverse effect on growth, after controlling for a large set of variables that could be interpreted by the extraction of rents associated with abundant natural resources.

Lane and Tornell (1995) supported that countries rich in natural resources are more affected by rent seeking behaviours and corruption, as government officials are trying to extract rents from the exploitation of the resources. The cost of natural resources provision can be substantially increased from the extraction cost.

iii) Country Specific Characteristics

Ethno linguistic Fractionalisation (Ex) (Norm) (Sociological)

Ethno Linguistic fractionalisation has gained an increased interest due to large cross-border movements. It seems to be related to corruption in various ways (Shleifer and Vishny, 1993). Mauro (Mauro 1995) and Svensson (2000), support that the level of corruption increases in societies with many ethnic groups. However, these results are based on perception-based measures of corruption and Olken (Olken 2009) suggests that corruption perception actually increases when there is a lack of trust (based on different ethnic groups) even if actual corruption does not. Using a measure of actual corruption and perception based measures of corruption for road projects across Indonesian villages; he finds that ethnic fractionalization correlates with corruption perceptions but that it is unrelated to actual corruption. This finding corroborates the initial claim of Bertrand and Mullanaithan (Bertrand and Mullainathan 2001) that perception based measures of corruption are problematic to use as dependent variables, as they may reflect the propensity to report corrupt behaviours rather than the actual level of corruption.

1.5.3 Institutions

Institutions (I) have been largely examined as determinants of corruption. Institutions are "humanly devised constraints that structure political, economic and social interactions" (North 1991).

i) Institutions have formal characteristics and therefore are Rules (R).

ii) Institutions can be subcategorised in Economic and Political Components.

Institutions (I) as Determinants of Corruption

Democracy (I) (Rule) (Political)

Political institutions affect corruption on a local and global level, whereas their quality is also conditional on the level of corruption and the ability of to combat corruption (Katsios 2012). The findings on the effect of democracy on corruption vary depending on the way democracy is measured. Bohara et al. (Bohara, Mitchell, and Mittendorff 2004) examine the effect of democracy using a compound measure, based on the public's repetitive participation in competitive elections that separates between less or more democratised states. Their results show the importance of democracy in reducing corruption and strengthening the controls of corruption. Strengthening government effectiveness, and a strong democratic political system have also been found to be particularly important in reducing corruption in the Mediterranean and Balkan region (Rontos et al. 2012).

Shleifer and Vishny (Shleifer and Vishny 1993) indicate that the quality of government institutions is influencing corruption levels and weak governments are linked to high corruption. Treisman (Treisman 2000) argues that the current levels of democracy *per se* are not significantly related to the decrease of corruption, and that a decline in corruption is only succeeded if combined with a long period of democracy, as was mentioned earlier. Herzfeld and Weis (2003) find that political rights and liberties significantly lower corruption. In line with this research, Mitsopoulos and Pelagidis (2015) discuss the recent empirical findings on the type of political systems and corruption, and conclude that the separation of powers, and the representation of minority interests, typically associate with democracies, can create the necessary safety nets against corruption.

Cultural Differences (I) (Norm) (Sociological)

Sklias, Koutsoukis and Roukanas (2013) describe culture as an endogenous driver of economic development. They view culture encompassing societal values, and principles, as well as civilization and heritage background that can significantly affect the structure and success of development specific policies. Rontos et al. (2013) state that the existence of corruption presupposes certain conditions

related to public power and morality, and therefore the analysis of its determinants should also try to capture individual aspects and the societal context apart from economic, political, social, and other exogenous factors to the behavior and moral of citizens.

Tanzi (Tanzi 1994) suggests that there is a greater likelihood for government officials to engage in corrupt practices and do "favours" for relatives and friends in societies where more personalised relationships exist, where economic decisions are affected by personal relations. Recent experimental evidence confirms the role of cultural differences. Based on experiments run in Australia (Melbourne), India (Delhi), Indonesia (Jakarta) and Singapore, Cameron (Cameron et al. 2009) finds that there are cultural differences in the propensities to engage in corrupt behaviour and that there is also variation in the propensities to punish corrupt behaviour across cultures. The magnitude of the differences across countries is large. The Indian subjects were the most likely to offer bribes, the most likely to accept bribes, and the least likely to punish corruption. For example, 92.50% of the subjects offered bribes in India versus 79.17% in Indonesia.

Political Competition (I) (Rule) (Political)

Political competition (measured by "the existence of free and fair elections and the effective power of the elected legislators") appears to have a significant effect in lowering corruption after a certain threshold. On the research of Montinolla and Jackman (Montinola and Jackman 2002) corruption appears to be slightly higher in the majority of cases where political competition is moderate while beyond a threshold higher competition levels are related with significantly lower corruption.

Decentralisation (I) (Rule) (Political)

The decentralisation of government power and its effects on corruption has been examined in several studies. Some of these studies use corruption and the size of the country (measured by total population) to provide evidence that decentralisation can decrease corruption.

Huther (Huther and Shah 1998) and Fisman (Fisman and Gatti 2002) measure decentralisation by using a share of subnational expenditure on the total public spending and detect that in their 80

countries sample, that the index is positively correlated with certain measures of good governance. In contrast to their methodology, Knack and Azfar (Knack and Azfar 2003) warn against the use of these findings. They demonstrate that the correlation of corruption and population size may stem from problems in the sample selection. Using a larger sample of countries, the correlation of corruption and population ceases to be significant.

Treisman (Treisman 1999) examines the effect of decentralisation by separating between centralised and federal states instead of regressing corruption on total population. He finds significant results that centralised states are less corrupt than federal ones. Though he reports that these results become non significant when other variables are added. Goldsmith (Goldsmith 1999), Kunicova (2002) and Kunicova and Rose-Ackerman (Kunicova and Rose-Ackerman 2005) also report that decentralisation reduces corruption even when controlling for GDP per head. However, Gerring (Gerring and Thacker 2004) supports that federalism may increase of corruption. Burgess (Burgess et al. 2012) also finds that increases in the number of political jurisdictions in Indonesia led to an increase in corruption and illegal deforestation across Indonesian districts. Finally, Bohara (Bohara, Mitchell, and Mittendorff 2004) examined the effect of federalism on corruption but did not find robust evidence that federalism raises corruption. Therefore the empirical evidence of the relationship between federalism and corruption is mixed.

Free Press (I) (Rule) (Political)

Free and widely read press appears to be significant in the decrease of corruption (Treisman, 2007). Ahrend (2002) suggests a theoretical model according to which education and press freedom are complementary to reduce corruption. If the capacities of civil society to oversee government officials are well developed, education decreases corruption, whereas it may lead to higher corruption if civil monitoring is low. Investigating a panel of 18 countries over the 1980-1997 period, he finds strong empirical evidence that a lack of press freedom leads to higher levels of corruption. Brunetti and Weder (Brunetti and Weder 2003) also demonstrate that free press effectively decreases corruption by using

variables of regulations and laws that influence media politically or economically, based on an index of press freedom constructed by the Freedom of House. They support that press freedom poses barriers for corrupt practices by exposing corrupt practices of government officials. Lederman et al. (Lederman, Loayza, and Reis Soares 2001) affirm in their study the negative relationship between press freedom and corruption. Adsera et al. (Adsera, Boix, and Payne 2003) measure the effect of "free circulation of daily newspapers" by combining measures of newspaper circulation with democratic liberties and find significant results. More recently, Ferraz and Finnan (Ferraz and Finan 2008; Ferraz and Finan 2011) document that disclosure of information on corrupt activities significantly decreases corruption, and that this effect is magnified when local media divulge broadly the information about corrupt practices.

The Judiciary (I) (Rule) (Political)

The World Bank (1997) concentrates on the importance of the quality of the judiciary (the court system responsible for the application and interpretation of rules) on corruption. It constructed an index of predictability of the judiciary that significantly affected the level of corruption in 59 countries, after controlling for other variables. Similarly, Ades and Di Tella (Ades and Di Tella 1996) find a correlation between independent judicial systems and corruption.

1.6 Policies

i) Policies (P) are related to the existence and evolution of institutions, may have formal or informal characteristics and can be Rules or Norms. However irrespectively of their origin, the implementation and compliance with their conditions is affected by Norms.

ii) Policies can be either Economic or Political.

Policies (P) as determinants of corruption

Economic Development Policies (P) (Rule) (Economic)

Recent evidence from a large cross country study shows that economic development is an important determinant of corruption, however it is mostly positively associated with the reduction of

corruption in more economically advanced countries, whereas in less economically advanced countries the political system is particularly important (Rontos and Vavouras, 2015)**.** Similarly, another study finds that the adverse effects of corruption are more difficult to circumvent in low income countries, because of poverty and large income inequalities, whereas the positive impact of globalisation on transparency is only significant for middle income and high income countries (Lalountas et al. 2011).

Overall, in new empirical research the most significant and consistent finding on corruption is that lower perceptions of corruption correlate highly with increased economic development (La Porta, et al., 1999; Ades and Di Tella 1999; Treisman 2000). This correlation is found to be quite robust (even after the inclusion of variables of ethno linguistic fractionalization, latitude, region, religion, culture, democracy, policy variables, trade, inequality, inflation) and it is apparent in every country. The reasons transition countries are distinctly corrupt, and the variation in corruption levels between them has been examined in empirical research and the findings suggest that most of the variation is explained by the somewhat lower economic development (Treisman 2003).

However, these studies focus on the relationship between economic growth, as an outcome, and corruption and thus do not provide a framework for analysis of the policies that are related and lead to growth, and that therefore could be altered. The examination of economic growth, as an outcome, and corruption has limited implications for countries that aim to reduce corruption. For the purpose of this analysis I identify economic growth as economic development policies, and turn the focus from outcome to collective action.

Government Size (P) (Rule) (Economic)

A very large recent cross country study shows that government effectiveness is one of the most important determinants of corruption and that improving the quality of government effectiveness can significantly reduce corruption (Rontos and Vavouras 2015).

The possibilities for corrupt practices could be increased in governments with large public sectors bureaucracies, with extensive regulation. Indeed, an increase in government size provides more

opportunity for political rent seeking, making the politicians and bureaucrats more likely to be corrupt. However, the effect is theoretically ambiguous as a larger government may promote a system of checks and balances and strengthens accountability, and may thus reduce corruption.

The empirical evidence on the effect of government size on corruption has been mixed. Montinolla and Jackman (2002) examine whether larger governments (measured by the share of GDP consumed by government) are associated with higher corruption. Their findings do not provide any support of the fact that large governments per se are neither necessary nor adequate causes of corruption, but of the opposite. Larger government seem to be related to lower corruption, though as the government size increases the effect is decreased. When they added a control variable for per GDP per capita, the relationship between corruption and government size ceased to exist. Tanzi (Tanzi and Davoodi 1997), La Palombara (1994) and La Porta (La Porta et al. 1999) also argue that less corruption is related to a decrease of the public sector size. More recently, Billger and Goel (Billger and Goel 2009), using quantile regressions, document a robust association between government size and reduction in corruption at almost all degrees of corruption. By contrast, Goel and Nelson (Goel and Nelson 1998) empirically show that the size of the state and local governments in the United States has a strong positive influence on corruption. Similarly, Olken (Olken 2009) demonstrates that government transfer program provide opportunities for corruption. As a result, recent studies have turned to examine under which conditions government size may reduce or increase corruption (e.g. Kotera et al. 2010).

Public Sector Pay (P) (Rule) (Economic)

Higher economic development has been found from a large number of studies to increase the control of corruption. At the same time it has been argued that economic development is associated with higher public wages and that better paid public officials will be more professional and less corrupt.

There have been several studies supporting that low paid public officials will be more likely to engage in corrupt practices, than higher paid officials, as the incentives to supplement their income increase. Rijckeghem and Weder (Van Rijckeghem and Weder 2001) use the ratio of public sector wages

to manufacturing wages to examine the effect of relative public-sector remuneration on corruption. Their results show the relationship between relative wages and corruption to be significant and suggest that corruption levels can be eliminated by a large increase in public-sector wages. However, the analysis of this relationship, in many other studies produces insignificant or ambiguous results. Treisman (Treisman 2000) and Manow (Manow 2005) examined the ratio of average public salaries to per capita GDP, while they controlled for other variables, and displayed mixed results, in most cases insignificant depending on which measure of corruption was used and which control variables were added.

Montinolla and Jackman (2002) examine whether the prevalence of corruption is lower in the countries with greater economic development in which higher wages in the public sector lower the incentives for bribes. They analyse economic development (measured as GDP per capita) as a proxy for public sector remuneration because of the lack of adequate data on public remuneration. Their study lies on the hypothesis that in economically developed countries public wages will be higher. Their findings show that corruption decreases in countries where economic development increases. This relation accords with the anticipation that higher wages in the public and the private sector, linked to increased economic development, also reduce the incentives for corrupt behaviour.

The examination of the impact of civil service pay, is in the centre of the policy debate and particularly interesting in transition economies where the public sector salaries, during socialism, were higher than the ones in the business sector, but afterwards dropped from their previous levels and fell in relation to the business sector (Rose-Ackerman, 1999). Kraay (Kraay and Rijckeghem 1995) and Haque and Sahay (1996) also suggest that lower public wages in comparison to business wages could result in higher corruption. The International Monetary Fund's Fiscal Affairs Department (1995) stresses out the importance and the risks of an increase in corrupt practices stemming from a decrease of civil wages.

Meritocratic Employment (P) (Rule-Norm) (Sociological)

Evans and Rauch (Evans and Rauch 2000) have examined the effect of competitive wages, merit-based recruitment, internal promotion and career stability, in the improvement of the function public

sector, in 35 developing countries. Based on Weber (1968) that supported that merit based recruitment – via competitive examination – is among the most important institutional characteristics of a bureaucracy. They support that these structural characteristics of government bureaucracies will determine their effectiveness. In their index of merit-based recruitment, government officials that have a university degree or have entered the public sector through formal examinations, have higher values. They provide some evidence that merit-based recruitment is important in increase of bureaucratic performance and the reduction of corruption. Their research produces unclear results on the impact of competitive wages on bureaucratic efficiency. The index is related to lower corruption levels, after controlling for income.

Inflation (P) (Rule) (Economic)

Some studies have investigated the connection between perception of corruption and inflation. Braun and Di Tella (Braun and Di Tella 2004) find that corruption increases because of the high inflation variability. They show robust results in 75 countries sample. They form a principal-agent model of auditing and investment and find that a varying inflation will increase the difficulty in controlling and overseeing the agent's behaviour because of information problems. The model is general and can apply to the private and public sector, the agent could be someone hired to run a firm by its owners or a public employee and the principal a higher public executive. Thus, variable inflation would create barriers in monitoring public spending and increase corrupt practices. The model suggests that higher inflation variability can result in higher corruption in equilibrium. Treisman (Treisman, 2007) uses the dataset of Braun and Di Tella (Braun and Di Tella 2004) and finds significant results for inflation and concludes that unpredictable inflation appears to be related to higher perceptions of corruption.

Regulation: Trade Openness and Competition Policies (P) (Rule) (Economic)

Krueger (Krueger 1974) identifies trade restrictions as a substantial cause for rents. These restrictions make the acquisition of trading licenses more scarce and therefore raise their importance

and the incentives for bribes. Consequently the protective policies of domestic industries from foreign competition will increase the incidence of corruption.

The barriers to entry and their impact on corruption have been investigated in some studies. Djankov et al. (Djankov et al. 2002) find that strong regulation of entry is mainly related to a higher corruption and a wider unofficial economy. Broadmann and Recanatini (Broadman and Recanatini 1999) examine the impact of severe barriers to entry in the transition economies of Europe and Central Asia and find that they are linked to higher corruption. Treisman (Treisman 2000) observes that state intervention has a positive effect on corruption but as more explanatory variable are included the bivariate relationship loses significance.

Rose-Ackermann (1978) was the first to suggest that corruption can be reduced by the creation of competition at the level of the bribed/corrupt public official. Ades and Di Tella (Ades and Di Tella 1999) show that open economies (openness measured as a sum of imports and exports) are linked with significant lower corruption levels. They support that it is less likely corrupt practices to be sustained in the prevalence of perfect competition. They conduct a cross-section analysis and find that corruption is higher in countries where businesses are characterised by higher rents. Finally, they show that higher corruption occurs in economies with trade barriers, where domestic businesses are less exposed to global competition, or where there are only few dominant businesses.

Economic freedom restrictions imposed by governments are prone to decrease competition and consequently increase the incentives for corrupt practices (Lambsdorff 2005). Several other studies on the causes of corruption have also addressed the issue of competition in the private sector, and found that a low competition can increase corrupt behaviour. Economic freedom restrictions imposed by governments are prone to decrease competition and consequently increase the incentives for corrupt practices (Lambsdorff 2005).

1.7 Conclusion

This chapter offers a new analytical framework for the analysis of corruption and its determinants. A plethora of studies have contributed effectively to the existing knowledge and understanding of the phenomenon of corruption and its determinants. However, the links between the different determinants of corruption, their interdependence and origins remain largely unexamined. The chapter produces a new categorization of the determinants of corruption, the dynamic links between them and their evolving process. For the scope of the analysis, the determinants of corruption were considered as parts of different but interdependent categories. The chapter aims to extend the understanding of the determinants of corruption and the dynamic links between them. Firstly, I distinguish between Constitutional Characteristics, Exogenous Conditions, Institutions, and Policies. Institutions are examined as formally arisen from Constitutional Characteristics and Exogenous Conditions that allow or necessitate their existence. The literature to date on the causes of corruption is either analysing its causes in an order based on the significance of the empirical results, or in the most extensive reviews, differentiates the causes in economic, political and sociological factors or even separates them based on the sources of the results, the types of surveys used (Treisman, 2007). The chapter contributes to the existing knowledge and understanding of the phenomenon of corruption and its determinants, the links between the determinants, their interdependence and origin.

CHAPTER 2

2. Corruption and Firm Size: Disentangling the contextual effect of corruption

2.1 Abstract

This chapter investigates the relationship between corruption and firm size using firm level data. Corruption is negatively associated with firm sales and performance at the country level. However, at the firm level the results show that firms are differently affected by corruption. This likely reflects the engagement of firms in different corrupt practices. We distinguish the effect of "administrative corruption", when firms engage in corrupt practices and bribes to government officials, from the effect of "state capture", when firms actively initiate private payments in exchange for changes in the content of government decrees that affect their business. Some firms may extract benefits from state capture, and at the individual firm level, corruption could be, in some cases, profit maximizing. However, at the regional and country level, we find that firms do not internalize the aggregate costs of corruption, which remain negative and significant for all firms. Through the analysis of the contextual effect of corruption, the study disentangles the impact of corruption on the firm, sector, regional, and country level. It clarifies the reasons for mixed findings on the effects of corruption at the firm level, while it establishes the importance of the sector and regional environment on firm size and performance, and unveils a negative contextual effect of corruption.

2.2 Introduction

Corruption is considered as a major impediment to economic development and growth (Hellman et al. 2000; Olken and Pande 2012). The interest on the impacts of corruption has become an international issue; policy makers and governments attempt to assess the effects corruption has on the economic development, in the forming of their policy. This chapter contributes to the empirical literature by analysing the impact of different forms of corruption on firm performance using multiple

levels of aggregation of the corruption measures. It distinguishes administrative corruption from state capture and disentangles the firm level impact of corruption from its contextual effects.

Corruption constitutes a serious impediment on economic growth at the country level and from a cross border perspective. However, at the firm level, profit maximizing firms would be expected to decide an optimal amount of corruption that allow them to maximize their profits, while the contextual effects of corrupt practices on firm performance could be either positive or negative, depending on whether the negative spillovers of corrupt practices dominate the first potential positive effect. Hence, the effect of corruption on firm performance is ultimately an empirical question. This chapter analyses the relationship between corruption measured at different levels; firm, industry, region, or country and firm performance. It is related to two main strands of literature.

The first strand of literature identifies corruption as a potential barrier to economic growth. It has been supported that the discretionary power of public officials leads to a tactic selection of projects based on the ability to extract rents. Consequently, corruption and rent seeking become integral parts of economic governance and more difficult to tackle (Ngo 2008). Corruption may deteriorate a country's economy by deterring entrepreneurship, wasting resources, hindering private investment, impeding the collection of taxes, and obstructing the implementation of necessary regulations. Several attempts have been made to measure the economic cost of corruption due to illegal practices (Boswell and Richardson 2003; Hellman and Kaufmann 2001; OECD 2011).

The second strand of the empirical literature reports contrasting results. It has been supported that in some cases, and when the regulations are weak, corruption can speed up the wheels of commerce and have a positive impact in the development of firms, by giving them the possibility to overcome bureaucratic barriers, and surpass timely processes (Wei 1998). Firms may thus engage in corrupt practices in an attempt to promote their short-term growth. A positive correlation of the tendency for firms to pay bribes and the time that is wasted in bureaucratic procedures has been found (Kaufmann and Wei 1999). However, there is insufficient evidence which supports that corruption could

actually be beneficial on growth, by facilitating transactions and the bureaucratic process, even for countries with high bureaucratic regulations (Mauro 1995).

The chapter builds on this existing literature and makes three main contributions. First, this chapter examines the impact of corruption on firm sales performance in South Europe, the Balkans and Turkey, Central Asia and Russia, Central Europe and the Baltics, and Germany. As comparative studies in these regions have not been systematically realized, the comparative analysis of corruption in transition countries in contrast to South Europe and Germany allows drawing new policy conclusions. Second, most of the existing literature on corruption has focused on the relationship between growth and corruption at the country level. Firm-level studies examining the different effects of administrative corruption and state capture on firm performance are still rare[1]. Firms can initiate corrupt practices to influence the content of government regulations, and the degree to which firms are affected by these activities varies. Thus, it is important to distinguish the impact of firm decisions in a given legal and institutional environment from the overall or contextual impact of corruption. Finally, this chapter examines the degree that firms of different size, ownership and origin engage in corrupt practices and the effects that these practices have on firm performance.

Our empirical research relates different measures of corruption, firm sales, and growth across 30 countries in 2004 and 2005. Our analysis is mainly descriptive. Although we do not address all the omitted variable biases at the firm level, we identify some stylized facts about the association between different forms of corruption, firm sales, and growth. The relationship between administrative corruption at the firm level and firm sales appears negative. However, this is not the case for the measure of state capture that is either positively correlated or uncorrelated with firm sales. Moreover, we do not find a relationship between firm level corruption and growth. This pattern changes radically when we measure the extent of corruption at the regional level or at the industry level. We find that the

[1] Recent counter examples include (Bertrand et al. 2007), (Fisman and Svensson 2007), (De Rosa, Gooroochurn, and Gorg 2010). (Olken and Pande 2011) review this recent literature.

extent of administrative corruption and state capture, among firm peers, are always negatively associated with firm sales, and that these associations are more negative than the ones based on the firm's own measure of corruption. This strategy allows disentangling the contextual effects of corruption from the effects of the firm's own corruption. It underlines that firm-level corruption is an endogenous decision that could bring individual benefits. Thus, estimates using firm level measures of corruption are likely to be biased towards zero. An alternative interpretation is that there are important spillovers from firm corrupt behaviours: firms do not internalize the costs of their own corruption for other firms.

Finally, we investigate the relationship between corruption and sales for different types of firms. The correlations present some interesting patterns, which identify the firms most likely to be affected by corruption. We estimate that firms respond differently to business barriers and that corruption's detrimental effect on firm growth is significantly affected by the size, length of operation and origin, as well as the ownership of the company. Foreign, de novo and medium size firms appear the most affected by both administrative corruption and state capture.

The chapter is organized as follows. The next section discusses the features of the sample and the measures of corruption that are relevant for the analysis. Section three describes the data construction and some summary statistics. Section four describes our main empirical findings on the contextual effect of corruption. Section five describes the heterogeneity of the impact of corruption on firm sales. Section six concludes.

2.3 Sample and measures of corruption

2.3.1 Data and Sample

The existing literature on corruption and its causes has based its empirical foundations on measurements of corruption, either by perception-based surveys, or surveys based on the experiences of respondents. The former are mostly based on more subjective indices of how corruption is perceived,

that are formed on evaluations and opinions of citizens and business people. The latter are based on measures of corruption experiences and are conducted through surveys of business people and citizens in various countries. They try to measure the experience of the respondents that are expected to pay bribes (Olken 2006; Treisman 2007).

This chapter uses the experience based survey BEEPS[2], based on the experience of managers, a joint initiative of the European Bank for Reconstruction and Development and the World Bank. The survey is founded on face-to-face interviews with firm owners and managers and it has been widely used in the research on corruption, since 1999. It is based on firm-level data in transition economies, to investigate issues like corruption in the business environment. The survey is conducted on the countries of Eastern Europe and Central Asia (including Turkey), and on a set of comparator countries of Western Europe and East Asia in 2004 and 2005.

We use the two rounds of the BEEPS 2004-5 survey[3], the round including the transition countries and the round conducted in the group of comparator countries, Western Europe and East Asia. The survey is conducted at the establishment level. The establishments with 10,000 employees or more, and the firms that started to operate in the years 2002, 2003 and 2004, were not included in the sample. The sample covers a vast range of firms: mining and quarrying, manufacturing, construction, transport, storage and communication, wholesale and retail, real estate, renting and business services, hotels and restaurants and other services (Synovate 2004a; Synovate 2004b; Synovate 2005).

The analysis is based on the countries of South Europe, Eastern Europe, and Central Asia. We separate the countries of Eastern Europe, and Central Asia in smaller regional groups based on their geographical location; South Europe that includes Greece, Portugal and Spain, South-Eastern Europe,

[2] (EBRD 2005)

[3]The description of the data is largely based on the report that was prepared for EBRD and the World Bank by Synovate (Synovate 2004a; Synovate 2004b; Synovate 2005), the firm responsible for the implementation of the BEEPS and the provision of data.

Central Europe and the Baltics, Eastern Europe and the Caucasus, and we also include separately, Russia, Turkey and Germany as other comparator countries[4]. The number of observations is 12,508 across 30 countries.

2.3.2 Measures of corruption

Corruption is generally defined as 'the abuse of public power for private gain' (Cuervo-Cazurra 2006), and can also be defined as 'an arrangement that involves an exchange between two parties, the "demander" and the "supplier", which has an influence on the allocation of resources either immediately or in the future, and involves the use or abuse of public or collective responsibility for private ends' (Kwok and Tadesse 2006). The prevalence of corruption is associated with 'someone having discretionary power to allocate resources' (Jain 2001). This power is in the possession of three different categories of agents: the political elite, the administrators, and the legislators. The monitoring ability of the principal differs in each of these cases (Jain 2001).

Measures of corruption, that give the possibility for rigorous testing, have been formed and the methods used in their formation are continuously reviewed (Olken and Pande 2011; Knack 2006). Corruption, is generally defined as 'the abuse of public power for private gain' (Estrin, Bevan, and K. 2004; Cuervo-Cazurra 2006), and can also be defined as 'an arrangement that involves an exchange between two parties (the "demander" and the "supplier"), which: a) has an influence on the allocation of resources either immediately or in the future, and b) involves the use or abuse of public or collective responsibility for private ends' (Kwok and Tadesse 2006).

Corruption should not only be examined as the interaction of the state with firms, but also as the exertion of influence from firms to public officials (Kaufmann 2005). In this chapter corruption will be

[4] South-Eastern Europe includes: Romania, FYROM, Albania, Bulgaria and Serbia and Montenegro. Central Europe and the Baltics include: Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic and Slovenia. Eastern Europe and the Caucasus include: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. Central Asia includes: Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan.

examined from two perspectives, administrative corruption and grand corruption. Administrative corruption concerns firms that engage or are forced to engage in bribery and unofficial payments or gifts to government officials regarding their business. State capture, a form of grand corruption, is present when firms initiate corrupt practices and bribery to government officials to alter and influence the content of government decrees and regulations related to their business (Hellman and Kaufmann 2001). Firms may be asked, forced to bribe to obtain rightful licenses, or choose to bribe to extract profits and speed bureaucratic processes in an institutional environment that allows these practices.

Corruption levels are difficult to measure, as they are based on informal and illegal practices that tend to be concealed (Bevan and S. 2000). However, various surveys have been designed to measure corruption, and the methods used in their formation are continuously reviewed (Knack 2006). The existing empirical literature on corruption is based on measurements of corruption either through perception-based surveys, or through surveys based on the experiences of respondents. The former use subjective indices of how corruption is perceived and attempt to decrease the measurement error by using averages from different sources. They aim to measure the perceptions of how widespread or costly corruption is in certain countries, and aggregate results from various sources, country risk ratings by business consultancies, surveys of international or domestic business people, and polls of country inhabitants. The latter are based on measures of corruption experiences and are conducted through surveys of business people and citizens in various countries. These surveys focus on the respondents' direct experience of corruption, either the experience of their family or firm, and have been widely used in recent years for the measurement and understanding of corruption. They mainly try to measure the number of incidents in which the respondents have been expected to pay bribes (Treisman 2007).

This thesis uses the survey BEEPS, which is based on the experience and perceptions of managers.[5] It is a joint initiative of the European Bank for Reconstruction and Development and the

[5] Business Environment and Enterprise Performance Survey.

World Bank. The survey is based on face-to-face interviews with firm owners and managers. It has been widely used in the research on corruption initiated from 1999, based on firm level data in transition economies, to investigate the business environment. The survey is regularly conducted on the countries of Eastern Europe and Central Asia.

We identify administrative corruption as the percentage of total annual sales that a firm like the one represented by the respondent, would typically pay in unofficial payments and gifts to public officials. Interviewers asked firm managers about the amount of corruption, based on what is happening to firms like theirs: “On average, what percentage of total annual sales do firms like yours typically pay in unofficial payments or gifts to public officials?” The percentage of total annual sales that similar firms give to bribes is based on actual financial results. The percentage of total annual sales that similar firms give as bribes is a direct measure of corruption, the firms are asked about corruption directly related to the amount of bribes. This measure is therefore used to estimate the relation between corruption and firm performance. As a quantitative variable, it can provide valuable information on the extent and variation of corruption, and its impact on firm size and performance.

However, because of the sensitivity of this question and possibility of underreporting (Synovate 2005), we include another measure of administrative corruption. The second identification of administrative corruption measures the frequency of bribes that similar firms “have to pay to get things done with regards to customs, taxes, licenses, regulations, services”. It depicts the frequency that firms are demanded to bribe and the cases of institutionalized corruption, when the firms are forced to bribe to have access to rightful processes. Firms may be asked for bribes to obtain rightful licenses, or may initiate the bribery to increase profits, speed bureaucratic processes, in an institutional environment that allows these practices. The measure ranges from 1 to 6, based on the different level of frequency of unofficial payments, with 1 being never and 6 being always. The frequency of corruption may be considered a measure partly based on the perception of the respondent. Even though the question is directly related to the experience of the firm owner or manager in engaging in corrupt activities, what it

constitutes frequently or very frequently may be influenced by several possible biases, including the perception of the respondent of corruption as a barrier for his business and the societal and cultural norms towards bribery.

The third way we examine administrative corruption is by its identification as an operational and growth barrier for doing business. Managers are asked if corruption constitutes an obstacle to the current operations of their business. Their answers range from 1 if managers do not consider corruption as an obstacle to the operations of their establishments, to 4 if managers assess corruption as an important barrier for the operation and growth of their business. This question underlines the effect of widespread corruption in the public sector that could result in the demand of bribes, but it could also reflect managerial perceptions. If managers rank corruption as an important barrier in doing business, it is hard to determine whether this answer stems from the high corruption levels or their knowledge of the negative impact of corruption in doing business in general. Similarly, if managers do not consider corruption as an obstacle to doing business, it may be because corruption is low or because they consider corruption as a norm to "speed up" some administrative processes.

We further identify "state capture", the cases in which firms choose to make payments or gifts to government officials, in order to influence the content of government decrees. This measure is again based on the experience of managers to whom the questionnaire is addressed. The question used in the survey does not explicitly ask if firms initiate payments and gifts to change government decrees but ranks the impact of these corrupt practices initiated by firms from 1 to 4, 4 indicating that these practices have a decisive impact. Since this question measures the impact of the decision of some firms to bribe, it is related to the potential gains anticipated from bribery. We assume that firms that actively initiate these practices expect a positive return on their business. Therefore, these firms could be extracting rents from the government or divert government resources in their favour, and possibly also in favour of firms sharing similar characteristics. In this case, this form of active corruption would be expected to positively affect the sales of the bribing firms. However, overall the impact of state capture

on the firms that are not involved could be negative, a relationship that can be depicted at the sectoral, regional and country level. As some firms extract rents from the government, there is a misallocation of resources and other firms in the market can suffer a negative impact on their business. The difference with administrative corruption is that state capture identifies the impact of firms that do not only engage in corrupt practices but also actively decide them.

2.4 Descriptive Analysis

2.4.1 A negative association between state level corruption and firm sales

Figure 2-1 presents the relationship between average corruption (the direct measure of corruption we use that is, as previously explained, the percentage of total annual sales paid in bribes to public officials, hereby referred to as corruption) and the log of total annual sales at the country level, where annual sales are expressed in current US dollars. We observe a negative relation between corruption and the size of the firm, when the extent of corruption is lower the firm is characterized by higher size of sales.

Figure 2-2 shows the geographical groups and our preferred measures of administrative corruption, the share of sales paid as bribes. The regional groups that altogether appear to be the most corrupt are Central Asia, Eastern Europe and the Caucasus. Most of these countries were affected by the transition process from communism to free market in their recent history and their institutional environment and governance lacks the maturity of established democracies. Corruption has been apparent in the various privatization processes that were followed in the transition of these countries to market economies (Moran 2001). The process to democratization and economic reforms, often rapidly implemented, generated possibilities for corrupt practices and privatization plans were criticized for their impact on corruption.

Firms in Russia, Turkey and South-East Europe also appear to bribe frequently, whereas firms in South Europe followed by Germany, Central Europe and the Baltics appear as the least corrupt[6]. Countries of South Europe, Greece, Spain and Portugal, members of the European Union and Eurozone, are also recently established democracies and went through dictatorships. However, they have achieved significant development and have received substantial funds from the European Union.

Overall the geographical pattern of administrative corruption seems to confirm that long exposure to democratic regimes decreases corruption levels (Treisman 2000). This pattern is qualitatively similar for state capture (Figure 2-3). European countries of South Europe and Germany seem the least affected by state capture, while recent transition countries are the most affected. However, the ranking within transition countries is very different for administrative corruption and state capture.

[6] Our three other measures of administrative corruption displayed similar geographical patterns.

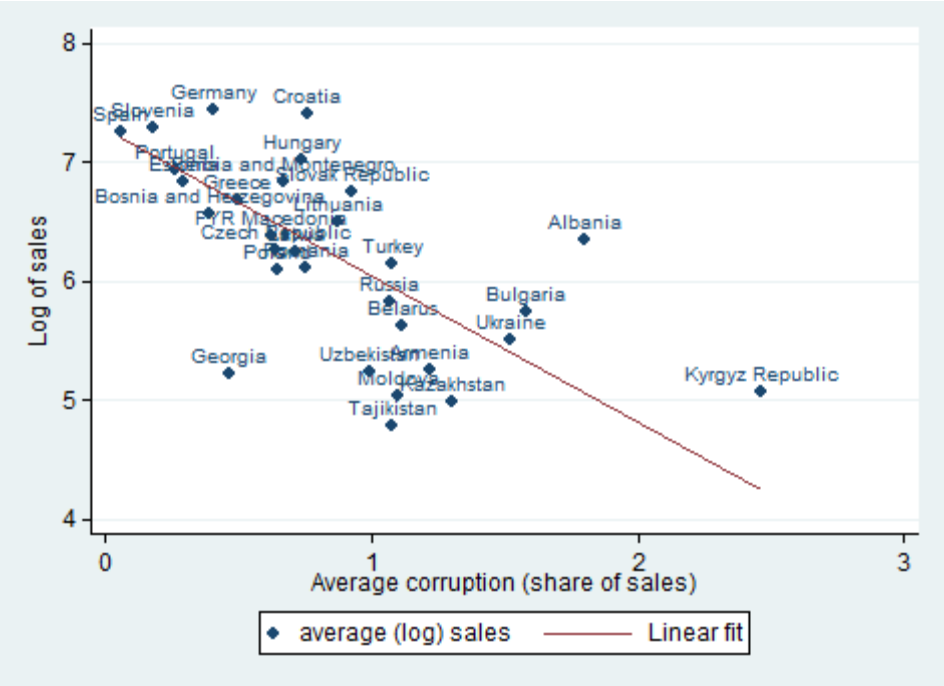

Figure 2-1 Average corruption and firm sales at the country level

Source: EBRD-WB BEEPS (2005) and authors' computations.

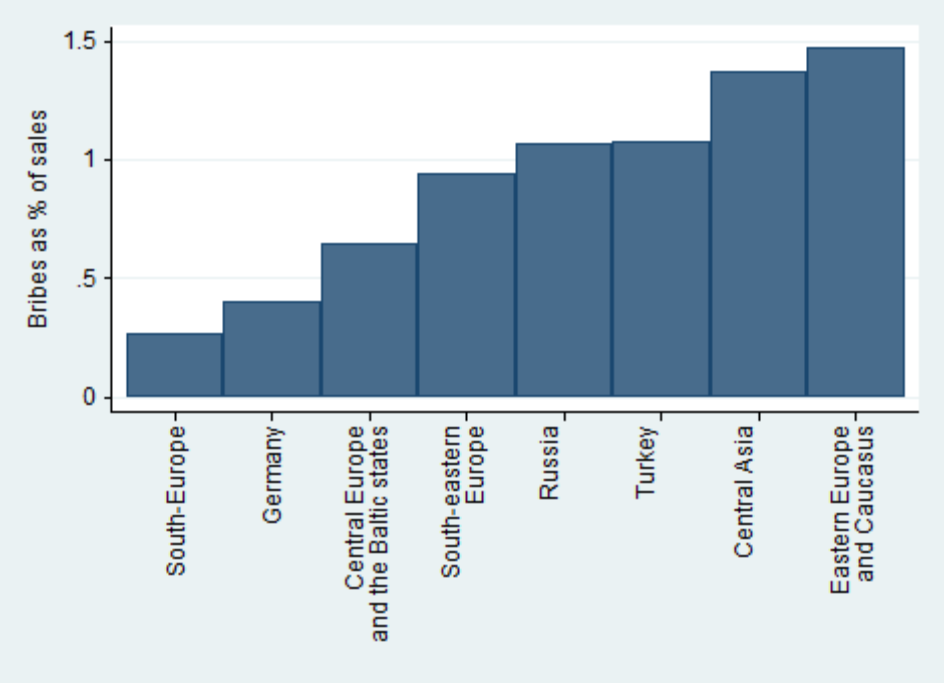

Figure 2-2 Administrative corruption by geographical group (share of sales)

Source: EBRD-WB BEEPS (2005) and authors' computations.

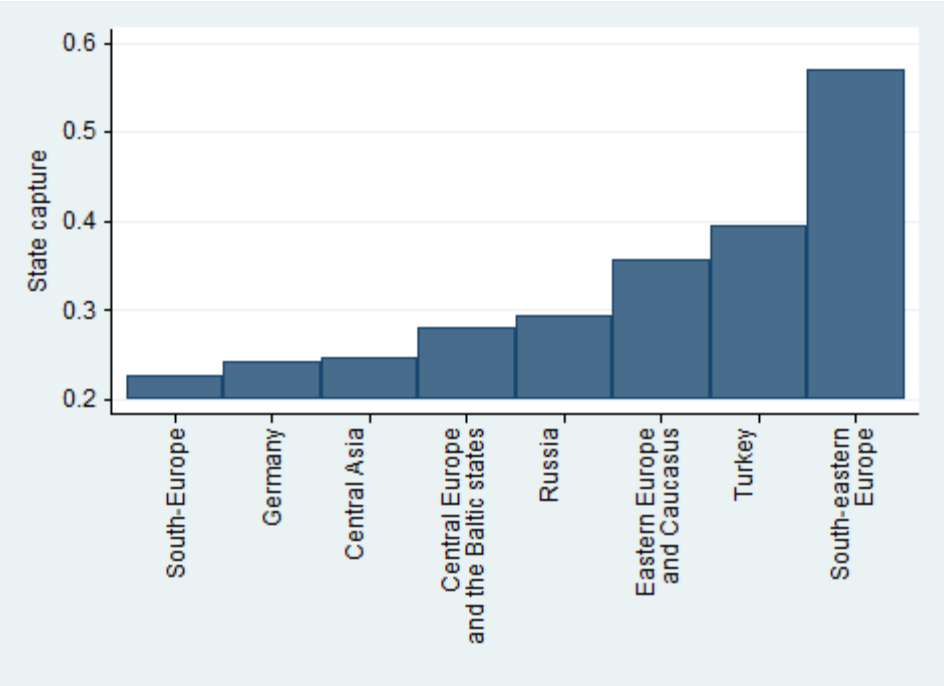

Figure 2-3 State capture by geographical group

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 2-4 depicts a positive cross-sectional association between the average corruption and the growth of sales at the country level. However, there is an issue, regarding the analysis of the relation between growth and corruption, based on the time we are using for the measure of corruption. Corruption in the survey is measured in 2005, whereas firm growth is based on the percentage change in sales in the last three years, between 2002 -2005. It has not been possible to use corruption in 2002, based on the previous BEEPS, because the countries of South Europe, that the study aims to include and compare, were not surveyed. Therefore, by using the measure of corruption in 2005, the interpretation of the relation between corruption and growth of sales could be less clear, even though we would expect that the corruption levels would be similar across these years.

The impact of corruption is also related to its predictability, and our analysis supports that corrupt practices in countries where these are institutionalized can be less negative for growth compared to countries where corruption levels are variable. Corruption, in the Commonwealth of Independent States (CIS) and some of the countries in South-Eastern Europe, that score highly in average

bribing (Figure 2-1), is a more institutionalized phenomenon, and therefore to a certain extent predictable. The argument on the association of the impact of corruption to its predictability is related to the research on corruption and foreign direct investment. As it has been demonstrated empirically uncertainty and risk in investment decisions are created by the lack of knowledge of the institutional environment and the differences in relative corruption between two countries (De Rosa, Gooroochurn, and Gorg 2010). It has been found that firms can reduce their cost of doing business, if they acquire information and knowledge on corrupt practices, and consequently improve their bargaining position regarding the amount of bribes with the public officials (Svensson 2003). If firms operate in a predictable environment, characterized either by transparency or widespread corruption, they can adapt their structure and model of operation accordingly, and be able to estimate the additional costs of bribery that are directly related to their expectations and growth strategies. Firms being aware of the institutional environment and the expectations that arise may adapt to this environment and deal with the public officials more efficiently. In cases of low and medium levels of corruption, assuming that low and medium levels of corruption are related to more variable or inconsistent levels of bribing, the managers may not have the same level of knowledge of the business environment, and the relative requirements in the transaction with the public sector, which could result in a decreased ability to adapt and position themselves efficiently.

In the cases of regions and countries with low levels of corruption, as depicted in the graph, in some countries of South Europe, Central Europe and Germany, the predictability of being asked for a bribe is lower. This is also the case in countries with medium bribery levels; however their growth seems less affected. We assume that the predictability of bribing is rising as corruption levels increase, hence corruption even at low levels could be more detrimental on growth. In addition, a decrease in the spread of corruption could raise the costs of the unofficial payments, with public officials aiming to extract more from fewer firms whereas in cases of widespread, institutionalized corruption it could be argued that the cost of bribes would be less and “known”.

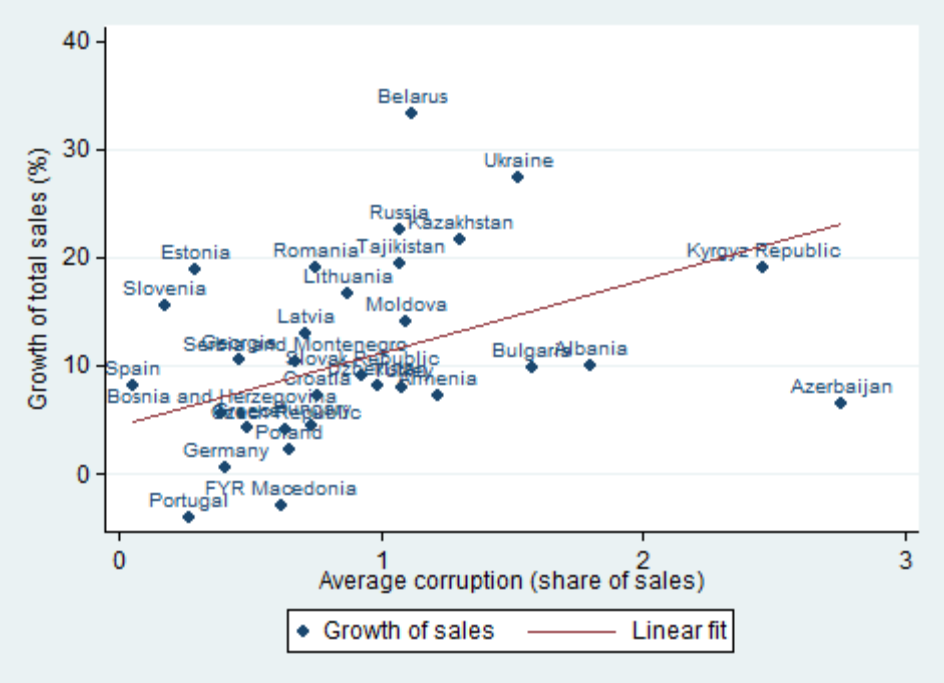

Figure 2-4 Average corruption and firm growth at the country level

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 2-5 and Figure 2-6 display the relationship between average corruption and the log of sales, and average corruption and the growth of sales at the regional level. The negative relation between average corruption and log of sales, and the positive relation with growth of sales, hold at the regional level as at the country level.

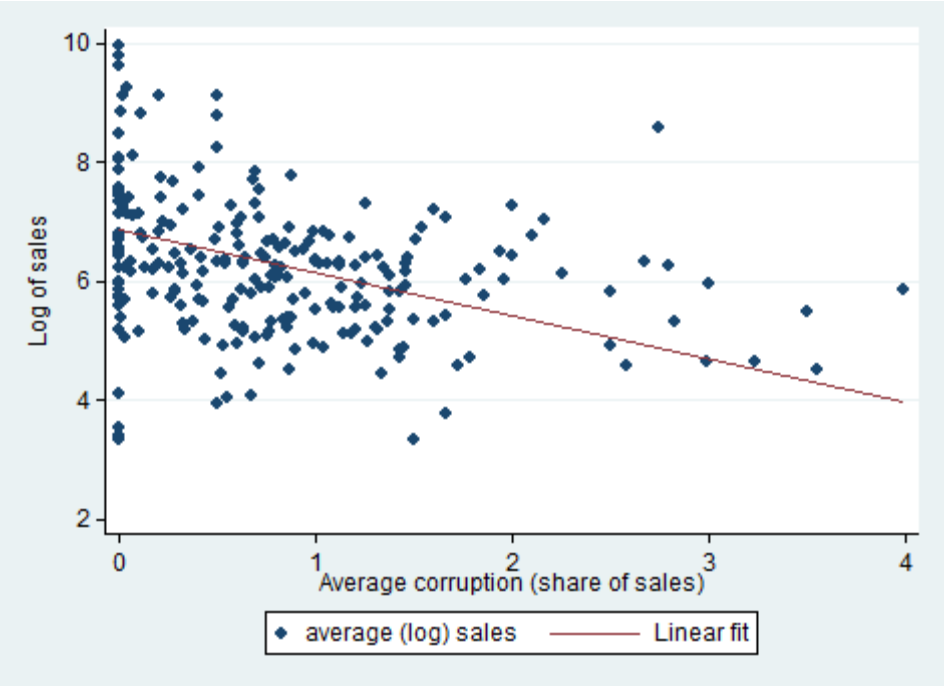

Figure 2-5 Average corruption and firm sales at the regional level

Source: EBRD-WB BEEPS (2005) and authors' computations.

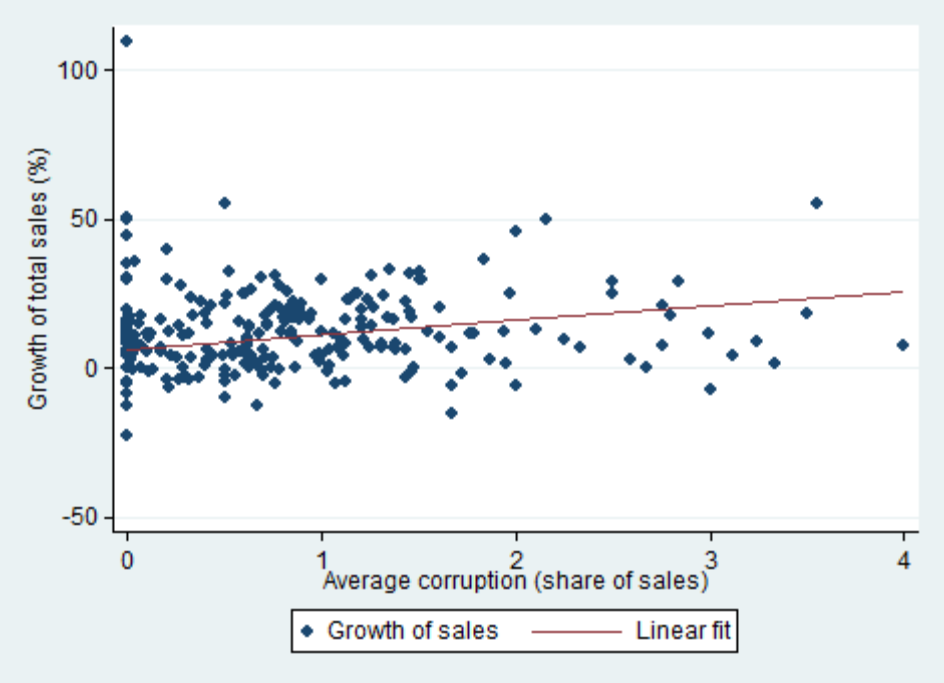

Figure 2-6 Average corruption and firm growth at the regional level

Source: EBRD-WB BEEPS (2005) and authors' computations.

2.5 Non-Linear Relation of Corruption and Firm Size

We then examine the different corruption patterns based on the size of the firms. Companies are divided into three main categories: small from 2 to 49, medium from 50 till 249 and large from 250 employees and more [7.] We further divide small and medium categories in 2 subcategories, and large firms in 3 groups. We applied this classification at the establishment level[8]. Very small firms with 2 to 10 employees represent 43.74 % of our sample. Firms with 11 to 49 employees represent 28.48%, firms with 50 to 99 employees 10.25%, firms with 100 to 249 employees 7.83%, firms with 250 to 499 employees 5.77%, firms with 500 to 999 employees 2.2%, and firms with more than 999 employees 1.73%. Figure 2-7, in the case of administrative corruption, as the amount of bribes as share of sales, small and medium firms, and specifically the highest end of small firms and the lowest end of medium firms are the most affected. Large firms seem to be the least affected and those with 1000 employees and more seem to pay a very small amount of bribes to public officials. Medium firms followed by small firms and specifically their two subgroups are also asked more often for payments. Corruption is much less frequent at the lower end of small firms, which can be attributed to the smaller rents the government officials could extract from very small firms. Our results are based only on formal firms that are interviewed during the BEEPS survey, however a large share of small firms may also include informal firms. If small informal firms pay a large share of sales as bribes to avoid the costs of formal operations, this may change the observed relationship between firm size and corruption[9].

[7] This corresponds to the current classification of firm size of the European Union.

[8] Unfortunately, the survey does not contain the number of employees of any parent companies that the establishment is part of. However, foreign owned firms constitute a small share of the sample (approximately 5.8%).

[9] The BEEPS survey does not provide information on the informal sector that could be important in order to draw definite conclusions about small firms.

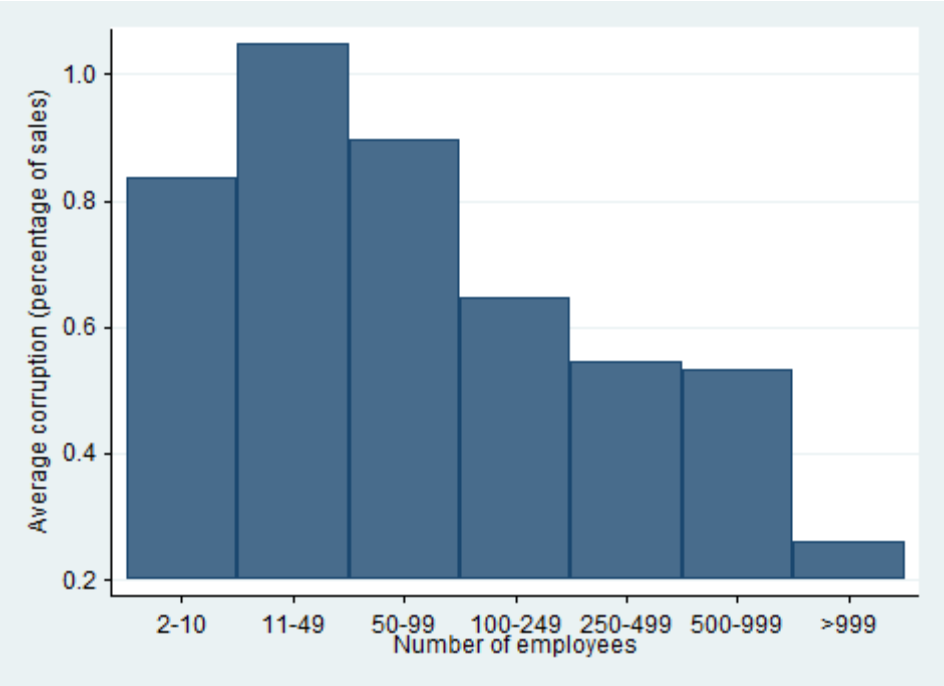

Figure 2-7 Bribing as share of sales across firms of different size

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 2-8 displays the same pattern for the other measure of administrative corruption, the frequency of bribes. The relationship between the frequency of corruption and the size of the respondent firms appears non-linear. Micro firms of less than 10 employees seem to be less affected by corruption. This could be justified by their small size. The micro firms may be less observable, have less access to public procurement markets, and the bribes they are able to pay may be too costly to extract for public officials. As small firms grow they possibly attract more attention from public officials and are more frequently approached for unofficial payments. The small firms of 11-49 employees and the medium firms of 50-99 employees represent the two subcategories where corruption is more prevalent and constitutes a greater obstacle in the operation and growth of their business[10].

[10] The other measures of corruption present a similar pattern. Firms that associate corruption as an important obstacle in doing business are mostly the two subgroups that are characterized by higher and more frequent corruption, the higher end of small firms with 11-49 employees and the lower end of medium, with 50- 99 employees. However firms of all sizes appear to consider corruption as a barrier in the operation and the growth of their business, including very small or large firms.

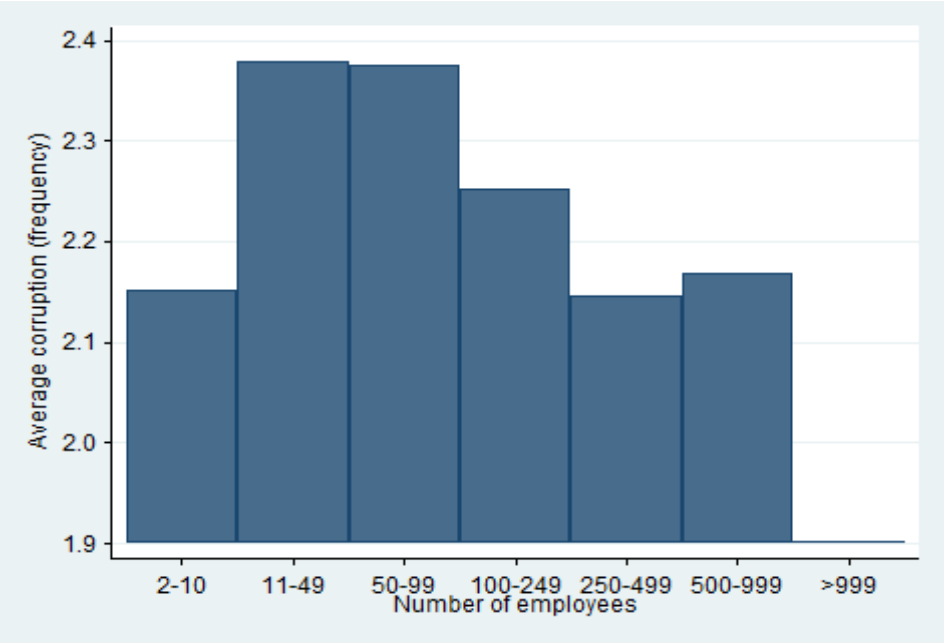

Figure 2-8 Frequency of average corruption across firms of different size

Source: EBRD-WB BEEPS (2005) and authors' computations.

Firms that exceed 100 employees appear to be less affected by corruption, less asked for bribes, and engage less in corrupt practices. The growth of their power in the market and the increase of their experience could allow them to overcome possible operational barriers for their business. As firms grow in size and market power, they may be able to set the rules of the game and be less exploited by public officials, while some of these powerful firms would be the ones attempting to capture the state and influence government decrees related to their business.

State capture does not display the same non-linear pattern as administrative corruption (Figure 2-9). In particular, the managers of micro firms respond that they are not affected by state capture. As mentioned earlier, micro-firms may lack the ability to influence high-level public officials. On the contrary, the managers of firms between 250 and 499 employees declare the highest level of state capture, and the impact of state capture appears also important among medium firms of 50 to 99 employees.

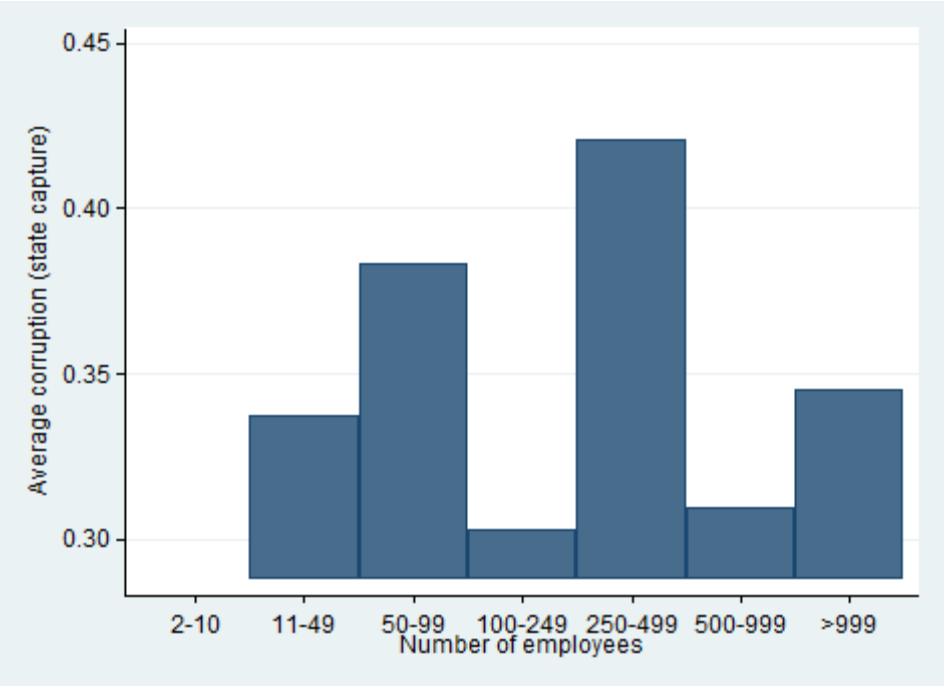

Figure 2-9 State capture across firms of different size

Source: EBRD-WB BEEPS (2005) and authors' computations.

2.5.1 Descriptive Statistics

Table 2-1 presents descriptive statistics for the different measures of corruption. Panel A shows our measures of corruption at the firm level, panels B to D show the measures of corruption averaged at the regional, industry or country level respectively. The averages are leave-one out averages. For example, for a given firm in the region of Moscow the average includes all the firms in the region of Moscow excluding the firm itself. These measures capture the contextual effects of corruption and avoid endogeneity concerns as both firm level corruption and sales may be determined jointly by the firm and could be driven by similar unobservable firm characteristics.

Panel A Firms identify the impact of state capture as lower compared to the overall corruption as a barrier, which could be attributed to the fact that state capture would be expected to be a less occurring practice, and that it would not be possible for a large number of firms to capture the state. However, it is important to note that it is very difficult to compare the different measures of corruption we use, as the questions they treat are different. Therefore even if the results are lower the impact on

the firm size and performance could be higher. Furthermore, for panel A, the measures of corruption at the firm level are all positively correlated. The linear correlations between the different corruption measures are stronger between corruption frequency and corruption as share of sales, which is expected because of the similarity between the two measures. They are less correlated with corruption as a barrier and state capture. The impact of state capture and the barrier of corruption are correlated, as managers may identify state capture as an important barrier for doing business.

Table 2-1 Descriptive statistics for the different measures of corruption

Panel A:	Measures of corruption at the firm level						
	Mean	S.D.	Min	Max	Linear correlations		
As a share of sales	0.86	2.20	0.00	50.00			
Frequency	2.24	1.43	1.00	6.00	0.40		
As a barrier	2.02	1.13	1.00	4.00	0.23	0.38	
State capture	0.32	0.76	0.00	4.00	0.15	0.29	0.30
Panel B:	Measures of corruption at the industry*country level[1]						
As a share of sales	0.85	0.87	0.00	15.00			
Frequency	2.24	0.66	1.00	6.00	0.55		
As a barrier	2.02	0.52	1.00	4.00	0.37	0.51	
State capture	0.32	0.31	0.00	3.00	0.22	0.33	0.44
Panel C:	Measures of corruption at the regional level[1]						
As a share of sales	0.86	0.67	0.00	5.00			
Frequency	2.24	0.56	1.00	5.33	0.66		
As a barrier	2.02	0.48	1.00	4.00	0.42	0.53	
State capture	0.32	0.27	0.00	3.00	0.24	0.34	0.54
Panel D	Measures of corruption at the country level[1]						
As a share of sales	0.86	0.57	0.05	2.76			
Frequency	2.24	0.49	1.50	3.76	0.73		
As a barrier	2.02	0.39	1.40	2.84	0.51	0.61	
State capture	0.32	0.18	0.03	0.88	0.37	0.43	0.68
Panel E:	Main explanatory variables at the firm level						
Log total sales	6.31	2.02	0.00	14.51			
Growth of sales	10.24	35.39	-98.00	400.00	0.06		

Note: 1. The variables are averaged at the region, industry times country or country level (excluding the firm observation). Industry is a 2-digit ISIC classification. Source: EBRD-WB BEEPS (2005) and authors' computations.

At the industry level and at the regional or country level, the aggregate measures of corruption, present similar patterns (Table 2-1, panels B to D). The correlations between the different measures of corruption are higher than the ones observed at the firm level. This underlines that multiple corrupt

practices may be common among the group of peers of a firm, measured at the regional, industry or country level. Industries, regions and countries, which are affected by administrative corruption, are also affected by state capture.

2.6 Disentangling the contextual effect of corruption from its effect on the firm level

2.6.1 Firm level measures of corruption, firm size and performance

There have been findings in the literature on the possible positive effect of corruption for some firms (Wei 1998). In the past there has been a strong debate on the effect of corruption on economic development. It has been supported that corruption could increase economic development mainly because illegal practices and payments as 'speed money' could surpass bureaucratic delays; the acceptance of bribes in government employees could work as an incentive and increase their efficiency (Huntington 1968; Leff 1964) and that corruption is possibly the price people are forced to pay, as a result of market failures (Acemoglu and Verdier 2000).

Some of the reasons that drive firms to engage in corrupt practices are among others, market expansion and profit maximization ambitions. Firms often engage in illegal practices and bribes to ensure their operation at first (e.g. the operation licenses), and then their expansion in a country. However, in some studies the attention is driven away from the interaction of the state with firms, and they focus on the relationships that the firms have with the state and their possible influence to the government officials (Kaufmann 2005). They explain that some firms (oligarchs) in transition countries managed to exert power and use illegal, corrupt practices for their benefit, to ensure their power and dominance, with important social implications. In this 'capture economy', that characterises the transition, the legal and policy conditions are formed based on the captor's huge benefit, and at the expense of the rest of the enterprises. There is occasional evidence that some firms gain from using corrupt practices but this usually refers to a few large firms with very good political connections (Kaufmann 2005).

Corruption at the individual firm level does not always show a clear negative relationship with the log of sales. The four measures of corruption we use provide different and not always negative effect on the size of the firm. Specifically, state capture seems to be positive on firm size, even though this effect does not appear to be significant. The result could be explained by the incentives of firms to bribe. State capture refers to firms choosing and actively initiating unofficial payments (including gifts or benefits) to public officials in order to influence the content of government decrees, related to their business. We could therefore expect that firms choose these practices to gain advantages and maximize their profits, through the influence of decrees and access to resources, in a way that it would be advantageous for their business.

Table 2-2 presents the Ordinary Least Squares (OLS) estimates of the regression of firm level log of sales on firm measures of corruption. When the measures of firm level corruption are included in the regressions, the share of bribes paid, the frequency of corruption and corruption as a barrier are significantly and negatively correlated with the level of sales. For example, the coefficient of the share of bribes, -0.113, indicates that an increase of the share of bribes in total sales by one percentage point would decrease total sales by 10% (significant at the 1% level). The first three measures of corruption appear to have similar effects on total sales. A one standard-deviation increase of these measures (2.2 percentage points, 1.43, 1.13 and 0.76 units respectively) would imply a decrease in total sales by 3.8% to 24.9%. However, the measure of grand corruption, state capture, is positive and close to zero and does not appear as a significant driver of total sales (at the 10% level).

Table 2-3 reports the results of the previous regressions controlling for 43 dummy variables by manufacturing sectors. Indeed, the total sales are different by manufacturing sectors and this could cause some omitted variable bias. The R-squared of all regressions increases significantly. This indicates that manufacturing sectors are important drivers of total sales. However, the point estimates of the effects of corruption remain similar to the previous estimates. The coefficient of -0.118 for the average share of bribes indicates that an increase of the share of bribes in total sales by one percentage point (at

the national level) would decrease total sales by 118% (significant at the 1% level). A one standard-deviation increase in the measures of corruption (2.2 percentage points, 1.43, 1.13 and 0.76 units respectively) would imply a decrease in total sales by 2.4% to 25.9%.

Table 2-2 Firm measures of corruption and firm sales[11]

Dependent variable:	(Log) Total sales			
	(1)	(2)	(3)	(4)
Corruption as Share of sales	-0.113***			
	(0.010)			
Frequency of Corruption		-0.095***		
		(0.015)		
Corruption as a Barrier			-0.114***	
			(0.018)	
State capture				0.050*
				(0.028)
Observations	8774	8578	9055	8272
R-squared	0.013	0.004	0.004	0.000

Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 2-3 Firm measures of corruption and firm sales controlling for manufacturing sectors

Dependent variable:	(Log) Total sales			
	(1)	(2)	(3)	(4)
Corruption as share of sales	-0.118***			
	(0.010)			
Frequency of Corruption		-0.109***		
		(0.014)		
Corruption as a Barrier			-0.132***	
			(0.018)	
State capture				0.031
				(0.027)
Manufacturing sectors controls	Yes	Yes	Yes	Yes
Observations	8774	8578	9055	8272
R-squared	0.130	0.116	0.116	0.115

Note: Standard errors robust to heteroskedasticity in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales. Source: EBRD-WB BEEPS (2005) and authors' computations.

[11] The log of sales distribution is approximately normally distributed.

Then we conduct a regression of firm measures of corruption on the 3-year growth of sales. Table 2-4 shows that the estimates on the impact of the share of bribes paid, the frequency of corruption and corruption as a barrier on sales growth, are all close to zero and not significant at conventional levels.

Table 2-4 Firm measures of corruption and 3 year growth

Dependent variable:	Δ (Log) Total sales in 2005-2002			
	(1)	(2)	(3)	(4)
Corruption as share of sales	-0.002			
	(0.002)			
Frequency of Corruption		0.003		
		(0.003)		
Corruption as a Barrier			-0.005	
			(0.003)	
State capture				0.002
				(0.005)
Manufacturing sectors controls	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes
Log total sales in 2002	Yes	Yes	Yes	Yes
Observations	8552	8351	8820	8059
R-squared	0.037	0.035	0.036	0.041

Note: standard errors robust to heteroskedasticity in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales in 2005 minus the natural logarithm of total sales in 2002. Regional dummies include South Europe, South-Eastern Europe, Central Europe and the Baltics, Eastern Europe and the Caucasus, Central Asia, Russia, Turkey and Germany. Source: EBRD-WB BEEPS (2005) and authors' computations.

2.6.2 The relationship between contextual corruption and firm size

In this section we investigate the relationship between firm sales and a corrupt environment. Widespread corruption may have negative effects on business performance and growth. It can cause misallocation of resources, changes on the composition of public expenditure, and can impede the collection of revenues (Mauro 1996). A corrupt environment deprives firms from equal market opportunities and increases the cost of doing business. This raise can create obstacles in the market entry of firms. It should also be noted that in the incidence of corrupt judicial systems, the operational

ability of firms is obstructed, as is their ability to enforce contracts, resulting in fewer business opportunities. Business corruption decreases competition and efficiency and develops a "rent-seeking" environment. The demand of bribes by public officials, for approving licenses and permits, reduces the amount of firms that can enter the market (Sullivan and A. 2004). Thus, corruption may deteriorate business environment worldwide, and some firms lacking sufficient resources to bribe government employees, will have reduced or deteriorated access to services and increased costs.

We focus on the impact of contextual corruption, measured among the peers of the firms at the regional and country level. The point estimates of the impact of contextual corruption at the industry level displayed similar patterns and are omitted[12]. At the regional and country levels we expect that the impact of corruption on firm size and growth will be negative. Firms that are not involved in practices to capture the state and do not influence government decisions to their benefit, will have less access to resources and higher costs, whereas their sales could be hampered by the discrimination and misallocation of resources induced by the bribing firms.

2.6.3 Regional corruption and firm sales

Table 2-5 reports the point estimates of the impact of regional corruption on the firm log of sales. As corruption is now defined at the regional level, the standard errors are clustered at this level of aggregation. On average, at the regional level, if corruption as share of sales increased by 1% point, then the log of sales would decrease by 78.7%. A one standard-deviation increase of these measures (0.67 percentage points, 0.56, 0.48 and 0.27 units, respectively) would imply a decrease in total sales by 12.6 to 52.7%. These results contrast with the estimates of the firm level estimates, which were less significant, and of smaller magnitude.

[12] They are available from the authors upon request.

Table 2-5 Regional measures of corruption and firm sales

Dependent variable:	(Log) Total sales			
	(1)	(2)	(3)	(4)
Corruption as share of sales	-0.787***			
	(0.150)			
Frequency of corruption		-0.734***		
		(0.181)		
Corruption as a barrier			-0.675***	
			(0.233)	
State capture				-0.466*
				(0.250)
Observations	8768	8571	9046	8259
R-squared	0.051	0.039	0.027	0.004
Clusters	232	229	229	225

Note: standard errors clustered at the regional level in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales. The explanatory variables are averaged at the regional level (excluding the firm observation). Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 2-6 presents the estimates of a regression of the firm 3-year growth of sales on regional measures of corruption[13]. When the measures of regional level corruption are included in the regressions we observe that the two measures of corruption, corruption as a barrier and state capture, become strongly significant and negative, at the 1 and 5% significance level respectively. The other two measures, corruption as share of sales and corruption frequency, appear close to 0 and are insignificant.

[13]The results for the industry*country measures of corruption and 3-year growth are very close to the regional measures of corruption and not reported.

Table 2-6 Regional measures of corruption and 3 year growth

Dependent variable:	Δ (Log) Total sales in 2005-2002			
	(1)	(2)	(3)	(4)
Corruption as share of sales	0.008			
	(0.013)			
Frequency of Corruption		0.002		
		(0.014)		
Corruption as a Barrier			-0.040***	
			(0.015)	
State capture				-0.051**
				(0.021)
Manufacturing sectors controls	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes
Log total sales in 2002	Yes	Yes	Yes	Yes
Observations	8546	8344	8811	8046
R-squared	0.037	0.035	0.038	0.043
Clusters	232	229	229	225

Note: standard errors clustered at the regional level in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales in 2005 minus the natural logarithm of total sales in 2002. The explanatory variables are averaged at the country level (excluding the firm observation). Regional dummies include South Europe, South-Eastern Europe, Central Europe and the Baltics, Eastern Europe and the Caucasus, Central Asia, Russia, Turkey and Germany. Source: EBRD-WB BEEPS (2005) and authors' computations.

2.6.4 State corruption and firm sales

Table 2-7, includes in the regressions the country averages of the share of sales paid as bribes, the frequency of corruption, and the perception of corruption as a barrier to business. As corruption is now defined for each of the 30 countries in our sample, the standard errors are clustered at the country level. All the measures of corruption at the county level are negatively and significantly correlated with the level of sales. Taken at face value, the coefficient of -1.281 for the average share of bribes indicates that an increase in the share of bribes in total sales by one percentage point would decrease total sales by 128% (significant at the 1% level). A one standard-deviation increase of these measures (0.57 percentage points, 0.49, 0.39 and 0.18 units respectively) would imply a decrease in total sales by 19.8%

to 73%. This change in aggregate corruption is large, as in our sample of countries; the average share of bribes in total sales varies between 0.05 and 2.76% (see above).

Table 2-7 State Corruption and firm sales

Dependent variable:	(Log) Total sales			
	(1)	(2)	(3)	(4)
Corruption as share of sales	-1.281***			
	(0.238)			
Frequency of Corruption		-1.017***		
		(0.271)		
Corruption as a Barrier			-1.080***	
			(0.309)	
State capture				-1.100
				(0.780)
Observations	8774	8578	9055	8272
R-squared	0.089	0.058	0.046	0.009
Clusters	30	30	30	30

Note: standard errors clustered at the country level in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales. The explanatory variables are averaged at the country level (excluding the firm observation). Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 2-8, shows the regression of the three-year firm growth on our measures of corruption at the country level. All the measures of corruption appear to have a negative impact on growth as we disclose the contextual effect of corruption at the country level. The share of bribes paid, the frequency of corruption and the perception of corruption as a barrier to business are all negatively correlated with the level of sales, whereas corruption as business barrier and state capture are significant at the 5% and 1% significance level. The coefficient of -0.152 for the average state capture indicates that an increase of state capture by one percentage point (at the national level) would decrease growth of sales by 15.2% (significant at the 1% level). A one standard-deviation increase of these measures (0.39 and 0.18 unit respectively) would imply a decrease in growth of sales of around 3%.

Table 2-8 State corruption and 3 year growth

Dependent variable:	Δ (Log) Total sales in 2005-2002			
	(1)	(2)	(3)	(4)
Corruption as share of sales	-0.001			
	(0.027)			
Frequency of Corruption		-0.020		
		(0.025)		
Corruption as a Barrier			-0.079**	
			(0.031)	
State capture				-0.152***
				(0.045)
Manufacturing sectors controls	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes
Log total sales in 2002	Yes	Yes	Yes	Yes
Observations	8552	8351	8820	8059
R-squared	0.037	0.035	0.040	0.047
Clusters	30	30	30	30

Note: standard errors clustered at the country level in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales in 2005 minus the natural logarithm of total sales in 2002. The explanatory variables are averaged at the country level (excluding the firm observation). Regional dummies include South Europe, South-Eastern Europe, Central Europe and the Baltics, Eastern Europe and the Caucasus, Central Asia, Russia, Turkey and Germany. Source: EBRD-WB BEEPS (2005) and authors' computations.

The estimated effects of regional and state corruption on firm sales and growth are much larger than the estimated effects of corruption based on the firm's own behaviour. This suggests that the estimates using firm level corruption are biased towards zero (Table 2-2 to Table 2-4). Three alternative arguments could explain this pattern. First, the firm level estimates could be biased towards zero as the firm level measures of corruption are subject to measurement error. Managers may have an imprecise idea of the amount of bribes being paid or choose to declare an imprecise amount of bribes as share of sales. The attenuation bias associated with classical measurement error would cancel out when the measures of corruption are aggregated at the regional, industry or country level. However, this argument does not explain the fact that the point estimates for state capture were slightly positive when measured at the firm level.

Second, firm-level corruption is an endogenous decision that could bring individual benefits to individual firms. Thus, firm level estimates, using firm level measures of corruption, could have been biased towards positive values. Finally, the firm's own corrupt behaviour could have important spillovers on their peers and competitors. Firms do not internalize the costs of their own corruption for other firms. Hence, contextual corruption would be more detrimental for firm sales and growth than firm level corruption. This last argument is corroborated by experimental evidence. It has been found that individuals bribing public officials in India, for their driving licenses, obtain their licenses easier. However, they are later involved in more road accidents and they exert significant negative spillovers on other drivers (Bertrand et al. 2007).

2.7 Heterogeneity of the relationship between corruption and firm sales

We now focus on the heterogeneity of the relationship between corruption and firm sales for different types of firms. As shown in Section 4, the estimated effect of corruption based on firm level measures of corruption may be biased towards zero. Therefore we choose to focus on regional corruption.

2.7.1 The different effects of corruption according to firm size

Table 2-9 reports the regressions of the logarithm of firm sales on regional corruption for different groups of firms. SMEs appear the most influenced by corruption. Corruption particularly affects the medium sized firms and the higher end of small firms. We attribute this finding to the fact that very small firms are not noticeable and therefore they would be approached less for extracting rents, and their actual capacity to make unofficial payments would be limited[14]. However as firms grow they would be more likely to be demanded for bribes. Large firms are more associated with corrupt practices and

[14] The BEEPS captures only a cross-section of firms. Thus, the barriers faced by firms that did not survive cannot be assessed in this study. The share of small and medium enterprises could also be endogenous to the business environment, as countries with better institutions tend to have larger firms (Kumar, Raghuram, and L. Zingales 1999; You 1995).

evaluate the impact of state capture and overall corruption as a more significant barrier in doing business. This is in line with the strong correlation between state capture and corruption as a barrier in doing business that we previously found. State capture is often exerted by a small number of large firms that could lead to the distortion of market competition. As some large firms are able to influence government decrees and business regulations for their benefit, other firms could be hampered as a consequence and large firms could suffer on aggregate. Government officials may in some cases have personal interests in large firms that could also increase engagement in corrupt practices among large firms. However, the sample size of large firms in the survey is limited and to be able to draw significant conclusions we focus our attention on the results of SMEs. We run another regression, in which we divide small firms in two subgroups, and we can clearly support our initial hypothesis that very small firms are less affected.

These results confirm firm-level studies that find small firms severely hampered by overall business constraints (Beck, Demirguc-Kunt, and Maksimovic 2003). Lyberaki and Pesmazoglou (1996) highlight the importance of strong institutions at the local level to provide assistance to SMEs and be better able to satisfy their needs. Although the financial and legal environment is important for all companies, it does not affect companies of different size similarly. According to research from the World Bank and the EBRD, the firms that are more influenced by business constraints are the ones that can achieve more growth and create more jobs (EBRD 2005).

2.7.2 The different effects of corruption according to firm age and origin

Table 2-9, finds that de novo and previously state enterprises appear to be similarly affected by corruption. However de novo firms seem to assess corruption as a more significant business barrier. The likelihood of paying bribes is much larger in new firms. This could be attributed to the higher profitability de novo firms have and to their lack of connections and political influence that reduce their operational ability in a corrupt environment.

In transition countries, different features characterise de novo firms and old privatised, previously state-owned enterprises. De novo firms in transition, private from their set-up, seem to be more affected by business constraints, particularly corruption, taxation, and regulation. On the other hand, exit is hindered for old privatised firms comparing to de novo firms because of soft budget constraints (Mitra 2006). Old, previously state-owned firms, usually of a certain size, can deal more efficiently with corruption and other business barriers, often apparent in transition countries, because of longer and more established relations with public officials and previous knowledge. New start-ups would in most cases have limited connections and knowledge of the unofficial requirements, as they would lack long and established relations with the public authorities. The establishment of connections with public officials and previous experience can increase the predictability of the environment and curtail the negative impact of corruption on firm size and performance. Through connections in the public sector and knowledge of the unofficial practices and requirements, firms could improve their access to finance and financial stability that could ensure their operation and growth. Therefore privatized firms could be related to less risk than new start-ups (Brown, Jappelli, and Pagano 2009). The inconsistency in the treatment that different firms face by the government officials, depending on their connections, deters the environment for new start-ups and the entrepreneurial activity in transition countries. The unequal treatment of companies by the authorities hurts new firms, limits economic activity and distorts competition.

2.7.3 The different effects of corruption according to firm ownership

Table 2-9 shows that foreign firms seem generally more affected by corruption compared to domestic firms. Foreign firms in transition countries have in general been proven to be more efficient than domestic firms (EBRD 2005). One would expect that this might be explained by the fact that foreign firms may have strong legislation and need to comply with stricter regulations, therefore would participate less in corrupt practices. However, foreign firms appear to be equally willing to participate in corrupt practices and bribes, and in efforts to capture the state (Kaufmann 2005).

It has also been found that corruption is a major impediment on domestic investment (Kolstad and Villanger 2004), corruption and investment appear positively correlated and therefore if a country reduces its corruption, its investment to GDP (Gross Domestic Product) ratio can be significantly increased (Knack 2006). In particular, corruption has been shown to decrease Foreign Direct Investment and its composition (Smarzynska and Wei 2002; Weitzel and Berns 2006). Foreign companies appear unwilling to do business in countries characterized by very different corruption rates from their country of origin. Corruption could increase operation costs and foreign investors might seek domestic partners in order to invest. Sharing ownership could be preferred by investors in order to reduce the high costs and the uncertainty and risk that corruption may cause (Habib and Zurawicki 2002).

Table 2-9 Heterogeneity of the impact of regional corruption on firm sales

Heterogeneity by:	Firm size (number of employees)				Ownership of the firms			Origin of the firms		
	(1) Small (<10)	(2) Small (10 to 49)	(3) Medium (50 to 249)	(4) Large (>249)	(5) Foreign	(6) Domestic	(7) Other owner	(8) De-novo	(9) Old state	(10) Other origin
Panel A: share of sales										
Bribes as share Of sales	-0.798*** (0.037)	-1.009*** (0.048)	-1.012*** (0.058)	-1.302*** (0.113)	-1.260*** (0.253)	-0.950*** (0.207)	-0.750*** (0.152)	-0.936*** (0.171)	-0.894*** (0.164)	-0.898*** (0.161)
Observations	3859	2522	1560	827	475	469	7824	6807	983	978
R-squared	0.248	0.294	0.311	0.287	0.232	0.235	0.159	0.178	0.251	0.222
Panel B: frequency of corruption										
Frequency of Corruption	-0.730*** (0.035)	-1.002*** (0.041)	-0.918*** (0.052)	-1.054*** (0.098)	-1.303*** (0.235)	-1.060*** (0.245)	-0.665*** (0.193)	-0.835*** (0.218)	-0.835*** (0.211)	-0.853*** (0.186)
Observations	3692	2498	1551	830	484	449	7638	6591	1001	979
R-squared	0.216	0.266	0.271	0.239	0.237	0.231	0.139	0.153	0.237	0.204
Panel C: corruption as a barrier										
Corruption as a barrier to business	-0.686*** (0.036)	-0.890*** (0.048)	-0.801*** (0.060)	-0.936*** (0.102)	-1.293*** (0.279)	-0.950*** (0.277)	-0.668** (0.257)	-0.874*** (0.270)	-0.379 (0.257)	-0.426 (0.305)
Observations	3975	2591	1617	863	500	471	8075	7023	1019	1004
R-squared	0.188	0.195	0.203	0.177	0.198	0.214	0.131	0.150	0.203	0.151
Panel D: state capture										
State capture	-0.267*** (0.069)	-0.543*** (0.080)	-0.731*** (0.116)	-0.709*** (0.188)	-0.656 (0.572)	-0.587 (0.489)	-0.376* (0.227)	-0.548** (0.261)	-0.409 (0.343)	0.206 (0.311)
Observations	3610	2387	1483	779	460	433	7366	6405	926	928
R-squared	0.131	0.102	0.145	0.139	0.124	0.171	0.111	0.115	0.193	0.153

Note: standard errors clustered at the regional level in parentheses. ***, **, *indicate estimates significant at the 1%, 5% and 10% significance level respectively. The dependent variable is the natural logarithm of total sales in 2005. All regressions control for the industry.

Source: EBRD-WB BEEPS (2005) and authors' computations.

2.8 Conclusion

This chapter has examined the twofold effect of corruption on firm sales. First, we examine the effect of administrative corruption on sales, when the firms engage in unofficial payments and bribes in environments with corrupt public sectors, depicted by the measures of corruption as percentage of sales, and corruption frequency. Second, we examine the effect of state capture on sales, when the firms actually decide to bribe to achieve alterations in the content of government decrees affecting their business. Firms are affected to a different extent by these two forms of corruption. At the firm level, we find a negative relationship between corruption and unofficial payments on firm performance. On the contrary, state capture, the influence exerted on government decrees from some firms, appears positively correlated with firm sales. However, when we examine the impact of corruption on firm size and growth on aggregate, at the industry, regional, and country level, our results support a negative impact of administrative corruption and state capture on firm size and performance. The more detrimental effect of contextual corruption could be attributed to measurement error on the firm level measures of corruption, to the endogeneity of firm specific behaviour, and to the spillovers from firm corrupt behaviours. We then examine the effect of corruption on the development of different types of companies. The number of employees, the origin, and ownership of the company are found to significantly affect corruption's detrimental effect on firm size.

Our finding that contextual corruption is more detrimental for firm sales than the firm's own experience of corruption may have important policy implications. It suggests that the business environment has a large effect on firm behaviour, and that state capture exerted by some firms has important negative spillovers on their peers. Therefore, the development of appropriate competition policies, regulations and enforcement controls could strengthen the business environment and ensure more favourable conditions for the operation and growth of firms.

A main limitation of our analysis is its descriptive nature. It does not directly address firm level characteristics that may be correlated with corruption, and the possibility that corruption may be associated with other institutions that are also detrimental to firm performance. Further research is needed to identify the causal effect of corrupt practices on firm behaviour. The precise mechanisms through which corruption can impose barriers on firm performance could be further explored. We believe that firm panel data would allow significant progress to measure the effect of corruption on firm productivity, and disentangle the channels through which corruption affects firm performance. However the data on corruption and state capture used in this chapter are currently only available for 2005 in the EBRD-World Bank BEEPS Survey.

CHAPTER 3

3. Corruption and firm performance: Evidence from Greek firms

3.1 Introduction

International organizations, policy makers and governments are increasingly interested in the effects of corruption on economic development, with anti-corruption strategies being promoted worldwide (Organization for Economic Cooperation and Development European, United Nations, World Bank, European Bank for Reconstruction and Development, Transparency International). More recently, corruption has been identified as a critical issue for the growth of the Greek economy and a major impediment for the implementation of necessary structural reforms (Christodoulakis, Meghir, and Polemarchakis 2011). This chapter contributes to the empirical analysis of the impact of corruption on Greek firms. It disentangles the firm level impact of corruption from its contextual effect, and it analyses the heterogeneous effect of corruption on Greek firms of different size. Both firm level and contextual corruption is found to decrease firm sales and a robust negative relationship between firm corruption and growth is displayed. Furthermore, larger firms appear to suffer more from corruption than medium or small firms. Hence, the effect of corruption on firm performance is ultimately an empirical question. This chapter analyses the relationship between corruption, measured at the firm and industry levels, and firm performance. It is related to two main strands of literature.

The first strand of literature assesses corruption as an obstacle to economic growth. The close relation of corruption to economic growth, and the empirical findings on its negative effects on growth and investment have generated a higher interest in the study of corruption (Pradhan 2000). There have been significant and consistent research findings that show that lower perceptions of corruption are highly correlated with increased economic development (Ades and Di Tella 1999; La Porta et al. 1999; Treisman 2003). Other studies have shown that

corruption is an important obstacle to FDI inflows in the host country. Corruption in a country is related to lower levels of probable investment and it can increase the cost of negotiating with government officials for obtaining necessary licenses and permits. Furthermore, it increases the risks associated with investment as it can increase costs and operational inefficiencies (Cuervo-Cazurra 2006). Corruption can hamper growth by deterring entrepreneurship, wasting resources, hindering private investment, impeding the collection of taxes, and obstructing the implementation of necessary regulations.

The second strand of the empirical literature focuses on firm growth and demonstrates differing results. Some studies have supported the hypothesis that corruption can speed up the wheels of commerce and have a positive impact on firm development, by giving the possibility to overcome bureaucratic barriers and surpass timely processes (Wei 1998). Kaufmann and Wei (Kaufmann and Wei 1999) demonstrate that this can occur in very limited cases when bad regulations and harassment from officials are considered exogenous. However, they find a positive correlation in the tendency of firms to pay bribes and the time that is wasted on bureaucratic procedures. In some cases, firms engage in corrupt practices in an attempt to promote their short-term growth by facilitating transactions in the bureaucratic process. Ades and Di Tella (1999) show that higher corruption occurs in economies with trade barriers, where domestic businesses are less exposed to global competition, or where there are only few dominant businesses.

The chapter builds on this existing literature and makes three main contributions. First, it examines the association between corruption and firm performance in Greece and identifies the sectors that are most affected. The main studies in this area remain at the country level, whereas firm level studies are rarer. In Greece, studies have mainly targeted political and grand corruption at the country level, whereas firm level studies assessing corruption as a business barrier have not been realized. The data on Greece from BEEPS 2005 remain largely unexamined.

More specifically there has been no research produced analysing corruption extensively on Greece to allow for any policy considerations. Occasionally part of the survey data on Greece was used to provide information on the business climate at the country level, for the purpose of comparative analysis with the other countries of the survey. The most interesting part of the chapter lies on the level of precision used. The data provide information on firms at the regional level that have not been discussed and analysed until now. We find particularly interesting the possibility to examine the data on approximately 550 Greek firms and be able to draw conclusions at the regional and sectoral level. At present, there are household surveys, mainly conducted by Transparency International Greece from 2005, investigating corruption in Greece, and occasional surveys simply identifying barriers in doing business. Firm level surveys that assess corruption as a business barrier in Greece, using measures based on experience and not only perception of corruption, have not been implemented, whereas the BEEPS survey on Greece remains overall unexamined. The quality of this EBRD-World Bank survey and its implementation process ensure a high level of possible accuracy and reliability.

Second, the detailed analysis of the multifaceted impact of corruption on the firm level and the contextual effect of corruption at the sectoral level allows new policy conclusions to be drawn. Firms can engage in corrupt practices in an attempt to maximize their profits and overcome timely administrative processes. However, these practices are negatively and significantly associated with firm performance. This relation becomes more negative for firm size and growth when analysed at the sectoral level. The assessment of the level of administrative corruption and the consequent growth and operational business barriers, in different sectors across Greek-based firms, outlines the degree and spread of corruption and identifies sector specific constraints.

Finally, research on the different impact corruption has depending on the size of the business has been scarce. However, size has been proven to be a significant factor in firm growth

and performance. On the one hand, there are studies on large companies, or SMEs, and their effect on growth, which produce contrasting findings. On the other hand, there have been few comparative studies that provide information about all three types of companies at the firm level. Furthermore, the heterogeneous effect of corruption on firm growth based on size remains largely unexamined. We use quantile regressions to disentangle the heterogeneous effect of corruption on firm size. Small, medium and large enterprises appear to respond differently to several business constraints.

The chapter is organized as follows. Section Two discusses the specificities of corruption in Greece and the features of the sample that are relevant for this analysis. Section Three describes the data construction and identifies the level of engagement of different manufacturing sectors in corrupt practices. Section Four describes our main empirical findings on firm performance and corruption at the firm and sectoral level. Section Five examines the heterogeneity of the relationship between corruption and firm size. Section Six concludes.

3.2 Greek institutional features and sample

3.2.1 Domestic bribery underlines institutional weaknesses

It is globally recognized that business corruption hampers a country's economic development and has a negative impact on the international business environment. Recent surveys on public sector corruption and disclosures of corporate scandals in Greece have drawn attention to firm level corruption, its causes and consequences, exposing weaknesses in the institutional framework of Greece.

Administrative corruption, which affects citizens and households across Greece, is depicted in the National Study on Corruption in Greece, an initiative by the Greek Chapter of

Transparency International.[15] The study monitors public perceptions of corruption and experiences of bribery (Transparency International Greece 2008). It recently showed a drop in the amount of bribes and corrupt practices in the public and private sector in 2010, possibly suggesting that the economic downturn in Greece is also affecting the amount of administrative corruption. The public sector services that appear to be demanding the largest amount of bribes are the hospitals, followed by the tax authorities, and then the urban authorities. In the private sector the most corrupt services, as experienced by citizens, are the health and legal services (Transparency International Greece 2008).

Apart from corruption incidents in the public sector in Greece, over the last few years some cases of corruption and foreign bribery in Greece have been disclosed by foreign companies or their subsidiaries to ensure contacts, particularly in the defense, pharmaceutical and telecom and security systems sector. The cost of bribery to secure contracts was transferred to Greek taxpayers, and the price of products was often particularly high to offset the costs of the unofficial payments (European Parliament 2011; Corruption Watch 2011). The culprits have subsequently been brought to justice by the Greek authorities (Transparency International 2011). These cases underline the importance of compliance and ratification of global anti-corruption conventions. Multinationals and domestic companies should adopt ethical types of conduct that are in accordance with the laws and regulations forbidding transnational and domestic bribery (Boswell and Richardson 2003). The introduction of corporate governance systems and the adoption of global anti-corruption conventions are crucial. The recent scandals also highlighted the importance of a solid and effective institutional framework in Greece.

[15] In its fight against corruption, Transparency International (TI), founded in 1993, conducts surveys and provides annual corruption perceptions indices and surveys based on the direct experience of the respondents. These surveys have been widely used in recent years in the measurement and understanding of corruption.

The institutional environment is characterized by inadequacies in the legal framework regarding the criminal liability of corporations and the limited ability to prosecute politicians because of the Greek statute of limitation. This framework obstructs transparency in doing business, as it limits the penalties associated with cases of offering or accepting bribes. The justice system is also hampered by severe delays in the application of penalties (Transparency International 2011). The enforcement system is characterized by significant inefficiencies and delays in the prosecution mechanisms. The lack of independence of the judiciary is associated with an increased risk of corruption. The judicial system should be strengthened and inefficient regulations and weak contracts should be eliminated to promote transparency in the government systems (Sullivan and A. 2004). Furthermore, the inadequacies in the framework for complaint mechanisms for whistle-blowing protection and complaints need to be tackled (Transparency International 2011). These measures could encourage the development of public awareness and promote greater public accountability against corruption. This chapter focuses on administrative corruption, whereby firms engage in unofficial payments with public officials.

3.2.2 Measures of corruption and sample

This chapter uses the survey EBRD-World Bank BEEPS Survey, which is based on the experience and perceptions of managers. We use the survey conducted on Greece as part of a survey on comparator countries of Western Europe and East Asia in 2004 and 2005.

Information for the establishment of the sample frame was used from the National Statistical Service of Greece and ICAP Greece. The sectoral composition in terms of manufacturing and services was established by their relative contribution to GDP. The sample design based on the BEEPS sector GDP contribution was determined at 28% for industry and 72% for services in Greece. For the sample of firms to be representative for Greece additional criteria had to be met regarding the size, ownership, exporter status and location of the firms. The

number of firms interviewed is 546 and cover the regions of the Capital, Central West Macedonia, East Macedonia, Thrace, East Sterea, West Sterea, Thessaly, Epirus, and Peloponnese. All the firms in the sample are privately owned, 10% are foreign owned and 11% of firms are exporters. Firms that started to operate in the years 2002, 2003 and 2004 were not included in the sample (Synovate 2005).

We examine administrative corruption, which involves firms engaging in or being forced to engage in bribery and unofficial payments or gifts to government officials. Firms may be asked or forced to bribe to obtain rightful licenses, choose to bribe to extract profits, and speed bureaucratic processes in an institutional environment that allows these practices. We identify administrative corruption, as the percentage of total annual sales that a firm similar to the one represented by the respondent will typically pay in unofficial payments and gifts to public officials (please see Chapter 2, Section 2.3.2 for a detailed description of measures).

In the descriptive analysis we use two additional measures to identify administrative corruption. The first measure estimates the frequency of bribes that similar firms 'have to pay to get things done with regards to customs, taxes, licenses, regulations and services'. The second measure identifies corruption as an operational and growth barrier for doing business (please see Chapter 2, Section 2.3.2 for a detailed description of measures).

3.3 Descriptive Analysis

3.3.1 Descriptive Statistics

Table 3-1 presents descriptive statistics for the different measures of firm size, growth and corruption. However, it is important to note that it is very difficult to compare the different measures of corruption we use, as the questions they treat are different. Therefore, even if the results are lower, the impact on the firm size and performance could be higher.

Apart from the measures of corruption at the firm level, the measures of corruption are averaged at the industry level. The averages are leave-one-out averages. For example, for a given firm in the construction sector in Greece the average includes all the firms in the construction sector apart from the firm itself. This measure captures the contextual effect of corruption and avoids endogeneity concerns, as both firm level corruption and sales may be determined jointly by the firm and could be driven by similar unobservable firm characteristics.

Table 3-1 Descriptive statistics, sales, growth and corruption

Variable	Obs.	Mean	Std. Dev.	Min	Max
log sales	480	6.68	1.97	3.6	13.2
log sales in t-3	463	6.60	1.91	3.6	13.0
growth	463	0.02	0.22	-1.6	0.7
corruption	546	0.49	1.41	0.0	10.0
contextual corruption	473	0.52	0.82	0.0	10.0
corruption frequency	458	2.37	1.53	1	6
corruption barrier	529	1.69	1.00	1	4

Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 3-2 shows the correlations between sales, growth and corruption. The measures of corruption at the firm level are all positively correlated. At the firm level, corruption appears negative for firm size and growth, whereas at the sectoral level, contextual corruption appears more negative on firm performance. This underlines the importance of the sectoral environment for firm growth and operation.

Table 3-2 Correlations between sales, growth and corruption

	log sales	log sales in t-3	growth	corruption	contextual corruption	corruption frequency
log sales						
log sales in t-3	0.99					
growth	0.19	0.08				
corruption	-0.07	-0.06	-0.07			
contextual corruption	-0.08	-0.09	0.03	-0.01		
corruption frequency	0.16	0.15	0.06	0.31	-0.03	
corruption barrier	0.09	0.09	0.09	0.28	-0.02	0.46

Source: EBRD-WB BEEPS (2005) and authors' computations.

3.3.2 A negative association between corruption and firm sales

Among the factors that drive firms to engage in corrupt practices are market expansion and profit maximization ambitions. Firms often engage in illegal practices and bribes to ensure the success of their establishment and operations at first (e.g. securing of operation licenses), and then their expansion in a country. However, a corrupt environment deprives firms of equal market opportunities and increases the cost of doing business. Time and money consumed in bribing public officials and overcoming complexity in regulations raise business costs. In cases of high and widespread administrative corruption the operational ability of firms is obstructed. Moreover, their ability to enforce contracts and business opportunities is reduced (Sullivan and A. 2004).

Figure 3-1 presents the relationship between average corruption (the direct measure of corruption we use that is, as previously explained, the percentage of total annual sales paid in bribes to public officials, hereby referred to as corruption) and the log of total annual sales at the firm level in Greece. We observe a negative relation between corruption and the sales of the firm; when the extent of corruption is lower, the firm is characterized by a higher size of sales.

Figure 3-2 depicts the relationship between average corruption and growth[16] at the firm level in Greece. A negative relation appears between corruption and firm growth: when corruption increases, the growth of a firm slightly decreases.

[16] Growth is defined as the (log) size of sales in 2005 minus the (log) of sales in 2002, multiplied by 100.

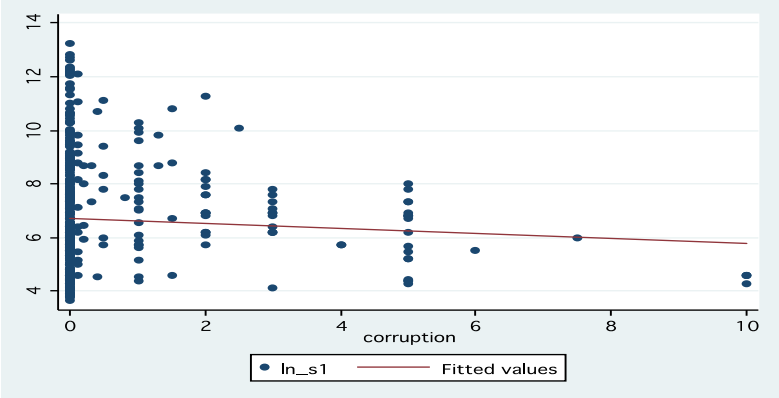

Figure 3-1Corruption and firm sales in Greece at the firm level

Source: EBRD-WB BEEPS (2005) and authors' computations.

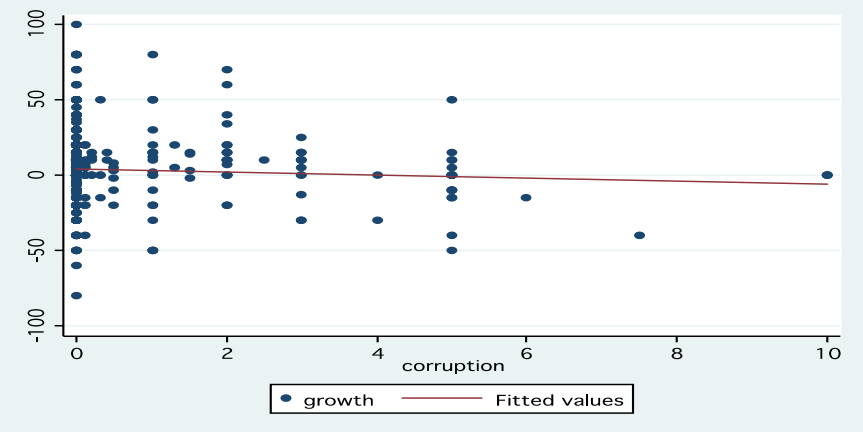

Figure 3-2 Corruption and firm growth in Greece at the firm level[17]

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 3-3 examines the different corruption patterns based on the size of the firms in Greece. Companies are divided into three main categories: those comprising 2 to 49 employees are categorized as small, medium up to 249, and large from 250 employees and above. Small and medium firms are then further divided into two subcategories, and large firms into three groups.

[17] Corruption in the survey is measured in 2005, whereas the growth of the firms is based on percentage change in sales in the last 3 years, during 2002–2005. It was not possible to use corruption in 2002, based on the previous BEEPS, because Greece was not surveyed. Therefore, by using the measure of corruption in 2005, the interpretation of the relation between corruption and growth of sales would be less clear, even though we would expect that the corruption levels would be similar across these years.

In the case of administrative corruption (proportion of bribes), small firms, and especially the higher end of these, are the most affected. The lowest end of medium firms is also affected, whereas medium firms with 100-249 employees and large firms seem to be the least affected. Large firms with 500–999 employees seem to pay a very low, almost zero amounts of bribes to public officials. The growth and associated power for large firms in the market and the increase of their experience could allow them to better position themselves and overcome possible operational barriers for their business. This finding is supported by the lower measures of corruption for large firms.

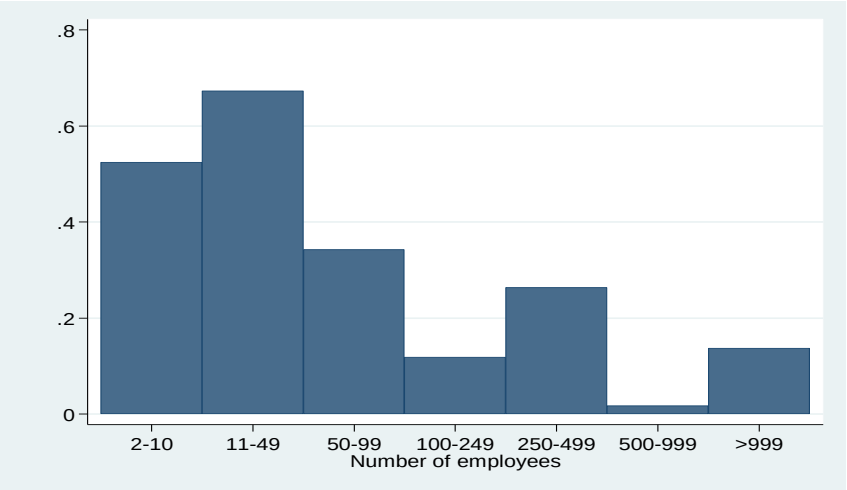

Figure 3-3 Average corruption and firm size in Greece

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 3-4 presents the average growth in firms of different sizes. The highest growth levels of around 15% are observed in large firms with over 999 employees, whereas the smallest levels are around 2.5% in micro firms of 2 to 10 employees. Similar, middle levels of growth, from around 5% to 8%, characterize small and medium-sized firms.

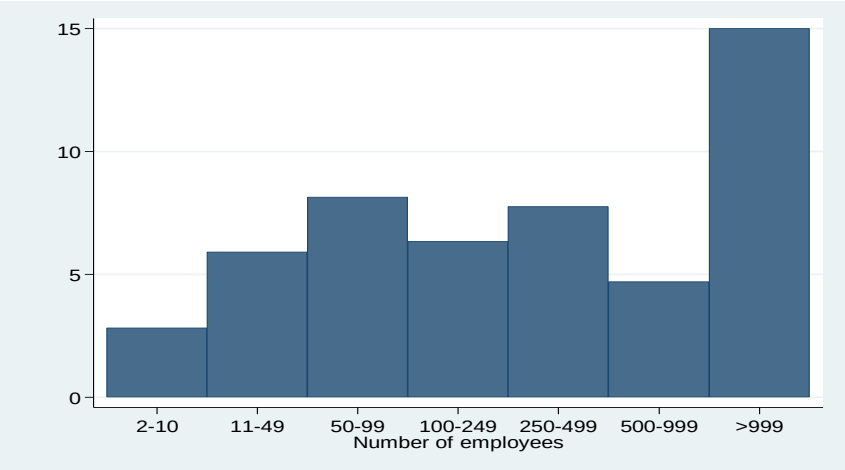

Figure 3-4 Average growth and firm size in Greece

Source: EBRD-WB BEEPS (2005) and authors' computations.

Figure 3-5 shows the geographical groups and our preferred measure of administrative corruption, the share of sales paid as bribes. The regional groups that altogether appear to be the most corrupt are the capital of Athens followed by cities with 250,000 to 1 million inhabitants, and finally cities with under 50,000 inhabitants. The level of engagement of cities with 50,000–250,000 inhabitants appears to be very low.

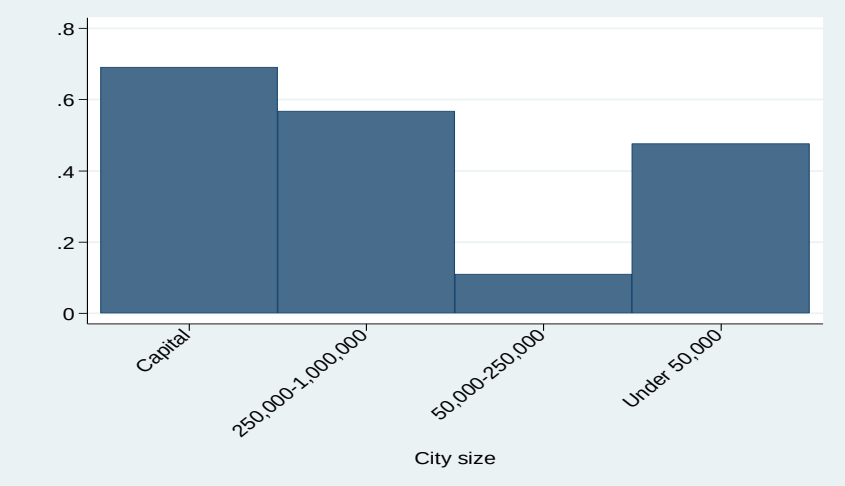

Figure 3-5 Average corruption across Greek cities

Source: EBRD-WB BEEPS (2005) and authors' computations.

3.3.3 Administrative corruption across different sectors

Table 3-3 presents corruption as a barrier in doing business across manufacturing sectors. This question does not specify whether the firms or public officials initiate bribing. However, it underlines the effect of widespread corruption in the public sector that could have an impact on firm performance according to firm managers. In mining and quarrying, 40% of the firms identify corruption as a major obstacle. Firms in wholesale and retail trade identify corruption as a major barrier for the growth and operation of their business, 21% of the firms evaluate it as a minor obstacle, and 24% as a moderate or major obstacle. In manufacturing, corruption is also found as a very important obstacle in doing business; 24% judge it is a moderate or major obstacle, and 19% a minor obstacle. In transport, storage and communication, 19% of firms also perceive corruption as a major or moderate obstacle, and 19% as a minor one, while real estate, renting and business services present similar results. In construction, 15% of the firms recognize corruption as a moderate or major barrier, whereas 21% consider it a minor barrier. We observe similar results in the hotel and restaurants sector, where 17% of the firms consider it a moderate or major barrier, while 27% view it as a minor barrier.

Table 3-3 Corruption as a barrier to growth by sector

		Corruption barrier		
	Obs.	Minor	Moderate	Major
Mining and quarrying	5	0%	0%	40%
Construction	61	21%	5%	10%
Manufacturing	98	19%	10%	14%
Transport storage and communication	43	19%	7%	12%
Wholesale and retail trade	178	21%	11%	13%
Real estate, renting and business services	54	17%	6%	11%
Hotels and restaurants	89	27%	7%	10%
Other services	18	17%	11%	22%
All sectors	546	21%	8%	13%

Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 3-4 observes the assessment of corruption frequency across sectors in Greece. It therefore depicts the frequency of cases in which firms are forced to bribe and cases of institutionalized corruption, in which firms are forced to bribe in order to secure access to rightful processes. In mining and quarrying, 40% of the firms state that corruption is always occurring. In construction, 30% of firms estimate that corruption is frequently, usually or always taking place, and 50% that it seldom or sometimes occurs. In the hotels and restaurants sector, 25% of firms estimate that corruption is a practice that occurs frequently, usually or always, whereas 34% of them consider it occurs seldom or sometimes. Managers in wholesale and retail trade evaluate corruption as a frequent, usual or standard practice in 22% of the firms, and as a seldom or occasional practice in 42% of them. In real estate, renting and business services, 21% of firms assess that corruption occurs frequently, usually or always, and 33% consider it to occur seldom or sometimes. In transport, storage and communication, 20% of firms evaluate corruption as a frequent, usual or standard practice, and 25% of them as a seldom or occasional practice. In manufacturing, 18% of firms find that corruption occurs frequently, usually or always, while 35% estimate that corrupt practices seldom or sometimes occur.

Table 3-4 Frequency of corruption by sector

		Frequency of corruption					
	Obs.	Never	Seldom	Sometimes	Frequently	Usually	Always
Mining and quarrying	5	0%	0%	40%	20%	0%	40%
Construction	48	21%	27%	23%	13%	15%	2%
Manufacturing	77	47%	23%	12%	5%	9%	4%
Transport, storage and communication	40	55%	15%	10%	5%	5%	10%
Wholesale and retail trade	154	37%	29%	13%	7%	10%	5%
Real estate, renting and business services	46	46%	11%	22%	15%	2%	4%
Hotels and restaurants	72	42%	28%	6%	8%	13%	4%
Other services	16	44%	25%	13%	19%	0%	0%
All sectors	458	40%	24%	14%	9%	9%	5%

Source: EBRD-WB BEEPS (2005) and authors' computations.

Table 3-5 displays unofficial payments and bribes paid as a share of sales by sector. The sensitivity of this question, linked to the disclosure of financial results, increases the possibility of underreporting (Synovate 2005). Mining and quarrying emerges as the most corrupt sector, with an average of 1.28%, which supports the previous findings on the high frequency of corruption and evaluation of corruption as a major business barrier. Firms in transport and storage and firms in construction also report that unofficial payments and bribes are a significant part of their sales, at 0.8% and 0.7% respectively. The bribes in the hotels and restaurant sector and the wholesale and trade are estimated at around 0.5%. The lowest amount of bribes as a percentage of sectoral sales is observed in real estate and renting at around 0.32%, and in manufacturing at 0.26% of sales.

Table 3-5 Unofficial payments and bribes as share of sales by sector

Variable	Obs.	Mean	Std. Dev.	Min	Max
Mining and quarrying	5	1.28	1.00	0	2
Construction	61	0.70	1.46	0	5
Manufacturing	98	0.26	1.09	0	7.5
Transport, storage and communications	43	0.80	1.98	0	10
Wholesale and retail	178	0.45	1.40	0	10
Real estate, renting	54	0.32	1.06	0	5
Hotels and restaurant	89	0.47	1.21	0	5
Other services	18	1.12	2.61	0	10
Total	546	0.49	1.41	0	10

Source: EBRD-WB BEEPS (2005) and authors' computations.

The level of corruption across sectors in Greece appears varied. The mining and quarrying sector and the construction sector display a pattern of regular engagement in bribing: an alarming 80% of the firms in these sectors respond that unofficial payments and bribes are

taking place, while the average bribes amount to 1.28% and 0.7% of annual sales. Furthermore, corruption is particularly apparent in the wholesale and retail trade and the hotels and restaurant sector, where 64% and 59% of firms respond positively on corrupt payments. Firms in the transport, storage and communications sector display differing results. While the highest number of firms in the sector, 55%, responds that corruption never occurs, the level of corrupt payments is the second highest, at 0.8% of total annual sales. Based on the frequency of payments and bribes given as percentage of sales, less unofficial payments seem to occur in real estate, renting and business services sector, and the manufacturing sector. Nevertheless, around half of these firms respond positively on corrupt payments taking place.

The sectors that overall appear to be the most constrained by corruption are the wholesale and retail trade, the hotels and restaurants, and the manufacturing sector. Around half of the firms in the wholesale and retail trade (45%) consider corruption a barrier in doing business, and similarly the hotels and restaurants sector and the manufacturing sector appear severely hampered by corruption (44% and 43% respectively evaluated corruption as a barrier). Overall, firms in mining and quarrying display concerning results: 40% respond that corruption is a major obstacle in their operation, and 40% of firms that bribing is always occurring. In the sectors of transport storage and communication, construction and real estate, renting and business services, corruption is also considered an important constraint in business by 38%, 37% and 34% of firms respectively. The analysis on the sectoral level provides a detailed overview of the business constraints generated by corruption across different sectors in Greece. Overall, we observe that corruption, irrespective of the sectoral engagement in bribing, is considered a significant barrier in doing business across all sectors in Greece.

3.4 Firm and contextual corruption in Greece

3.4.1 Firm level corruption and firm performance

In recent years, it has been widely recognized that corruption is a significant barrier to the operation and growth of firms. Dal Bo and Rossi (Dal Bo and Rossi 2007) find evidence in Latin America that corruption is harmful for firm productivity. Using data on Mexican states, Laeven and Woodruff (Laeven and Woodruff 2007) also find that Mexican states with more effective legal systems have larger firms. The harmful effect of corruption on firm performance is confirmed on a wide cross-section of countries by Beck et al. (Beck, Demirguc-Kunt, and Maksimovic 2003). However, there have been findings in the literature on the possible positive effect of corruption for some firms (Wei 1998). It has been supported that corruption could increase economic development, mainly because illegal practices and payments as 'speed money' could surpass bureaucratic delays; the acceptance of bribes in government employees could work as an incentive and increase their efficiency (Leff 1964; Huntington 1968) and because corruption is possibly the price people are forced to pay as a result of market failures (Acemoglu and Verdier 2000).

Table 3-6 presents the estimates of a simple Ordinary Least Squares (OLS) regression of the log of firm sales and growth on corruption, and includes controls for city and sector. Corruption, measured as the share of sales paid for bribes, is significantly and negatively correlated with the level of sales and growth at the 5% and 10% significance level. When we control for city, the relationship between corruption and growth is similar, whereas the association between corruption and firm size becomes more negative and significant at the 1% significance level. When controlling for sector, the association between corruption and growth becomes more negative and significant at the 5% significance level, whereas the association between corruption and firm size remains negative but insignificant.

Table 3-6 Firm Size, Growth and Corruption[18]

	No controls	Control city	Control sector	No controls	Control city	Control sector
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Log Sales	Log sales	Log sales	Growth	Growth	Growth
Corruption	-0.093**	-0.126***	-0.061	-1.189*	-1.133*	-1.315**
	(0.041)	(0.045)	(0.039)	(0.645)	(0.645)	(0.666)
Observations	480	480	480	463	463	463
R-squared	0.005	0.078	0.197	0.007	0.023	0.080

Standard errors robust to heteroskedasticity in parentheses. ***, **, * indicate estimates significant at the 1%, 5% and 10% significance level, respectively. The dependent variable is the natural logarithm of total sales. Source: EBRD-WB BEEPS (2005) and authors' computations.

3.4.2 Contextual corruption and firm performance

We shall now focus on the association between contextual corruption, measured among the peers of the firms at sectoral level, and firm performance. At the sectoral level, we expect that the relationship between corruption, firm size and growth will be clearly negative. Firms that are not involved in corruption may have less access to resources and increased costs, and their sales could be hampered by the discrimination and misallocation of resources induced by the bribing firms.

Table 3-7 describes how contextual corruption at the sectoral level relates with firm sales and firm growth. The relationship between contextual corruption and firm growth, in specifications without any controls or controls for city, appears insignificant. However, the relationship between contextual corruption and firm size appears negative and significant once we control for the size of the city where the firms are located. The coefficient of contextual corruption on firm size without any controls is -0.18, and insignificant at the 10% significance

[18]The log of sales distribution is approximately normally distributed.

level. When controlling for city, the effect of contextual corruption becomes more negative, with a coefficient of -0.21, and strongly significant at the 10% significance level.

These regressions do not include controls for industrial sectors, as the contextual corruption is computed at the sector level and would be highly collinear with the sectoral dummy variables. The identified association between contextual corruption at the sectoral level and firm sales indicates the systemic character of corruption. The association between administrative corruption at the firm level and firm size and growth appears negative (table 6). However, we find that the extent of the administrative corruption among the firm peers displays a larger negative magnitude than the estimates based on firm-specific measures of corruption (Table 3-7). Overall, the contextual effect of corruption suggests that the corrupt behaviour at the firm level could have important spillovers on their peers and competitors. Firms do not appear to internalize the costs of their own corruption for other firms. Hence, the contextual corruption generated from a corrupt sectoral environment could be much more detrimental for firm sales and growth than firm level corruption.

Table 3-7 Firm size, growth and contextual corruption

	No controls	Control city	No control	Control city
	(1)	(2)	(3)	(4)
Variables	Log sales	Log sales	Growth	Growth
Contextual Corruption	-0.180	-0.212*	0.558	0.475
	(0.132)	(0.125)	(1.028)	(0.986)
Observations	417	417	404	404
R-squared	0.007	0.065	0.000	0.018

Standard errors in parentheses are clustered at the sectoral level. ***, **, * indicate estimates significant at the 1%, 5% and 10% significance level, respectively. The dependent variable is the natural logarithm of total sales. Source: EBRD-WB BEEPS (2005) and authors' computations.

3.5 The heterogeneity of the relationship between corruption and firm sales

We shall now focus on the heterogeneity of the relationship between corruption and the sales of different types of firms. The size of the firm has been related to firm size and performance. However, the different effect that corruption may have on firms depending on their size and the level of business constraints it imposes on them has not been analysed in firms across Greece. According to recent research from the World Bank and the EBRD, the firms that are the most influenced overall by business constraints are small rather than medium or large firms, and generally those firms that can achieve more growth and create more jobs (Transition Report 2005). However, the question as to whether SMEs can actually generate more growth has initiated a lot of debate.

A causal relationship between the share of SME and growth has not been established. Large firms are able to take advantage of economies of scale and can afford fixed R&D costs, therefore, they may be able to promote innovation and productivity more than SMEs (Beck, Demirguc-Kunt, and Levine 2005). There is evidence that increased levels of innovation are related to larger firm size (Pagano and Schivardi 2003). In terms of employment creation and quality, large firms can provide greater stability and quality in employment and they appear to be equally labour intensive as SMEs (Little I., Mazumdar M., and Page J. 1987; Rosenzweig 1988).

However, SMEs are particularly important in an economy, and countries with faster rates of development are characterized by an increased share of SMEs and an increased SME growth rate (Beck, Demirguc-Kunt, and Levine 2005). Empirical research finds that the SMEs[19] contribute

[19] There have been various definitions of small, medium and large enterprises, and small and medium enterprises are often analysed together. According to the current definition of the European Union, small companies have less than 50 employees, medium more than 50 and less than 250, and large more than 250 employees.

more than 55% of GDP and 65% of employment in countries of high GDP per capital, and 70% of GDP and 95% of employment in countries of low GDP per capital (Ayyagari, Beck, and Demirguc-Kunt 2007). Consequently, the protection of their operation is crucial for the economy.

3.5.1 Corruption and the distribution of firm size

In order to assess the relationship between corruption and the distribution of firm size, we use quantile regressions (Koenker and Bassett 1978). Ordinary least squares (OLS) regression is based on the mean of the conditional distribution of the regression's dependent variable. This approach is used for two main reasons. First, the average effect of corruption on firm sales is generally the main parameter of interest. Second, it can often be implicitly assumed that corruption has the same effect on large and small firms. However, corruption may distort the distribution of firm sales. The analysis is mainly descriptive and aims to offer an understanding of the extent of corruption in Greece and provide for the first time an indication of its possible impact on the business environment. Based on the absence of panel data, as the survey was solely implemented in Greece in 2005, and given the sample size, it is not possible to address all the omitted variable biases. Even though it is not possible to ascertain direct causality, the correlations present some interesting patterns to identify which firms are likely to be most affected by corruption. Quantile regression models allow for a full characterization of the conditional distribution of firm sales with respect to the extent of corruption.[20]

Table 3-8 presents the estimates for the association between corruption and sales on the quantiles of the firm size distribution. The models used to construct these estimates control for city size[21] and we focus on the 0.1, 0.25, 0.5, 0.75 and 0.9 percentiles. Estimates at different

[20] See Angrist and Pischke (Angrist and Pischke 2009) for a recent review of the benefits of quantile regressions.

[21] Other estimates not controlling for city size present a similar pattern.

quantiles can be interpreted as showing the response of the log of sales to the extent of corruption at different points in the conditional sales distribution. For example, the point estimate for corruption on the quantile 0.5, the median, indicates that the median of the distribution decreases by 3 percentage points (0.03 log point) when the share of sales paid as bribes increases by one percentage point. By comparison, the point estimate for the upper decile (quantile 0.9) indicates that the same increase of bribes would decrease the upper decile of firm size by nearly 25% (0.22 log points).

It is noteworthy that the quantile coefficients increase with the considered quantiles. The largest effect of corruption is on the top of the firm size distribution, the coefficients of the third quartile (percentile 0.75) and the upper decile (percentile 0.9) are roughly similar, around -0.22, while the other quantile coefficients are approximately 0.03 or close to zero for the lowest decile. This is justified as the average point estimates (table 6) was around -0.1. This shows that the negative association between corruption and firm sales is larger for the firms belonging to the upper quantiles than for the smaller firms. Hence, corruption appears to have an important impact on the heterogeneity of firm size. Higher corruption tends to lower the average firm sales through the effect on the largest firms while the lower part of the firm size distribution is relatively unaffected.

Table 3-8 Corruption and the distribution of firm size, quantile regression estimates

	Quantile regression for log sales				
Quantile	0.1	0.25	0.5	0.75	0.9
	(1)	(2)	(3)	(4)	(5)
Corruption	0.000	-0.041	-0.030	-0.230**	-0.220
	(0.036)	(0.056)	(0.094)	(0.090)	(0.152)
Control for city size	Yes	Yes	Yes	Yes	Yes
Observations	480	480	480	480	480

Standard errors are bootstrapped using 100 replications. *** Denote estimates significant at the 1% level, ** at 5%, * at 1%. Source: EBRD-WB BEEPS (2005) and authors' computations.

These results are partly in line with previous results on less developed countries. Gallipoli and Goyette (Gallipoli and Goyette 2009) propose to explain the fact that the size heterogeneity across firms is greater for less developed countries than for developed countries by their larger degree of corruption. Using a sample of firms in Uganda, they suggest that small firms and entrepreneurs who would benefit from scaling-up sales and employment may refrain from doing so in order to remain informal and avoid tax liabilities and bribes. However, Emerson (Emerson 2001) using a panel of countries finds that this mechanism ultimately leads to a lower share of large firms in the more corrupt economies. More recently, Dusha (Dusha 2011) proposes a political economy model to rationalize these findings. In his model, corruption promotes entry at the low end of the productivity distribution and obstructs entry at the high-end, which has adverse effects on aggregate Total Factor Productivity.

Large firms face more impediments on their growth because of corruption than small and medium firms, while large firms engage in less corruption than smaller firms. Administrative corruption is found to be negatively and highly significantly related to business growth (Beck, Demirguc-Kunt, and Maksimovic 2002). Corruption is, according to much research, generally evaluated as an important barrier in doing business. Aidis and Mickiewicz (Aidis and Mickiewicz 2006) in their research on firm perceptions of business barriers and growth expectancy in Lithuania find that finance issues, reduced purchasing power of customers, and the inefficiency of investment funds are the most important business barriers after high tax rates. Even though corruption is ranked as an important but not the most critical business barrier, it appears to have the most negative effect on growth expectancy, indicating it constitutes a major impediment on growth.

In Greece the growth and performance of SMEs are severely hampered by limited access to finance, limited access to the international market, and legal and administrative burdens. In economic downturns the growth prospect of SMEs is affected by limited access to finance,

limited demand for their products and limited liquidity in the market. In order to support SMEs to overcome the economic crisis, the Greek government is prioritizing the implementation of concrete measures and necessary reforms, aiming to foster competition, productivity and innovation in the market, according to the priorities of the European Union (National Observatory for Small and Medium Enterprises 2008). Large firms usually have more opportunities to avoid business constraints, as they can internalize much of their capital via the financial markets and financial intermediaries and are less affected by the situation in the public markets.

However, SMEs often have some advantages in comparison to large enterprises because they are characterized by greater flexibility and an ability to adapt in different market conditions (National Observatory for Small and Medium Enterprises, 2008). This ability to adapt could support the finding of the chapter on SMEs being less hindered by corruption. Ayyagari (Ayyagari, Beck, and Demirguc-Kunt 2007) investigate the effect of financial and institutional barriers for SMEs and find robust evidence that financing constraints constitute a serious impediment to their growth and operation, and these constraints appear more significant than corruption. However, corrupt practices in doing business might be proven more inefficient and costly for large firms that compete at an international level. Such firms need to comply with international standards, adopt global business practices, and obtain the approval of the international business community through following legitimate policies. Another explanation why corruption can constitute a stronger barrier for the size and development of large firms is attributed to the fact that smaller firms are less noticeable and therefore they would be less approached for extracting rents, since their actual capacity to make unofficial payments would be limited. Additionally, smaller firms may be more financially constrained and therefore less likely targeted for bribes by public officials. However, as firms grow they would be more likely

pressed for bribes. Consequently, the lack of business efficiency caused by widespread corruption could be more costly and difficult to circumvent for large firms.

3.5.2 The asymmetric relationship between corruption and firm sales

The relationship between corruption and sales is heterogeneous among firms of different size. However, there is a systemic impact of corruption, and small and medium firms are also affected indirectly, on the sectoral level, from contextual corruption as discussed in the previous section. Business corruption decreases competition and efficiency and develops a 'rent-seeking' environment. The demand of bribes by public officials for the acquisition of licenses and permits could reduce the amount of firms that can enter the market and the growth of the existing ones (Sullivan and A. 2004).

The asymmetric effect of corruption on firm sales is confirmed when we look at the contextual effect of corruption. As before, contextual corruption is computed at the leave-one-out average of the firms of the same manufacturing sector. In Table 3-9 the effect of contextual corruption appears much more clearly in the upper tail of the firm sales distribution. Small firms appear again the least affected by corruption, the point estimate for the lowest decile being negative (-0.061) but insignificant at the 10% level. However there are substantial differences with the previous estimates at the firm level. The impact of contextual corruption appears more consistent and negative across quantiles. The quantile estimate of the first quartile (-0.131) is already significant at the 10% level and the median effect (-0.266) is only marginally smaller than the effect on the upper quartile and the top decile (-0.332 and -0.334). This means that contextual corruption, contrary to firm level corruption, tends to shift downward the whole distribution of firm sales, even if the largest firms are still the most affected.

Table 3-9 Contextual corruption and the distribution of firm size, quantile regression estimates

	Quantile regression for log sales				
Quantile	0.1	0.25	0.5	0.75	0.9
	(1)	(2)	(3)	(4)	(5)
Contextual corruption	-0.061	-0.131	-0.266*	-0.332	-0.334
	(0.099)	(0.118)	(0.149)	(0.247)	(0.375)
Control for city size	Yes	Yes	Yes	Yes	Yes
Observations	417	417	417	417	417

Standard errors are block-bootstrapped using 100 replications at the sectoral level. *** Denote estimates significant at the 1% level, ** at 5%, and * at 1%, respectively. The contextual corruption is computed at the leave-one-out average of the firms of the same manufacturing sector. Source: EBRD-WB BEEPS (2005) and authors' computations.

This systemic and contextual risk of corruption could be limited by improving the institutions that shape the business environment in Greece, thereby supporting the operation of large firms and SMEs. There have been policies addressed directly to the growth of SMEs, however, the results of the study show that large firms may be more hampered by administrative corruption. The overall improvement on the institutional environment could be beneficial for firms of different size and could promote entrepreneurship.

In a study by the Athens Chamber of Commerce and Industry, more than 1,100 respondents evaluated the main business constraints in firms across Greece. Corruption between firms and the public sector was identified as a major obstacle in doing business, as was bureaucracy in the public services, the large size of the public sector in Greece, and the inability to combat the unofficial economy and trade. The main factor identified to hinder entrepreneurship is the lack of stability and predictability of changes in the tax, employment and insurance regulations. Access to finance was also identified as a significant barrier in doing business (Athens Chamber of Commerce and Industry 2011).

Measures that could boost the overall business environment in Greece include a reduction of the operational cost of enterprises and administrative burdens and a simplification

of the business environment through changes in public administration. Overall, the obstacles for starting a business should be decreased (Ioannidis 2004). Business barriers in the entry and operation of a firm create an ideal environment for corruption to occur. In the cases where, in order to acquire a license for the start-up of a company, bribery is required, many companies are driven to the informal economy (Sullivan and A. 2004). The procedures for business licenses and business registrations should be decreased and simplified. The upgrade of public sector services through e-government could simplify procedures for setting up and operating a business, decrease time spent with public officials and improve effectiveness and transparency in the system. Reducing the discretion public officials have to interpret the regulations and raising tax compliance could also have a positive result in combating corruption (Sullivan and A. 2004). The modernization of the public administration and the implementation of reforms to simplify the regulatory environment could support business, decrease corruption and reinforce the international competitiveness of Greek firms (Ioannidis 2004).

3.6 Conclusions

The study analyses administrative corruption as a business barrier to firm size and performance in Greece, and identifies the sectors that are most hampered by corruption and the sectors most prone to corrupt behaviour. The contextual effect of corruption, measured by the extent of corrupt practices in the firm sector, appears to be more detrimental to firm performance than the firm experience of corruption. Hence, both the sector and the firm environment determine the overall, negative, and systemic effect of corruption on firms in Greece. However, firms respond differently to business barriers and the relationship between corruption and firm growth appears to be significantly affected by the size of the company. Firm performance may be affected by corruption irrespective of the degree of actual firm engagement. Small, medium and large firms are affected differently by administrative corruption, and the degree of their engagement in corrupt practices varies. We found that

corruption appears more detrimental for the sales in large firms. As large firms represent the major part of employment, this underlines the importance of institutional reforms that will improve the overall framework for doing business in Greece and target the most vulnerable sectors and firms.

CHAPTER 4

4. Corruption and other Barriers in Doing Business: Evidence from Greek Firms in Accounting, Construction, Catering, and Retail Clothing

4.1 Introduction

This study follows the previous chapter that investigated the relationship between corruption and firm performance in Greece using firm level data. In Greece, corruption appears overall negatively associated with firm size and growth, however firms often engage in corrupt practices and bribery of government officials (Athanasouli, Goujard and Sklias, 2012). Given the absence of panel data, as the data are only available for 2005 for Greece, the analysis on chapter three is mainly descriptive and it is not possible to address all the omitted variable biases and include firm fixed effects. However the findings present some interesting patterns to identify which firms are likely to be the most affected by corruption in Greece. To better explain these patterns, a more in-depth analysis of the barriers in doing business in Greece was conducted through interviews to specific sectors in 2013-14. From the 546 Greek businesses interviewed in the 2005 Business Environment and Enterprise Performance Survey (BEEPS, 2005), conducted by the World Bank and the EBRD, 229 (42%) responded that corruption is an obstacle for their operation. However, firms in some sectors reported being much more affected by corruption. Focusing on sectors in which 8 or more firms were interviewed by the World Bank and the EBRD to ensure statistical representativeness, I selected four sectors that declared being particularly affected for further investigation[22]. The sectors that were selected for the interviews are: accounting, catering services (restaurants), construction, and retail clothing. These sectors were depicted as being the most constrained by corruption and ranking corruption as a higher

[22] As in Table A1 of the Appendix

obstacle in doing business, based on the analysis of the answers of the Greek respondents to the BEEPS survey in chapter 3 (Athanasouli, Goujard, and Sklias, 2012).

I choose to focus on firms located in Athens for ease of access to the firms and because of the particular importance of capital cities for the development of good governance and political stability at the country level (Campante and Q-A. 2014; Campante, Do, and Guimaraes 2015). Focusing on a unique city also ensures that all firms face a similar institutional environment. I restricted the firms surveyed to small and medium-sized enterprises (SMEs, 0-249 employees) that account for 99.9% of enterprises, more than 85% of employment and 72% of valued added in 2013, a considerably higher share of the economy than in the rest of the European Union (European Commission 2014). Moreover, the recession, prolonged payment delays, restrictive financial conditions, and the lack of structural reforms may have affected SMEs more than large enterprises (GSEVEE 2014).

There was a total of 24 firms that were contacted, 6 for each sector, to participate in the survey, out of which some firms did not wish to answer stating various reasons, as the time needed to complete the survey, travelling obligations, or the unavailability of business manager. Some businesses that were interviewed at the first stage did not wish to further proceed with the questionnaire as they were worried about issues related to their anonymity, even though they were assured that no information would be released on their name or their company. In total, 16 firms answered the Survey. The majority of the respondents were owners and managers of the selected firms.

The firms were either private or family businesses, and most of them were domestic firms, owned by Greek businessmen. There is one firm owned by a foreign businessman in the sample. The age of the firms varied from 4 years to 45 years and the majority are long established firms with an average age of around 20 years. There is only one new firm in the

sample, whereas the majority of firms have more than 10 operation years. The size of the firms in terms of employee workforce varies from 2 to 50. The majority of firms have less than 10 employees, and only one firm is medium size with 50 employees. I focus on the barriers to firm growth and the severe impact of the 2013-14 economic downturn and its interactions with the business environment, as many firms mention that their survival is at risk despite their experience and years of operation. I also draw some conclusions why the selected sectors appear more vulnerable to corruption, bureaucracy and the overall business environment. However I cannot thoroughly analyse problems related to young firms or the establishment of new businesses in the sample I collected.

The interviews were conducted in two stages, from September 2013 until December 2014. Firstly there was a phone conversation to be able to provide some background information on the survey and its purpose, and acquire some information on the company and to discuss the willingness of the businessmen to participate in the survey. The first stage of interviews allowed the respondents to talk freely on their activities, the business environment, and the barriers they are currently facing. The respondents were then given to complete the quantitative part of the questionnaire. However after the first stage of interviews, and the collection of various notes from the different firms, it became evident that the questionnaire would benefit from some more open-ended questions where the businessmen could offer their insight on the business environment and the barriers in doing business in their sector, as well as the impact of the current economic climate and the Greek crisis in their sector. The majority of firms had often mentioned these issues during the first stage.

The second qualitative part of the interviews was designed to gain further insight on the business environment and allow a more in depth analysis of public sector issues, policy design and sectoral problems in Greece. Questions related to the impact of the crisis on corruption, undeclared work and underreporting of profits were added. Respondents were also asked for

their comments on several statements regarding their sector being more vulnerable to corruption and state bureaucracy and the reasons behind this, the ways to increase transparency in their sector and promote doing business in their firm. Comments were also asked in several other questions that asked the businessmen to rank business barriers, in order for them to be able to mention any specific barriers related to their business. Finally the businessmen were asked for any additional comments at the end of the survey, where they could freely discuss and emphasize any other aspects of the business environment, not already covered in the questionnaire.

The remainder of this chapter is organised as follows. Section 4.2 describes the survey in more details. Section 4.3 presents qualitative patterns of firm's answers about the main barriers to business development and firm growth in Greece. Section 4.4 turns to firms' assessment of e-government as a possible solution to improve administrative efficiency and relationships with the private sectors. Section 4.5 presents an analysis of broader issues from businessmen open-ended answers, and section 4.6 concludes.

4.2 Background information on the survey and communication with firms

During the interviews I explained to the respondents that the questionnaire and the interview process was for research purposes only, and that their anonymity would be maintained and no information on their company would be released. The businessmen were made aware of the BEEPS survey conducted in Greece by the World Bank and the EBRD in 2005, and of the previous work I have conducted on the sector specific barriers (Athanasouli, Goujard and Sklias, 2012). I explained to them that the purpose of this study was to understand the conditions necessary for improving the climate for doing business in Greece and to shed some light on the business barriers specific to their sector. I made clear to the respondents that I have a personal research interest in understanding the difficulties they face and that the goal of the

study is to ultimately be able to draw attention on the barriers in doing business in Greece and in their specific sector and depict some measures that would reinforce the business activity in their sector.

The respondents were initially skeptical about the content of the interview and its use, however after the initial discussion of the purpose of the study and the interest in their sector, the majority seemed quite eager to openly talk about the challenges they are facing, and reply to the questionnaire questions. On the first stage of the interview the businessmen were given time to openly discuss the difficulties they are facing, and the business environment in Greece. This step seemed quite important for the interview as it allowed the establishment of a communication between the interviewer and the interviewee and some trust before proceeding to the actual questionnaire questions. Notes were kept that were later used to form the second stage of the interview, which included the questionnaire, adapted to include some additional questions.

The overall environment during interviews was friendly and open. The businessmen seemed eager to take the opportunity to discuss their difficulties and express their views on the dealings with public officials, state bureaucracy and corruption. In some cases they even admitted their own wrongdoings in engaging in corrupt activities with public officials to get things done in terms of licenses mainly, and in some cases the businessmen indirectly admitted not being able to declare all their staff as in the current conditions their firm is struggling to survive. A strict compliance to the rules and a respect to the regulations in place were largely missing in the firms that were questioned. The respondents overall shared the belief that it is logical not to comply to the rules, when these constantly change, and when there are so many contradictory laws. Even the firms that wanted to fully comply with the letter of the law complained that it is almost impossible to do that successfully as there will always be another law that states something different or the demands for their business operation will be so

lengthy that it will be nearly impossible to meet them. Several businessmen stated that even if they make every possible effort to “tick all the boxes”, they would still be unsure of the outcome in an inspection by a public official. The complicated administrative system and regulatory system makes it easy to find faults in inspections or applications for business licenses and other business documents.

All the businessmen emphasized the instability and uncertainty created by the frequent change of laws and regulations, the problems of the court system not being consistently impartial and affordable or able to enforce its decisions, and the resulting discretionary power of public officials that leads to increased corruption and bureaucracy. The majority of the respondents did not trust the court system on being fair and impartial, fast or able to enforce its decisions. As a result, they reported that disputes were frequently and informally settled outside the court. Though such informal agreements may arguably speed up small business dispute settlements, they may be difficult to implement in complex or large-scale cases, and may not always result in the protection of all parties. All firms recognised that the current economic crisis in Greece maintains or in some cases increases corrupt activities. This confirms partly the observed increase in tax evasion and share of non-declared activity following austerity measures in Greece between 2010 and 2012 (Pappadà and Zylberberg 2015). All firms believe that e-government can be a successful tool in decreasing corrupt activities and reduce the discretionary power of public servants.

4.3 Survey Analysis of Business Barriers in Greece

The analysis of the specific questions about business conditions in Greece focuses on the court system, the quality of legislation, the frequency of unofficial payments and the evolution of corruption since the crisis, and firms’ assessment of the main business and administrative barriers. Concerning the court system, respondents were asked what the businesses (as a whole

and per sector) think of the court system in five key areas: fairness, corruption, speed, affordability and enforcement capability. Businessmen could choose six qualitative answers: never, seldom, sometimes, frequently, usually, always). For example, they stated if the court system was never or always fair. Table 4.1 reports the frequency of the six qualitative answers of the sixteen firms in the five key areas.

The vast majority of businesses in the sectors that were investigated report primarily that the court system is not fast (62% of the sample), while almost 60% mention that it is not fair and impartial on a consistent basis. The slow response of the judicial system is evidently a strong deterrent for businesses to actually go to court to challenge their stand. In parallel 69% of the sample find that the court system is seldom or never affordable, and only 7% believe that the system is fair and impartial, which makes the judicial institution much less appealing. Regarding enforcement capability, it is interesting to note that only 30% of the firms in the sample believe that the courts are usually or always able to enforce their decisions, while a remarkable 81% of the sample believes that the court system is frequent or sometimes corrupt. In the analysis per sector, corrupt courts are viewed as a major problem in all Catering services, in 50% of the Retail clothing, and in 25% of the Construction sector believing that corruption is seen frequently. Similarly the majority of firms believe that the courts are slow, 75% of firms in Construction, and 100% in the Catering business respectively. In these sectors external experts (i.e. engineers and health and safety experts) may be required by the courts, which could slow down the decision making process. Under these conditions businesses may use other means to solve their differences, and achieve their goal, which could lead to an increased level of non-transparent transactions with public officials and anti-competitive practices.

Corruption in Greece is a perplex phenomenon that characterises the crisis between society and political authorities (Koutsoukis and Sklias 2005). Corrupt practices have incalculable costs for the Greek economy and do not allow the country to bring out its potential and become

a competitive economy (Papaligouras 2001). Corruption at a European level is calculated as 120 billion dollars on an annual basis, whereas for Greece it is estimated to cost 14 billion dollars annually, and severely hampering businesses by increasing the cost of doing business by 12% (Papapanagos 2015). Transparency International notes that corruption in Greece has been found to resemble more that of a developing country instead of the levels of corruption in OECD and Eurozone member countries (Mitsopoulos and Pelagidis 2011). Indeed in Greece there has been recent qualitative evidence documenting the increasing negative effect of corruption on tax administration which can severely hamper economic performance, and the need for a better organizational structure, and computerization of tax administration services, additional institutional controls, and a simplification of the current tax system (Antonakas et al. 2013; Antonakas et al. 2014).

During the previous administrations, which included pre and post-crisis time scales, steps towards implementing a faster court decision-making process were made. However, the approach has been only incremental and the high bureaucracy remained, while the spread of the crisis removed necessary funds for the implementation of ambitious measures resulting in many of the decisions not being implemented. Mitsopoulos and Pelagidis (2011) state that there is a significant cost stemming from the inefficiency of the judiciary and the absence of competition in the market for legal services that results in a decreased quality in the judicial services, and a low speed in the judicial system. It is evident that even today the Greek courts have not installed any means of digital technology i.e. microphones and recording equipment, which leaves the courts civil personnel and lawyers writing and proof checking thousands of pages of court session minutes. Besides the needed computerisation of Greek courts, needed medium-term reforms include the establishment of specialised courts, promoting alternative formal dispute resolution mechanisms, and improving checks and balances. In addition, the slow procedures and their accumulation during the crisis led to a massive case backlog (especially pronounced in

administrative and tax courts) that must be dealt with by increasing judicial activity and its speed (Papaioannou, Portes, and Reichlin 2015).

Table 4-1 Court system findings

Court System	Never	Seldom	Sometimes	Frequently	Usually	Always
Fair and Impartial	7%	29%	29%	29%	7%	0%
Corrupt	0%	18%	36%	45%	0%	0%
Fast	62%	38%	0%	0%	0%	0%
Affordable	23%	46%	8%	8%	15%	0%
Able to enforce its decisions	0%	8%	23%	38%	15%	15%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Firms also appear to suffer from the uncertainty surrounding laws and legislations, stemming both from a lack of information and from their instability. Overall, around 70% of the businessmen believe that the information on laws and regulations is hard to access, and that their interpretation is not clear and consistent (Table 4.2).

All sectors appear equally affected by the uncertainty surrounding laws and legislations, though it is difficult to draw a certain conclusion based on the limited sample size. Generally 50% or more of the businesses in each sector feel that the regulations that affect them are ambiguous and not clear (Table 4.3). In Construction 75% believe that the laws and regulations affecting their business are not consistent and clear, while in Accounting the percentage reaches 50%. In Catering services there are no firms that find the laws clear, whereas in Retail around half of the firms believe the regulations are not clear and consistent. The difficult access to information and the lack of about where to find the appropriate laws may act as a significant entry barrier to new start-ups but also hinder the growth of established firms, which are predominantly represented in the sample.

Table 4-2 Laws & regulations findings for all sectors

Laws & Regulations	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
1. Information on the laws and regulations affecting my firm is easy to obtain	31%	6%	31%	13%	13%	6%
2. Interpretations of the laws and regulations affecting my firm are consistent and clear	31%	13%	25%	13%	12%	6%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Table 4-3 Laws & regulations findings per sector

Laws & Regulations	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
Accounting	0%	25%	25%	50%	0%	0%
Catering services	75%	0%	25%	0%	0%	0%
Construction	25%	25%	25%	0%	25%	0%
Retail Clothing	25%	0%	25%	0%	25%	25%
All sectors	31%	13%	25%	12%	13%	6%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

The enforcement of laws and legislations appear particularly costly and lengthy for firms, and widespread corruption limits the help they could get from the administration. Only 6% of the firms do not see as a waste of time the lengthy process of asking civil servants necessary information or advice on the legal aspects of their business. This may hinder entrepreneurial activity and firm growth as necessary information such as the legal requirements towards the setting up of a business. Moreover, the confidence in the state mechanisms both against corruption and professional conduct is diminished by the widespread perception of corruption among businessmen. To the question asks how often the statement is true: 'If a public official is acting against the rules, I can go to another official or the supervisor without ending to bribery/gifts?' only 21% believe that they can frequently or usually go to someone else. This shows that corruption in its majority is perceived as unavoidable and that the business

confidence towards the state and the efficiency of the mechanisms in place to support businesses is particularly low.

Bribery and unofficial payments are common practices across different public institutions, and the expected amount of bribes for specific administrative procedures is often well known. Businessmen were also asked how often the following statements are true: It is usual in my sector to provide some kind of unofficial payment/'gift' for permissions, rulings and other documents needed from the state (Table 4.4). Only 7% of firms in total (which are solely in the retail clothing sector) acknowledge that unofficial payments never occur. The majority of the sample (93%) thinks that it is usual that unofficial payments take place at least to some extent. When asked if they know beforehand the amount needed for this unofficial payment/'gift' (Table 4.5), businessmen in some sectors also appear particularly well informed about bribing practices. In Construction 75% of firms answered that unofficial payment or 'gift' occurrence is a common practice, and 75% usually know beforehand the amount of the bribe. In Catering services another 75% state that they usually know the amount, which infers that in these two sectors it is common practice to bribe government officials to get things done and this practice is so widespread that the amount is most of the times known for the particular business requirement.

Table 4-4 Unofficial payment/'gift' occurrence

	Never	Seldom	Sometimes	Frequently	Usually	Always
Accounting	0%	0%	67%	33%	0%	0%
Catering services	0%	0%	0%	75%	25%	0%
Construction	0%	0%	25%	0%	75%	0%
Retail Clothing	25%	0%	25%	25%	25%	0%
All sectors	7%	0%	27%	33%	33%	0%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Table 4-5 Known unofficial payment/'gift' amount

	Never	Seldom	Sometimes	Frequently	Usually	Always
Accounting	33%	0%	67%	0%	0%	0%
Catering services	0%	0%	25%	0%	50%	25%
Construction	0%	0%	25%	25%	50%	0%
Retail Clothing	33%	33%	0%	0%	33%	0%
All sectors	14%	7%	29%	7%	36%	7%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Public procurement procedures, tax authorities and business licensing appear particularly affected by corruption. Firms were asked in return for what services the unofficial payments are usually made in a given year in order to identify the state agencies, in which corrupt transactions typically occur. Table 4-6 shows the frequency of bribes for all the sectors, in which it seems that for specific areas such as obtaining government contracts a remarkable 93% of the sample replied that unofficial payments may be made, while half of the respondent firms stated that these are a frequent or usual practice. Similarly, in relation to dealing with tax authorities a stunning 86% of the sample replied that bribing is either a standard practice or that it can at least sometimes occur. Only 14% of the whole sample replied that bribing when dealing with tax issues never occurs. Bribing to obtain a business license can occur in 80% of the firms, while in Catering and Construction 50% and 75% of firms respond that bribes for business licensing frequently or usually requires some kind of 'gift'. On the contrary in Accounting and Retail clothing, where there is not the same frequency and need for state officials' inspections, the percentage stating that unofficial payments are a standard practice drops to 25% and 0%. Interestingly, a large 70% of firms mention that bribing may occur for influencing legislation and government decrees. In dealing with courts only a 20% of firms state that bribing never takes place, another 20% believes it occurs frequently or sometimes, and the majority of firms believe that it can seldom occur. For even basic requirements for the set-up of a business, such as connection to public services, deal with fire, health and safety, or environmental inspections,

unofficial payments may be required. The largely different findings highlight the inconsistency in the provision of services and in the quality and strength of institutions in Greece.

Table 4-6 Frequency of unofficial payments/'gifts' in state organisations

	Never	Seldom	Sometimes	Frequently	Usually	Always
To get connected to public services	40%	26%	20%	7%	7%	0%
Obtain business license	20%	40%	0%	20%	20%	0%
Obtain government contracts	7%	7%	29%	21%	29%	7%
Deal with health and safety inspections	11%	44%	11%	0%	22%	12%
Deal with fire inspections	36%	37%	0%	0%	9%	18%
Deal with enviromental inspections	43%	29%	14%	14%	0%	0%
Deal with taxes and tax collection	14%	0%	43%	29%	14%	0%
Deal with customs,imports	50%	8%	8%	25%	9%	0%
Deal with courts	20%	60%	10%	10%	0%	0%
Influence legislation, decrees	30%	30%	30%	0%	10%	0%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Corrupt practices differ widely across sectors. Table 4.7 displays the share of firms in each sector that state that bribes for the different services and transactions with public officials never take place. The Construction sector seems to be strongly affected by unofficial payments all across the spectrum of services, except the area of lobbying for specific law creation. The four surveyed firms in Construction state that bribes may take place in all the services in question, and 77% of firms assess that bribes may take place in influencing legislation. Retail clothing seems to be the least affected sector, whereas Accounting and Catering are in the middle. Overall, businesses with more interaction with the government are prone to higher rates of corruption and unofficial payments. Although it seems that Retail clothing and Catering services

are less prone to bribing, when it comes to dealing with the Fire Safety authorities for obtaining a Fire safety license, both sectors show a percentage of more than 50% of illegal payments usually happening, with Catering suggesting that 50% of the time unofficial payments always happen[23]. Similarly, for taxes and tax collection the answers show that only a 25% in Retail Clothing and Accounting believe that bribes never take place, whereas in Construction and Catering there are no firms stating that bribes never happen.

Table 4-7 Frequency of unofficial payments/'gifts' in state organizations per sector

	Retail Clothing	Construction	Catering	Accounting
		Never		
To get connected to public services	67%	0%	50%	50%
Obtain business license	67%	0%	0%	25%
Obtain government contracts	33%	0%	0%	0%
Deal with health and safety inspections	100%	0%	0%	0%
Deal with fire inspections	50%	0%	50%	33%
Deal with enviromental inspections	100%	0%	50%	33%
Deal with taxes and tax collection	25%	0%	0%	25%
Deal with customs,imports	75%	0%	50%	50%
Deal with courts	50%	0%	0%	33%
Influence legislation, decrees	100%	33%	0%	0%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

The results of my survey confirm the large number of corruption cases reported by the Greek Civil Servant regulatory body (General Inspector of Public Administration 2014) and the

[23] Findings based on additional answers from the respondent firms on question 11.

widespread perception of corruption among Greek households. Between 2007-2012 about 1,300 public officials have been prosecuted for 2,200 illegal acts. Among the public officials were 128 income tax regulators, 68 doctors, 56 teachers, while the vast majority of 47% included officials in the local municipalities, councils and prefects. In order to tackle this kind of behaviour, the Council of State passed a law in 2014 (Council of state decision number 1900/2014) in accordance with the EU norms and directives, under which there is an automatic position removal for illegal or corrupt activity of public officials. The results of (Transparency International Greece 2013) that regularly collect survey of households' experience of corruption are also in line with my results. According to households, tax authorities and civil area planning authorities remain particularly sensitive to corruption which can be mostly attributed to public officials turning a blind eye towards VAT offences and some construction permit issuances respectively, while the Ministry of Transport, local municipalities, the social security foundation and power sector companies account for about 11% in total (Figure 4.1).

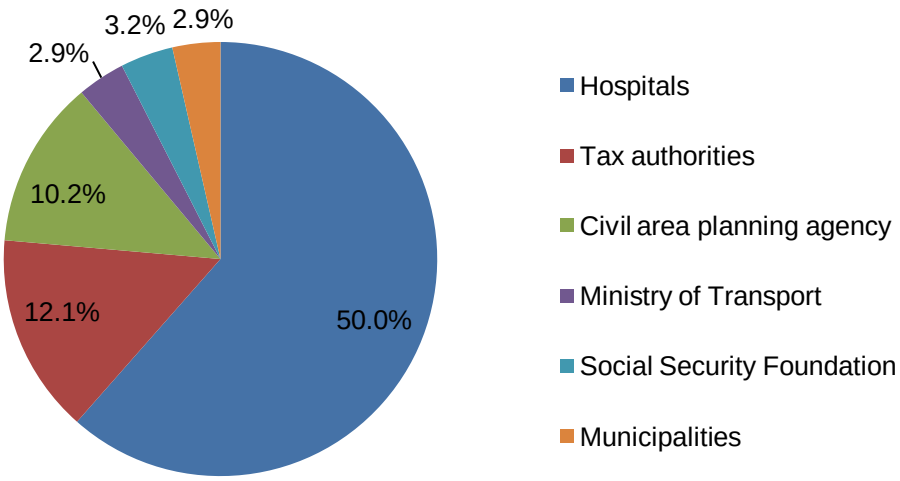

Figure 4.1 Public sector corruption breakdown

Note: Department/service in which instance of corruption were reported in 2013. Replies from households who have recently been asked to pay a bribe in order for their affairs to be attended or more quickly settled. Source: National Survey on Corruption in Greece 2013, Transparency International Greece.

4.4 Corruption, Shadow Economy and Greek Debt Crisis

Corruption has often been characterised as a main cause of the debt crisis in Greece and an inhibitor of development (Venetsanopoulou 2014). Sklias and Maris (2013) highlight the structural weaknesses of the Greek economy and observe that the crisis in Greece is not only due to economic factors but is largely due to the political and institutional conditions and development over the last three decades. Specifically they point out that the unsuccessful Europeanization, and the institutional environment characterized by increased levels of corruption, power of syndicates and interest groups on shaping laws and regulations, and the political instability are important factors that led to the current crisis. Indeed, as Koutsoukis et al. (2012) underline there have been too often government changes over the last decades in Greece, with the average term for single ruling parties being 2.86 years, significantly lower than the full term of 4 years. Pelagidis and Mitsopoulos (2009) explain that there is an immediate need to ensure accountability and transparency in state administration, and state that the design of the political system in Greece with interest groups, lack of independence in the media, administrative dysfunction, and inefficient rule of law lead to the blockage of reforms and widespread rent seeking. They support that politicians with reform agendas are easily removed whereas politicians that collaborate with special interest groups are secured with long political careers (Pelagidis and Mitsopoulos 2009).

Sklias (2011) discusses the crisis in Greece as a cause of different factors both at the national and at the European level, and notes that the Greek crisis underlined that Greece and other peripheral European economies are susceptible to economic shocks that are hard to overcome because of conflicting interests with Europe. Sklias underlines the structural weaknesses, and artificial construction, insufficient coordination of the European Economic and Monetary Union (EMU), and questions whether the EMU principles can support economic and financial sustainability for its member states (Sklias, 2011). Furthermore Papadimitriou explains

how the debt has increased the last two decades in OECD countries, and comments that the debt crisis in Greece has not been properly addressed by the Eurozone, as its response was focused on the symptoms but did not treat the root of the problem, whereas an effort to succeed a convergence between South and North European member states was largely missing. He supports that the crisis has its root causes in the structure of the Eurozone that left room for fiscal indiscipline, and that a response to the current debt crisis in Greece would be a significant debt restructuring to restore competitiveness and lead to sustainable growth (Papadimitriou 2008; Papadimitriou 2013). In addition he notes the need for a reorganization of the public administration and the state functions and structure, as well as a possible redefinition of social values (Papadimitriou 2011).

In line with this research Mitsopolous and Pelagidis (2011) observe that the elevated administrative costs, high corruption, and a weak business environment are a primary cause of the current decreased competitiveness of the Greek economy and outweighed the benefits from entering the Eurozone. A comparative study on Greece and Cyprus conducted by Rapanos and Kaplanoglou (2014) shows that the prolonged crisis in Greece is not only explained by the austerity of the adjustment measures but also because of the weak quality of institutions. They note that a low governance quality and control of corruption in Greece, much lower compared to Cyprus that has actually maintained high levels of governance during the crisis, above than the European average-as opposed to a falling institutional quality in Greece during the crisis which further retards the economic recovery in the country (Rapanos and Kaplanoglou 2014).

From the findings of the survey it appears that the frequency of corruption, tax evasion and illegal employment are perceived to have increased or stalled during the economic crisis in Greece. A total 93% of businesses agree that the level of corruption is maintained by the current economic crisis (Table 4.8). Furthermore 87% think that the economic crisis has increased the frequency of corruption cases and unofficial payments. Though it is difficult to assess how

corruption evolved for private companies, these findings appear somewhat in contradiction with households' assessments. Transparency International Greece (2014) regularly collects survey of households' experience of corruption. These surveys show that the share of households reporting instances of corruption during interactions with the public sector decreased from 8.5% in 2007 to 5.6% in 2013 (Transparency International Greece, 2014). A possible explanation is that business owners and managers are affected by different forms of corruption than most households, though other alternative explanations are also possible, such as my much smaller sample size or my focus on corruption in the Athens region.

Table 4-8 Corruption and illegal activities during the economic crisis

	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
1. Corruption is maintained by the current economic crisis	0%	0%	7%	33%	40%	20%
2. The economic crisis has increased corruption and unofficial payments	0%	13%	0%	34%	40%	13%
3. The economic crisis has decreased the amount of unofficial payments	7%	12%	19%	25%	25%	12%
4. The economic crisis has reduced corruption overall	47%	33%	20%	0%	0%	0%
5. The economic crisis leads to tax evasion	7%	7%	13%	27%	33%	13%
6. The economic crisis leads to undeclared employment	0%	0%	13%	20%	54%	13%
7. Corruption will only decrease if there is economic growth in my country	7%	7%	14%	14%	44%	14%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

At the same time, an aspect of shadow economy is highlighted in the survey. Table 4-8 finds that a total of 73% and 87% of the firms I interviewed agree that the crisis leads to increased tax evasion and illegal employment. This phenomenon of shadow economy is encompassed and interrelated with corruption (Vavouras 2013). Shadow, or underground economy is defined as covering activities related to the legal production and provision of goods and services that are purposefully hidden from the public authorities in order to surpass the legal costs of social security contributions, the costs related to tax payments, costs of compliance with administrative rules and procedures, and with certain legal requirements especially related to labour regulation (Schneider, 2005). The cost of tax compliance, and national insurance payments, and complex regulatory framework have been identified as important causes for corruption and shadow economy. Shadow economy may complement a corrupt state as the underground activity may be chosen mainly from individuals that may lack the resources or connections to bribe, or may even be unwilling to bribe to get things done and therefore choose to go to the unofficial economy (Katsios 2006). It is of primary importance to analyse the causes of the shadow economy in Greece to manage to curtail hidden activities economy, and move them to the official economy, as there can be potential benefits for Greece, especially under the current debt crisis (Vavouras 2013).

Schneider calculates the average shadow economy in Greece as approximately 27% of GDP from 1999 to 2010 (Schneider 2013). Vavouras et al. (2013) find that the unofficial economy increases the debt to GDP ratio of a country mainly by the reduction of tax and social security contributions, and by the lower recorded level of GDP as not all activities are recorded. Interestingly they find that if that shadow economy was recorded to the official GDP from year 2006 the size of the debt could have been in 2010 almost half its size; 79.8% as opposed to actual 144.9% of GDP (Vavouras et al. 2013). Bitzenis and Makedos (2013) also support that part of the activities of the underground economy should be included in the GDP as a response to the

crisis, and that strategies aimed to move informal activities to the formal sector should be the primary political focus (Bitzenis and Vlachos 2015).

Looking at the evidence presented in each sector for corruption and shadow economy, it appears that all sectors report an increase in illegal activities during the crisis. A total of 75% of the businesses in Accounting and Catering services agree with the statement that the economic crisis has increased corruption and unofficial payments (Table 4.9). Remarkably, all firms in the Construction sector mostly agree with the aforementioned statement. In parallel, both the Construction and the Retail services sector mostly agree by around 70% or more that the economic crisis leads to undeclared employment, while all firms Accounting and Retail businesses believe this statement is true (Table 4.10).

Table 4-9 The economic crisis has increased corruption and unofficial payments

	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
Accounting	0%	25%	0%	75%	0%	0%
Catering services	0%	25%	0%	25%	25%	25%
Construction	0%	0%	0%	0%	100%	0%
Retail Clothing	0%	0%	0%	25%	50%	25%
All sectors	0%	13%	0%	34%	40%	13%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Table 4-10 The economic crisis leads to undeclared employment

	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
Accounting	0%	0%	0%	50%	50%	0%
Catering services	0%	0%	0%	0%	75%	25%
Construction	0%	0%	25%	0%	75%	0%
Retail Clothing	0%	0%	33%	33%	0%	33%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Most firms report having been critically affected by the crisis, besides the perceived increase in illegal activities. A total 93% of businessmen state that the crisis affected the survival of their business (Table 4.11). All firms of the Catering services, Retail clothing, and Construction agree with the statement, while 75% of firms in Accounting also believe that the current crisis puts their survival at risk. This reflects the particular economic hardship in these three sectors (Construction, Catering and Retail clothing). Overall, Greece has seen about 230,000 businesses closing from 2007 to 2013, a decline of 27% from the total number of businesses in 2007 and 46% of firms are not able to pay their debts towards banking organizations (Hellenic Chamber of Commerce, 2014). In particular, from 2007 to 2013, new construction permits have declined by 80% and from 337,000 employees in the sector in 2008, the number decreased to only 140,000 in 2013, a 58% loss (European Commission, 2014). Wholesale and retail trade, car and motorcycle repair, real estate and accommodation and food services were among the most hardly hit by the crisis in terms of employment losses (European Commission, 2014).

Table 4-11 The crisis affects the survival of my business

	Strongly disagree	Mostly disagree	Tend to disagree	Tend to agree	Mostly agree	Strongly agree
Accounting	0%	0%	25%	25%	50%	0%
Catering services	0%	0%	0%	0%	75%	25%
Construction	0%	0%	0%	0%	100%	0%
Retail Clothing	0%	0%	0%	0%	67%	33%
All sectors	0%	0%	7%	7%	73%	13%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

4.5 Structural Inefficiencies and other business barriers in Greece

The current economic downturn is perceived as the main barrier to doing business, but structural factors and ill-designed business policies also hamper firms' operations and growth. To help assess business conditions, I asked businessmen to describe the barriers they face in doing business, such as financing, tax system, corruption, and crime rates (Table 4-12). For all sectors, the current economic climate in Greece, access to finance, and the cost of financing itself are major obstacles to business function and growth. In total 88% of the investigated businesses agree that the economic crisis has been the most significant obstacle in their growth, with the total of firms Accounting, Construction and Catering viewing the crisis as a major obstacle. The tax system, bureaucracy, macroeconomic stability and change of regulatory policies are seen by more than 70% of firms in all sectors as a major obstacle in doing business. Corruption, crime, strikes and unfair competition practices are seen more than 60% as a moderate to major obstacle. A total of 94% of firms assess the frequent changes of regulatory policies as a major business barrier. Businesses face significant obstacles during the crisis, with several laws and regulations passed during the economic crisis being extremely unfavourable for the business environment. Although some policy changes had to be taken in response to the crisis, the

increase in VAT, the increased corporate tax rate in addition with the tax pre-payments required per month as opposed per fiscal year, imposed an increased burden on firms. These along with the major difficulties of accessing credit resulted in many firms closing down or being at risk of survival. By contrast typical services required for daily business activity such as telecommunications, electricity, transportation, seem to pose minor to no obstacle in more than 80% of the businesses.

Table 4-12 Assessment of different business barriers

	No obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle
Access to finance	0%	0%	19%	81%
Cost of financing	0%	0%	12%	88%
Telecommunications	86%	14%	0%	0%
Electricity	58%	21%	0%	21%
Transportation	69%	23%	8%	0%
Title or leasing of land	17%	17%	8%	58%
Tax system	0%	12%	12%	76%
Trade regulations	33%	20%	27%	20%
Business licensing	19%	12%	25%	44%
Skills and education of available workers	44%	19%	25%	12%
Frequent change of regulatory policies (changes in tax system, and in business licensing regulations)	0%	0%	6%	94%
Macroeconomic instability (inflation, rates)	0%	0%	25%	75%
Functioning of the judiciary	14%	0%	43%	43%
Corruption	0%	0%	50%	50%
Bureaucracy	0%	0%	19%	81%
Street crime, theft and disorder	0%	40%	27%	33%
Organised crime, violence	42%	17%	8%	33%
Social unrest, strikes, protests	19%	6%	31%	44%
Anticompetitive practices of other competitors in your sector	20%	13%	27%	40%
Contract violations by customers and suppliers	21%	29%	36%	14%
Current economic crisis in Greece	0%	0%	12%	88%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Administrative bureaucracy and the state organisational chart are considered major obstacles in doing business in Greece. During the 1st stage of interviews, many firms mentioned issues with the state organisation and several questions were incorporated in the 2nd stage questionnaire in order to pin down major reform challenges. Table 4-13 distinguishes seven main problems that the state could tackle in order to promote business development and growth. The joint jurisdiction and the lack of cooperation between ministries and government services are viewed by more than 60% of the businesses as a major obstacle. The lack of information for similar enterprises, the intervention of Unions and Professional bodies, and the lack of a business plan prior to start up or the lack of appropriate revisions to the business plan and the business strategy, are considered by more than half of firms in all sectors as either moderate or major impediments in successful business development. Also the large number of laws and regulations dictating the activity boundaries of a business creates complications in doing business and is viewed by 81% of firms as a major obstacle in business operations and development. In particular, this high percentage is mostly derived by the Construction, Retail and Catering sector, in which 100% and 75% of the businesses agree that the large number of laws is prohibitive for their growth (Table 4-14).

In a recent study on OECD countries, including Greece, it was found that the cost of taxation, based on the cost of taxes imposed and the cost of complying with the tax administration, together with the quality of governance, and the regulatory policies are the most important determinants of corruption and shadow economy in these countries (Manolas et al. 2013). Furthermore, a recent study on the level of commodity tax rates underlines the importance not only of the tax rate but of that of tax structure, indicating that specific taxation as opposed to ad valorem taxation are more linked to firms choosing informal activities (Dellipalla 2009). Bitzenis et al. (2015) extend the research on corruption and shadow economy and highlight its negative based on a case study of energy services companies in Greece. Bitzenis

and Vlachos (2015) support that reducing the tax burden and the social security contributions, and improving tax collection first by simplifying tax administration, and second by increasing audits and enforcement controls should be among the first steps towards this direction (Bitzenis and Vlachos 2015).

Table 4-13 State business barriers

	No obstacle	Minor Obstacle	Moderate Obstacle	Major Obstacle
Joint jurisdiction of ministries and government services	7%	13%	20%	60%
Lack of cooperation between ministries and government services	0%	12%	19%	69%
Intervention of Professional Institutes and Unions for collection of benefits or obligatory use of their services	19%	25%	19%	37%
Lack of information on operation of similar enterprises	0%	31%	38%	31%
Lack of business plan prior to business start / no review of business plan after staring operations	20%	7%	20%	53%
Lack of land planning	14%	21%	36%	29%
Number of laws/regulations	0%	0%	19%	81%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Table 4-14 Assessment of state business barriers per sector

	Accounting	Construction	Catering	Retail clothing
		Major Obstacle		
Joint jurisdiction of ministries and government services	25%	100%	67%	50%
Lack of cooperation between ministries and government services	25%	75%	100%	75%
Intervention of Professional Institutes and Unions for collection of benefits or obligatory use of their services	25%	50%	75%	0%
Lack of information on operation of similar enterprises	25%	25%	25%	50%
Lack of business plan prior to business start	25%	33%	50%	100%
Lack of area planning	0%	50%	67%	0%
Number of laws/regulations	50%	100%	75%	100%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Following up on specific questions on the business environment, firm owners and managers were asked to identify further obstacles, specific to their business. These were categorized per sector as shown below:

I. Retail clothing

- Existence of illegal and black market commerce of quality and/or fake goods and general lack of quality control
- Strict operating business hours due to Union restrictions
- Lack of feeling of security due to illegal immigration and crime rates
- Unfair competition policies from multinational companies
- Ambiguity of laws
- Culture of corruption and tax evasion among businesses

- Difficulty in acquiring information or securing financing through banking or EU growth support funding (i.e. ESPA)
- Limited available information on the operation and administration of similar enterprises

II. Catering services

- Local municipality/council decisions may sometimes request unfair demands from businesses, if these don't provide informal payments, and increase their risk of survival
- National insurance contributions from employers are not correlating with the employees' benefits
- Lack of public parking spaces
- High VAT and taxes
- Lack of entrepreneurial spirit and skill set

III. Construction

- Large number of laws, sometimes contradictory, for civil construction (ranging from archaeological permits to balcony closures)
- Joint jurisdiction of ministries and government services
- Insufficient cooperation between government agencies
- Lack of adequate land area planning and increased municipal/state intervention
- Limited e-government services for the construction sector
- Non transparent government contract tenders

IV. Accounting

- Unstable tax system
- Lack of legislative quality and transparency
- Bureaucracy

4.5 E-Government as response to corruption

Most firms use available e-government services (i.e. for submission of tax forms, certificates and legal documents for licenses) and the development of e-services is perceived as a way to reduce corruption and increase transparency. Most businesses are happy to use the current e-services and the majority of respondents, 94%, replied that they are already using some means of the Greek state E-government platforms. At the same time, a cumulative 94% of firms across all sectors agree that E-government is either very important or essential for facilitating business operations (Table 4-15). Specifically, Accounting, Catering services and Construction agree by 100% that E-government is very important to essential since these sectors are the ones that have more ties and liaisons with state agencies.

Table 4-15 How important is E-government for facilitating the operation of your business

	Important	Very important	Essential
Accounting	0%	100%	0%
Catering services	0%	50%	50%
Construction	0%	75%	25%
Retail Clothing	33%	34%	33%
All sectors	6%	67%	27%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

Firms strongly believe in deepening the level of e-government services as a way to reduce corruption. In Table 4-16, all sectors overall agree with the statement, particularly firms in Construction. E-government is expected by the businesses to reduce the level of corruption since it can reduce the level of personal contact with government officials and their discretionary power. Based on the firms' statements in the questionnaire and the discussions, especially the managers and owners of Construction firms stated that currently in Greece and specifically in the Construction sector it is common practice between companies to 'fix' public procurement

competitions, either by arranging a small exit fee to other competitors, or to sequentially win the tenders so that everyone gets at least some business. It is therefore evident how the state could address these issues by introducing more e-government platforms with services ranging to a variety of subjects i.e. tax declaration forms, electronic customs form, on-line public procurement competitions for hospitals, civil works and ministries. For example, electronic platforms for state contracts tenders would enable a much more transparent environment with less legal complications and unnecessary delays.

Table 4-16 E-government acting as solution to corruption

	Tend to agree	Mostly agree	Strongly agree
Accounting	75%	0%	25%
Catering services	25%	50%	25%
Construction	0%	75%	25%
Retail Clothing	33%	67%	0%
All sectors	33%	47%	20%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14.

4.6 Analysis of the open-ended questions

The final three questions of the questionnaire allow the interviewee to present his/hers ideas on: a) why each sector is more prone to corruption, b) which are the ways to improve transparency and reduce corruption and c) which are the main measures that should be taken to grow one's business.

In the first question, on why each sector is more prone to corruption, the Retail clothing industry mention the anti-competitive practices of other firms and the preferential treatment that these firms receive from public officials. They also mention the illegal trade of fake goods in cheap prices, while public officials turn a blind eye. Apart from corruption, some of the

businesses in retail industry cited problems with the education of the workforce, stating that there is a shortage of employees with the necessary professional and technical qualifications. Businesses in retail also cite issues with the work ethic of some of their employees. They mentioned that trust was often violated by their staff and that the recruitment of properly educated, experienced as well as responsible employees posed significant challenges. Some of the issues that were discussed were the lack of responsibility lack of interest in the company, and a lack of timely dealing with their daily obligations. The frequent turnover of the staff, and the inability to find employees that would commit to the job in the long-term was vastly to blame for the weak work ethic, and the indifference exhibited on the overall product and the quality of service offered. Possibly the lack of career progression that is also a consequence of the current economic crisis, and the fact that these jobs in Greece are vastly seen as interim jobs also contribute to the decreased staff motivation exhibited in these firms. It is interesting to note that even though the interviews were taken in the capital of Athens, the respondents mentioned problems with the skills of the available workforce. Consequently it could be inferred that these problems would be aggravated in the smaller cities or rural areas of Greece.

The Accounting sector reported being particularly affected by corruption due to its exposure to bureaucracy and its strong relationship with the Inland Revenue agency. Despite the recent implementation of E-Tax submission and payment services having reduced the amount of corruption and face-to-face transactions with state officials, the respondents state that bureaucracy still strongly influences the accounting sector since every accounting office needs to continuously monitor the recent changes in the tax system and implement them with accuracy.

Catering services interviewees suggest that business certificates needed from many state agencies and organizations made the sector more prone to corruption. In order to open a catering service (i.e. restaurant) the certificates needed span from the local Fire Department for fire safety approvals, to the Hygiene/Sanitation Agency and the National Insurance Trust. On top

of that, bi-annual inspections by local authorities of these agencies (not coordinated to happen at the same time) leave room for non-transparent procedures, which may explain why catering services have responded that unofficial payments occur frequently.

Finally, the Construction businesses and especially the companies that are involved in public work tenders, suggest that the sector is highly prone to corruption. Due to the nature of the state contracts and the strict legislation this sector has to liaise with almost all the state agencies. Even in cases when the client is of private nature, a similar number of agencies will be involved i.e. Civil Area planning, local area Housing Contract Agency, Fire Department, Health and Safety agency, National Insurance Trust, local Tax office, etc. Increasing the number of state stakeholders results in increased levels of corruption, which is what all the investigated construction businesses suggested. Establishing a unique procedure for land planning permits and licenses, possibly through e-services and a one-stop shop would reduce the number of agencies involved and help lower the opportunities for corruption (see below).

The answers of businessmen to the second question on the ways to improve public sector transparency were relatively homogenous. All sectors produced similar answers that are summarised below:

- Increased usage and implementation more of E-government services
- Better legislation with fewer and easier to comprehend laws
- Reduced state interventions
- Frequent but random inspections with coordinated state bodies
- More strict penalties to illegal activities

The final question on the measures that should be taken by the Government to foster business growth revealed some heterogeneity across sectors. Some general comments and suggestions were applicable to the generic business environment in Greece, but many comments were sector specific. The main generic comments were:

- **Clear, simple and stable tax system** *(by far the most common comment)*
- Reasonable VAT and tax rates for businesses and individuals
- Clear, and simple legislation for on-going businesses and start-up's
- Reduction of tax evasion
- Reduction of unemployment
- Better education
- Transparent procedures and information on how to enroll to EU support funding (ESPA)
- Exit from the economic crisis and kick start of the economy (i.e. positive growth rates)

The per-sector comments can be seen below:

I. Accounting

- Upgrading the role of the sector and reduction of state intervention
- Reduce the state agencies which are responsible for business financial issues

II. Catering service

- Improvement of households' confidence
- Stopping the politically affiliated Press & Media from terrorizing and manipulative strategies
- National insurance contributions reflecting true pension benefits

III. Construction

- Employ only chartered construction engineers
- On time and problem free funding of public works
- Introduction of E-bidding for state funded works/tenders
- Promote fair competition and support SME's

IV. Retail clothing

- Strict penalties and correct law enforcement for black market activities
- Pure competition and monitoring of competition practices

The syndicates and the favour for favour mentality, as well as a client-based political actors, according to some respondents covered and promoted corruption, non-transparency and many times illegal acts. According to the questionnaire answers, adaptation to new government and EU programs, which unfortunately are limited and are not adequately promoted to SMEs, would lead some businesses to develop, and promote positive growth rates. However, this measure due to bureaucracy and lack of proper information (as suggested by the respondents) has been implemented partially and recently the Greek government has gained one more year of extension to absorb the EU support funding until the end of 2016. By December 2014 almost 88% of the funds (about 19.5 billion Euros) have been absorbed for the EU program spanning between 2007 and 2013. However, the absorption level has dramatically increased only over the last two years since in January 2013 the absorption level was about 41% at 1.6 billion Euros (ESPA, 2014).

The importance of cultural norms was also emphasized in the interviews and particularly in the discussion with a foreign businessman in Catering services that mentioned the problems in dealing with public services with a lack of good knowledge of the Greek language, and cultural norms. The businessman described as the dealing with public officials quite lengthy and time consuming, and that there were many difficulties for the establishment to start operations and acquire its licenses. The demands for the business to acquire the license to start operation seemed inconsistent and resulted in major delays. In many cases the establishment of important business relationships was quite difficult, lacking the necessary language skills and culture.

4.7 Conclusions and limitations of the study

This study overall present the results of in-depth interviews in Greece over 2013-14 to gain an understanding of the business barriers that specific sectors in Accounting, Construction, Catering, and Retail clothing are facing. Firms' answers reveal a system for doing business that

seems to be overall inconsistent, uncertain, time consuming and in some cases corrupt. The complicated regulatory system creates opportunities for public officials to use their discretionary power to fault business and extract rents. Bribery still seems to be a response to bureaucratic obstacles, however there is a recognition that this is a practice that needs to be changed. Most firms mentioned that before the crisis corruption had decreased but that the negative economic climate challenges the survival of firms and maintains or increases corruption, undeclared employment and profit.

Both old and young businessmen condemned corrupt activities, even if they engaged in them, allegedly to maintain their survival and deal with anti-competitive practices of other firms in their sector. The older businessmen blame the weak institutions and increased discretionary power of public officials for engaging in bribing as a mean to sustain their business and not face any added unlawful burdens from public officials or in order to maintain enough profit in the current climate for their firm to survive. By contrast the younger businessmen in the sample were completely negative of engaging in any corrupt activity with public officials and partly blamed the older businessmen for the fact that some public officials continue to demand bribes from businesses. As corruption and bribing needs two parts to take place, it seems that the younger generation can provide a firmer stance towards corruption and bring about necessary changes in the way business is conducted in Greece.

The study has some limitations because of the number of firms in the sample, and the observations were restricted in location, all taken from the capital of Athens. Other regions in Greece may in some cases experience different business barriers and behaviours of public officials, and some of the barriers could be aggravated, as sometimes access to information or resources may be limited. In addition to the sample restrictions, the questionnaire itself may not always provide the most honest answers, as there could be some possible withholding of information on corrupt activities. However, as the interviews were conducted in depth, and in

two stages, some of the respondents actually admitted openly some level of non-compliance with regulations, while others expressed very strong views against the state system and corrupt practices, I would expect that this bias would be limited.

CHAPTER 5

5. Institutional Constraints, Corruption and Firm Development

5.1 Introduction

Corruption is one of the major impediments on long-term economic growth. The impact of corruption on economic performance is a key issue in development economics, central to the design and implementation of public policies. A large recent literature investigates the determinants of corruption, and its effect on entrepreneurship (Banerjee, Hanna, and Mullainathan 2012; Campos, Dimova, and Ahmad 2010; Rose-Ackerman 2013; Soreide 2014). Corruption may deter entrepreneurial activity, private investment, tax revenues, waist resources, and obstruct the implementation of necessary regulations. The World Bank estimates that 1 trillion USD, around 3.3% World GDP, is spent on bribes every year (World Bank, 2004). However, most of the existing empirical evidence on the effect of corruption on economic performance is based on cross-country studies. This empirical strategy provides incomplete evidence of the driving mechanisms behind the impact of corruption on economic performance. Indeed, corruption hampers growth through a variety of channels and it may have important efficiency costs for the economy, additional to the amount of bribes paid to public officials. Therefore, the effect of corruption on firm performance, and the associated underlying mechanisms, need to be assessed when designing anticorruption and development policies (Olken and Pande, 2011, Sequeira, 2012).

This chapter highlights the linkages between corruption and institutional quality. While a plethora of studies have contributed effectively to the existing knowledge and understanding of the phenomenon of corruption and its determinants, the links between the institutional environment, and the interdependence between institutional factors remains largely unexamined. Institutional progress, in terms of regulatory stability, the development of a

competitive business environment without barriers to entry, macro-stability, access to finance, simple and efficient framework for registering and operating a business, an effective tax system and tax administration, and the quality of the judicial system can have a strong positive impact on the success of any anti-corruption reform policy and the actual reduction of corruption levels. More specifically, although corruption has been proved to harm the business environment and specific types of firms more than others, the level of corruption and the degree it constitutes an obstacle to business development for various firms depends on the institutions and the legal framework in each country, regarding the establishment and operation of firms and their overall business development.

I create a business development model, based on the institutional factors that affect the impact of corruption on business performance. I examine the effect of corruption on business growth and unveil the interaction between economy and politics, firms and institutions, through the prism of International Political Economy. Furthermore, I conduct additional analysis for young and fast-growing firms that have been shown to constitute an important engine of economic growth. I then use this model to explain the differences on the levels of corruption and its impact on business between countries. The evaluation of the degree of business barriers caused by corruption also allows identifying a set of institutions to tackle corruption issues and improve the institutional framework for the creation, effective operation and growth of businesses.

The institutional framework may reduce corruption through two main channels: (i) clear and simple regulatory framework, (ii) well-functioning property rights and contract institutions. Progress in the first cluster of institutions could lead to higher transparency and lower corruption by reducing the costs of information. For example a clear and efficient framework for the operation and registration of business is vital for business development. Effective tax administration, finance institutions, and clear, non-contradictory legislation are also

particularly important in the road to transparency. Property rights and contract institutions are the second channel though which the institutional setting can affect the corruption levels. The scope for bribery is lower when the quality of the judicial system is high, as deviation from agreed contracts is more costly. A well-functioning judicial system also decreases the costs of contract enforcement by facilitating firms, households, and civil servants monitoring. Therefore, I expect that the development of some institutions, such as effective tax administration, proper property rights, and an effective judicial system, will play a substantial role in the global anti-corruption effort.

I use the Business Environment and Enterprise Performance Survey (BEEPS), which as discussed earlier is a large survey of firm managers in transition countries, conducted by the EBRD and the World Bank to develop my business model. The institutional set-ups differ significantly across the countries of my study. Therefore I can determine the channels through which other institutions can affect the severity of the drag of corruption on business operations, as experienced by business managers. I examine the relationship between the constraint of corruption as reported by managers, the frequency of corruption and other institutional constraints, and their interaction. This strategy allows distinguishing the effect of other institutions on corruption, and it determines the mechanisms through which exposure to a low institutional environment can impose further barriers on doing business.

This chapter makes three important contributions. First, the chapter analyses the high levels of corruption and the interconnectedness of institutions by applying an in depth analysis of the progress of different institutional indicators to provide some insights on a possible business development framework. The study investigates different aspects of the business environment and conducts Principal Components Analysis and Multivariate linear response surface analysis on the institutional factors that explain the variation in the overall constraints faced by the firms in this study.

Second, I form the base of a business development model that estimates how the constraint of corruption depends on the overall quality of the business environment and on specific institutions. In recent years, the reform agenda in transition countries as well as countries of South Europe remains a challenge. Economic and institutional reforms seem to have lagged behind, and firms in the main regions of study still experience a significant constraint from corruption. By controlling for country and sector fixed effects I estimate more precisely the effect of corruption. I find a strong association between the perception of corruption as a business barrier and managers' evaluations of judiciary, business permits, anti-competition, and tax administration as a barrier in doing business. These relationships, display a sizable effect of other institutions on corruption, and firm development.

Finally, I investigate in more detail the institutional factors that can drive the effect of corruption on a specific type of firms that constitutes the engine of growth, young and fast-growing enterprises (OECD 2007). The focus is placed on three important aspects; the institutional barriers faced by the young and fast growing enterprises, the relationship between the barrier of corruption and other institutional constraints experienced by these firms, and the impact of corruption on their performance, using various performance indicators. The study is particularly important to build a business development framework that will provide a set of institutions that are helpful for young fast growing firms and long-term growth. My estimates show that sound property rights and an effective court system are essential to reduce the negative impact of corruption on the private sector.

The chapter is organized as follows. Section 5.2 discusses the data, measures of corruption and preliminary evidence of the presence of corruption in the regions of study. Section 5.3 describes the empirical strategies. Section 5.4 presents the results of Principal Component Analysis and Multivariate linear response surface analysis. Section 5.5 describes the effect of institutions on the perception of corruption as barrier to doing business. Section 5.6

investigates the institutional factors responsible for the effect of corruption in doing business for young and fast-growing enterprises. Section 5.7 concludes on the framework for a business development model to address the constraint of corruption at the firm level.

5.2 Data and preliminary evidence

This chapter is again based on the EBRD-World Bank Business Environment and Enterprise Performance Survey (BEEPS). The BEEPS survey examines the quality of the business environment, determined by several questions on the interaction between the private and the public sector. It provides an assessment of corruption, from firm managers. The survey is conducted on the countries of Eastern Europe and Central Asia and on a set of comparator countries of Western Europe and East Asia in 2004 and 2005. For 2005 two rounds of the BEEPS survey are used, one round including the transition countries and one round conducted in the group of comparator countries. For 2005 two rounds of the BEEPS survey are used, one round including the transition countries and one round conducted in the group of comparator countries. The analysis is based on South Europe, Eastern Europe, and Central Asia. I further separate the countries of Eastern Europe, and Central Asia in smaller regional groups based on the geographical location, South Europe, that includes Greece, Portugal and Spain, South-Eastern Europe, Central Europe and the Baltics, Eastern Europe and the Caucasus, and also include separately, Russia, Turkey and Germany as other comparator countries[24].

[24] South Europe includes: Greece, Portugal, and Spain. South-Eastern Europe includes: Romania, FYROM, Albania, Bulgaria, Serbia and Montenegro, and Bosnia-Herzegovina. Central Europe and the Baltics include: Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic and Slovenia. Eastern Europe and the Caucasus include: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. Central Asia includes: Kazakhstan, Kyrgyz Republic, Tajikistan, Mongolia, Turkmenistan, and Uzbekistan.

5.2.1 Measures of corruption in the institutional environment

To assess the magnitude of corruption the chapter uses the measure of the frequency of corruption, as the frequency of the unofficial payments and gifts that firms pay to "get things done" with regards to licenses, customs, taxes, services, and regulations (please see Chapter 2, Section 2.3.2 for a detailed description of measures).

An additional measure to evaluate the magnitude of corruption is the percentage of total annual sales that a firm like the one represented by the respondent, would typically pay in unofficial payments and gifts to public officials (please see Chapter 2, Section 2.3.2 for a detailed description of measures).

The severity of corruption is examined based on its assessment as an operational and growth barrier for doing business. Managers in the BEEPS survey are asked if corruption constitutes an obstacle for the current operations of their business. This measure of corruption severity can display the effect of corruption and regulatory capture in doing business, but they could also reflect managers' perceptions (please see Chapter 2, Section 2.3.2 for a detailed description of measures).

5.2.2 Preliminary Evidence

Russia and Central Asia report the most frequent unofficial payments, followed by South-Eastern Europe, and Eastern Europe and the Caucasus (Figure 5.1). The frequency of corruption appears less aggravated in Central Europe and the Baltics, whereas in Germany, Turkey, and South Europe it appears the lowest. Even though the measures of corruption frequency and perception of corruption as a business barrier are positively correlated, it is evident that some firms in some countries may experience corruption as an important barrier in doing business even if there is relatively lower frequency of corruption compared to other

countries. However, we need to note that the frequency of corruption may not depict the actual size or severity of corruption.

Corruption appears a barrier in doing business in all countries of the study (Figure 5.2). It constitutes a stronger barrier in doing business in South-Eastern Europe, followed by Russia, Eastern Europe and Caucasus, and Turkey. Central Europe and Central Asia also report corruption as an important barrier in doing business. Managers in Germany, followed by South Europe, all members of the European Union and the Eurozone, report corruption as a lower barrier in doing business.

The countries of Central Europe have generally developed more successfully than the countries of South-Eastern Europe, whereas the economic performance of the other Commonwealth of Independent States (CIS) has generally lagged behind. At the same time countries of South Europe, Greece, Portugal and Spain face important challenges for structural reforms that became apparent with the severe deterioration of the economic climate. In order to enable the processes required for sustainable growth, effective institutional reform is crucial. The different levels of progress and economic reforms across these countries raise attention to the role of the institutional environment as a determinant factor for the economic success. Institutions can support effective changes in the real economy and contribute to economic growth; however in these countries corruption has been a persistent institutional problem holding back necessary reforms and hindering economic and political developments.

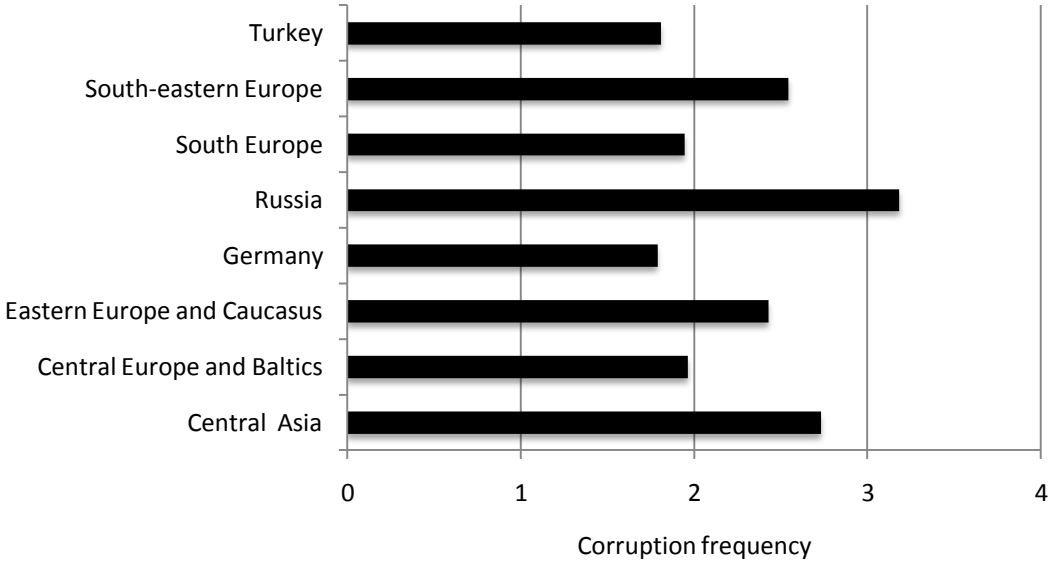

Figure 5-1 Evaluation of the Frequency of Corruption in the regions of study

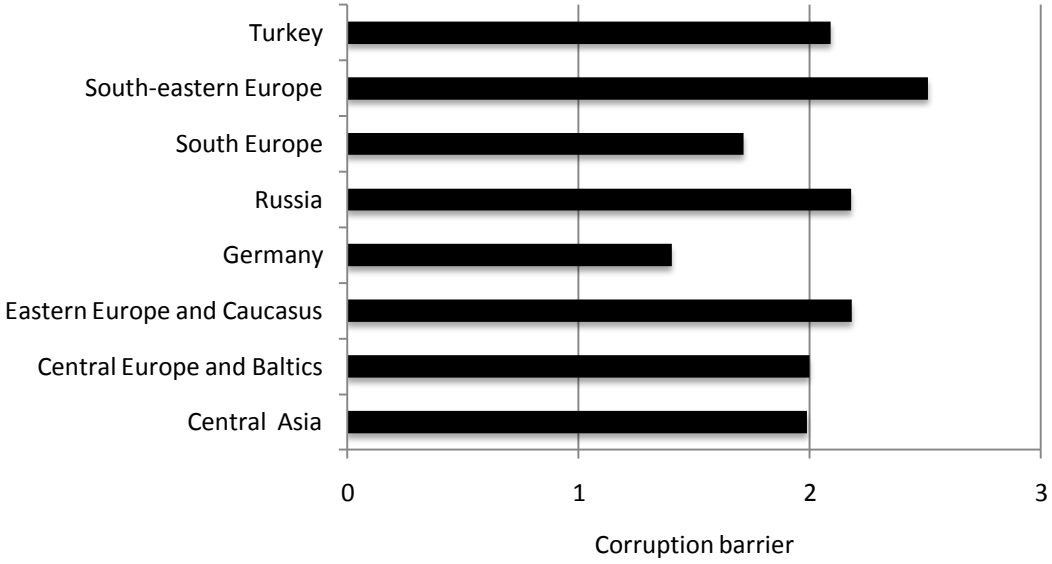

Figure 5-2 Evaluation of Corruption as a barrier to doing business in the regions of study

Note: Average answer to the impact of corruption on doing business, from 1 (corruption is not an obstacle) to 4 (corruption is an important obstacle). Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

5.3 Empirical Strategies

Some institutional constraints are more important than others and present a significant obstacle in the sustainable development of businesses. Indeed, the results of the new qualitative survey of Greek firms over 2013-2014 and the summarized work presented in Chapter 4, some factors have a particular influence on entrepreneurship and the business environment. A brief summary of these constraints for Greek firms is shown in Table 5.1 below. As expected due to the large-scale economic crisis in Greece and other countries, the access to finance and cost of finance currently present a major obstacle to business development. However, other constraints cannot be solely attributed to the crisis and would need to be addressed with specific reform programs as they tend to be related with more long-term social, economic, and political characteristics.

Table 5-1 Questionnaire most significant institutional barriers in Greek Firms

	Moderate Obstacle	Major Obstacle
Access to finance	19%	81%
Cost of financing	12%	88%
Tax system	12%	76%
Business licensing	25%	44%
Macroeconomic instability	25%	75%
Functioning of the judiciary	43%	43%
Bureaucracy	19%	81%
Anticompetitive practices	27%	40%

Source: Author's qualitative survey of sixteen firms of four economic sectors in Athens over 2013-14 (see chapter 4).

The analysis that follows attempts to evaluate the severity of the above business barriers in a more comprehensive and quantitative way. I expect the different business barriers presented in Table 5.1 to be correlated with a range of variables, which would benefit or hinder the development of an enterprise. In turn, the development of an enterprise would be correlated with the three corruption indices (the perception of corruption as a business barrier, corruption frequency and bribes as percentage of total annual sales). The modeling scheme can be seen in Table 5.2.

Table 5-2 Variables used for econometric modeling

Dependent Variable	Independent Variable (Perception of institution as a business barrier)
• Perception of corruption as a business barrier • Corruption Frequency • Corruption (% sales)	• Access to Finance • Cost of Finance • Tax Rates • Tax administration • Business permits • Macroeconomic instability • Judiciary function • Anti-competition practices • Regulatory instability

Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

The empirical analysis is separated into three parts. The first part involves principal component analysis (PCA) and multivariate linear regression in order to identify the drivers of the different measures of corruption. Principal component analysis (PCA) is a statistical methodology used to emphasize variation and point out strong patterns in a dataset. The transformation is defined in such a way that the first principal component has the largest possible variance. The main usage of PCA is the ability that gives to the user to reduce the dataset size by grouping together or dropping independent variables, which show the same trends or show very little variation respectively to each other.

The second part of the empirical analysis includes regression analysis of the corruption dependent variables versus the institutional barriers both with and without interaction terms i.e. institutional barrier times corruption frequency, and also taking into account country and sector specific fixed effects controls. The econometric model that is employed is:

$$y_i = \gamma C_{rci} + X_i\beta + \delta C_i * x_i + \alpha_c + \alpha_s + \varepsilon_{isrc} \quad (1)$$

where *i* is an index for manufacturing plants, *s* is an index for different manufacturing industries, and *c* is an index for countries. y_{isc} is the corruption constraint as evaluated by business managers. C_{rc} is the measure of frequency of corruption, X_i are the measures of other institutional constraints, e.g. barrier of access to finance by an establishment, and $C_i * x_i$ is the interaction term between frequency of corruption and other institutional constraints. α_c and α_s are country and sector fixed effects that control for industry and country specific characteristics, such as rule of law and overall institutional quality. These fixed effects also control for the level of competition in a manufacturing industry at the national level. In all specifications, the standard errors are clustered at the industry- country level. Such strategy has been recently used by (Wren-Lewis 2015) to investigate the interactions between corruption and governance quality for electricity supply companies in Latin America.

Finally, I investigate the effect of institutional barriers to 'young and fast growing' enterprises, which can boost economic development, as important drivers of growth, employment, and innovation. I define young firms as those created after 1995, and fast growing firms, the firms with the top 2/3rd fastest growth of their industry.

5.4 Empirical Findings for the Principal Component Analysis

Corruption and other institutional constraints are interconnected. I use a principal component analysis to untangle the relationships between the different variables. The overall descriptive statistics and correlation matrix for the nine institutional barriers reported in Table 5.2 can be seen in Tables 5.3 and 5.4. All barriers have a positive correlation factor between them, with cost of finance and access to finance strongly related (as also shown in the previous PCA section), as well as tax administration and tax rates, and macro-instability with regulatory instability, and corruption and judicial system.

Table 5-3 Summary statistics for the investigated 2005 BEEPS variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Corruption (% of annual sales)	11,306	0.86	2.20	0	50
Corruption frequency	11,135	2.24	1.43	1	6
Perception of different institutions as a business barrier					
Corruption	11,802	2.02	1.13	1	4
Access to finance	11,995	2.22	1.13	1	4
Cost of finance	12,056	2.44	1.14	1	4
Tax rates	12,305	2.70	1.11	1	4
Tax admin	12,241	2.44	1.13	1	4
Business permits	12,107	1.95	1.03	1	4
Macro instability	12,158	2.44	1.14	1	4
Judiciary	11,744	1.95	1.08	1	4
Anti-competition	12,068	2.24	1.13	1	4
Regulatory instability	12,140	2.37	1.14	1	4

Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

I first analyse the relationships between the 3 dependent variables of Table 5.2: the perception of corruption as a barrier to doing business, the experience of the frequency of corruption during contacts with public officials, and the self-reported share of sales paid as bribes. Prior to the PCA, all the questionnaire responses were normalized (divided by their standard deviation).

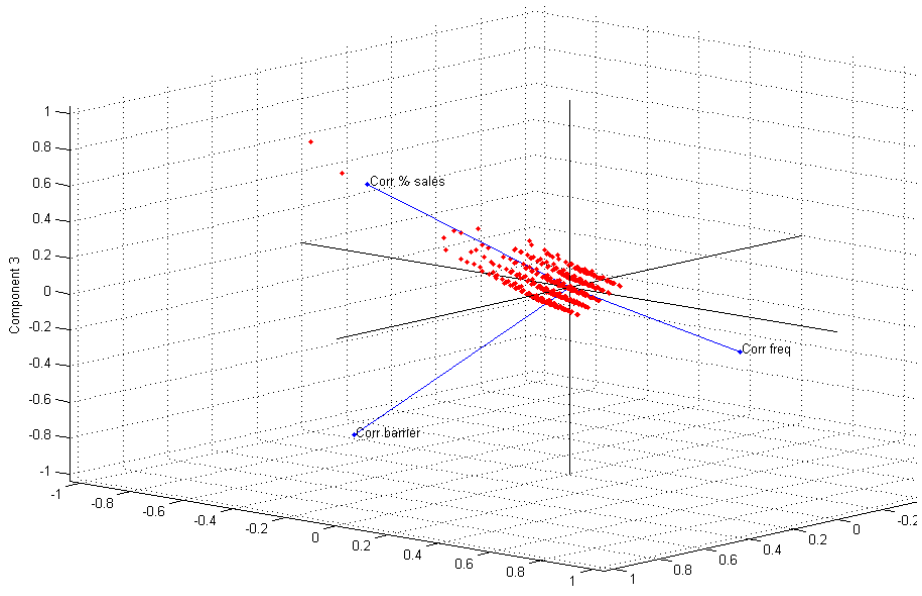

Figure 5-3 Principal component analysis for corruption measures

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

There is much higher variation towards the corruption term (as percentage of annual sales paid in bribes) while the scatter in the other two corruption measures are comparable (Figure 5.3). A brief overview of the BEEPS data indeed revealed that some firms in the investigated countries reported up to 50% of the year's sales revenue went to bribes. These values however are considered as outliers since the average bribe payments of the corruption made as percentage of annual sales is 0.86%, and only fourteen (14) firms reported higher values than 10%.

Table 5-4 Correlation matrix between the perceptions of different institutions as a barrier to doing business

	Perception of different institutions as a business barrier								
	Corruption	Access to finance	Cost of finance	Tax rates	Tax admin	Business permits	Macro-instability	Judiciary	Anti-competition
Corruption	1								
Access to finance	0.2764	1							
Cost of finance	0.3087	**0.6844**	1						
Tax rates	0.3206	0.3469	0.4431	1					
Tax admin	0.3842	0.3325	0.3765	**0.6598**	1				
Business permits	0.3918	0.2873	0.2914	0.326	0.4089	1			
Macro-instability	0.4211	0.2987	0.3543	0.3894	0.3635	0.3198	1		
Judiciary	**0.629**	0.2752	0.3074	0.3056	0.3518	0.3876	0.4707	1	
Anti-competition	0.4402	0.2422	0.2775	0.3157	0.2608	0.2985	0.4004	0.3865	1
Regulatory instability	0.4443	0.2939	0.348	0.3844	0.3623	0.3291	**0.6354**	0.4928	0.3747

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

Corruption and unofficial payments harm businesses and their performance, thus their ability to effectively grow and invest part of their revenue to R&D, and expansion strategies. Figure 5.4 shows the regression between a firm's natural logarithm of annual sales in thousands of USD ($), which includes both new and old firms, versus the corruption measure of bribes as percentage of annual sales. The graph also reveals another significant aspect of corruption, that the highest bribe payments are seen in firms with annual sales between $20k and $1m. In the countries investigated, it is exactly those types of small firms that account for the higher percentage of employees (within the country) and GDP contribution, so effectively the backbones of the economy.

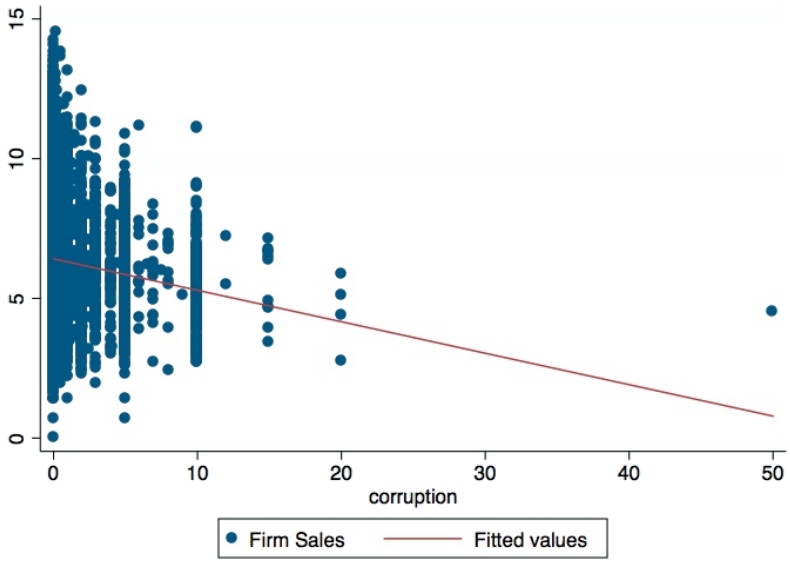

Figure 5-4 Log of annual sales versus corruption (bribes paid as percentage of total annual sales)

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

The analysis of the nine different institutional barriers, the nine independent variables of Table 5.2, reveals a high degree of interdependence between the institutional barriers reported by managers in transition countries. Following a Principal Components Analysis, 60% of the total variance of

the institutional variables is explained by the first three components (Figure 5.5). In particular the first component accounts for about 42% of the variance, thus further analysis and statistical regression would be necessary using the most significant barriers as shown in Figure 5.6.

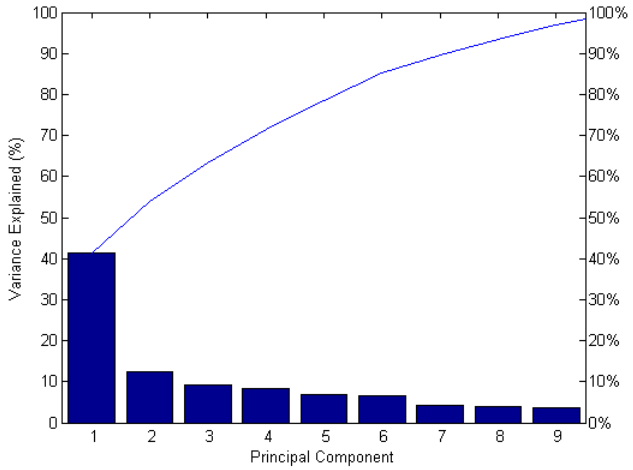

Figure 5-5 Principal components analysis variation for all business barriers

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

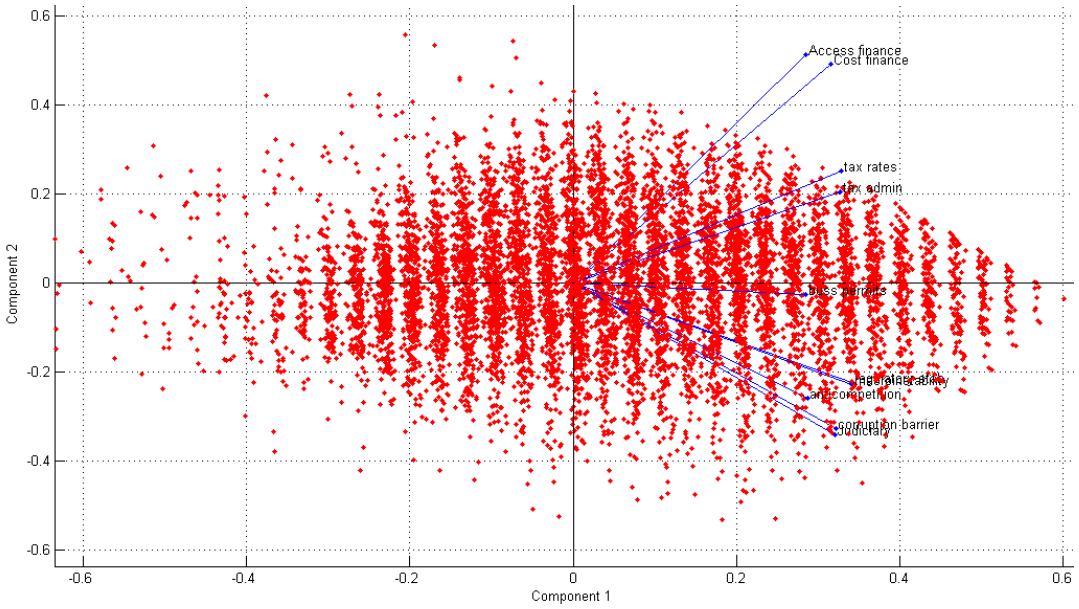

Figure 5-6 PCA biplot for business barriers showing component 1 & 2

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

Some barriers can be clustered together while others are strong drivers of specific variation (Figures 5.6, 5.7 and 5.8). The access and cost of finance barriers can be grouped together as well as the tax rate and tax administration barriers. Similarly the judiciary, the perception of corruption as a business barrier, the macro-instability, the anti-competition and the regulatory instability barrier show the same categorization and also similar axis angle towards which most of the variance is observed. Finally the new business permits barrier is between component one and component three, and shows that it will also influence the regression analysis as an individual business barrier.

The principal component analysis can be viewed in a two-dimensional (2D) space at the observed biplots (Figures 5.6, 5.7 and 5.8). Overall, the PCA provides a new perspective into the analysis because it can infer which variables should be evaluated further and which could be dropped. In the current analysis, although some institutional business barriers can be grouped together, the study will perform regression analysis to all of them against the perception of corruption as a business barrier in order to evaluate individually which institutional term would be more significant.

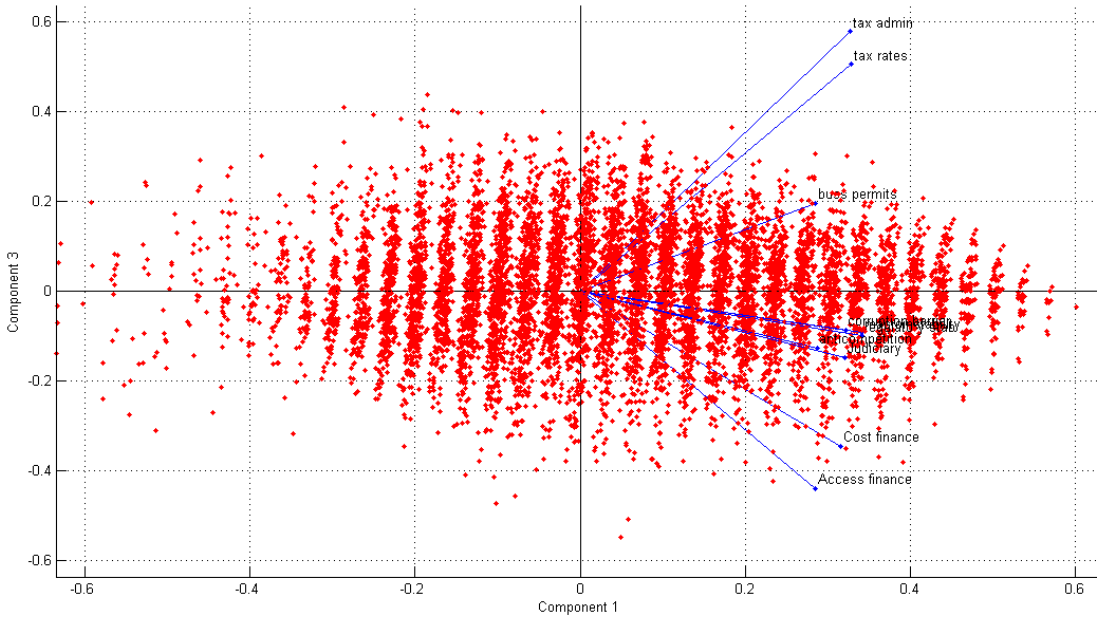

Figure 5-7 PCA biplot for business barriers showing component 1 & 3

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

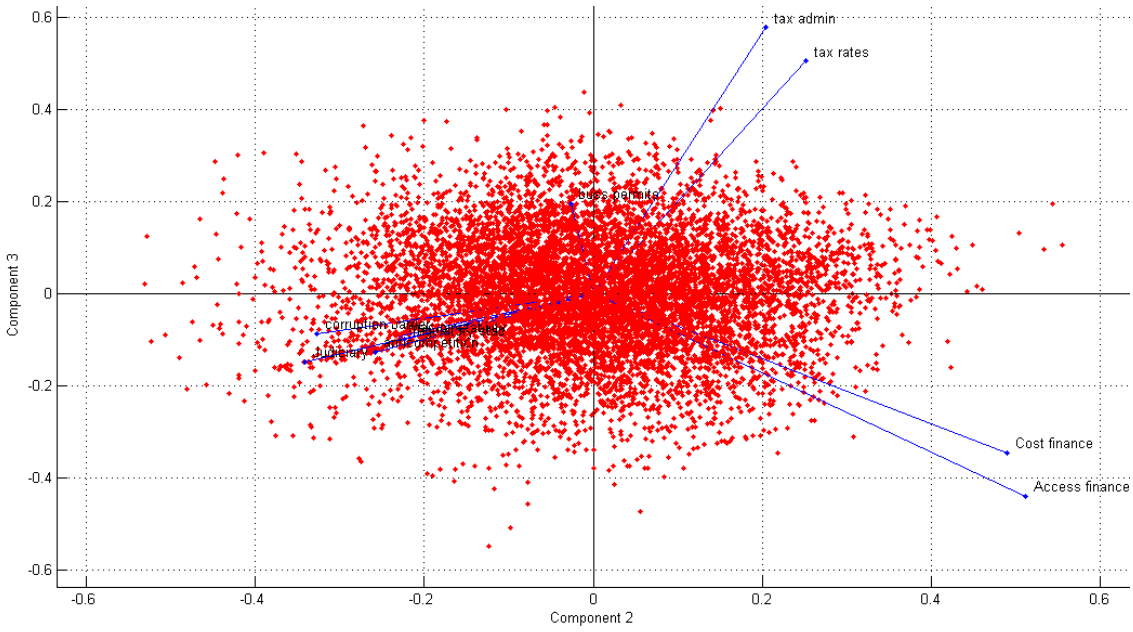

Figure 5-8 PCA biplot for business barriers showing component 2 & 3

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

5.4.1 Multivariate linear response surface analysis

Using the eight institutional barriers as independent variables and the corruption frequency and perception of corruption as a business barrier as the dependent variables, a linear response surface was calculated. The responses of the individual components can be seen in Figure 5.9. Despite the fact that some components have very low or zero gradients and effectively would not affect the regression outcome they were still included in the analysis and not dropped as variables. The x-axis shows the magnitude of the regression coefficients of corruption frequency and corruption barrier on all other business barriers.

The barriers of anti-competition practices, business permits, judicial quality, and tax administration have more significant effects and for that matter positive effects on corruption as a general barrier and corruption frequency. On Figure 5.10 I regress the frequency of corruption on all other business barriers, and on Figure 5.11 I regress corruption barrier on all other business barriers. The 95% confidence regression coefficients can be seen on the x-axis in Figures 5.10 and 5.11 for corruption frequency and perception of corruption as a business barrier respectively.

A corrupt environment deprives firms from equal market opportunities and increases the cost of doing business. This can create obstacles in the market entry of firms. Corrupt judicial systems also obstruct the ability of firms to enforce contracts and business opportunities are reduced. Business corruption decreases competition and efficiency and develops a “rent-seeking” environment. The demand of bribes by public officials for the acquisition of licenses and permits reduces the amount of firms that can enter the market (Sullivan and Shkolnikov, 2004). Thus, corruption may lead to a deterioration of the business environment: as some firms lack sufficient resources to bribe government employees, or are unwilling to do so, their access to services is reduced or deteriorated.

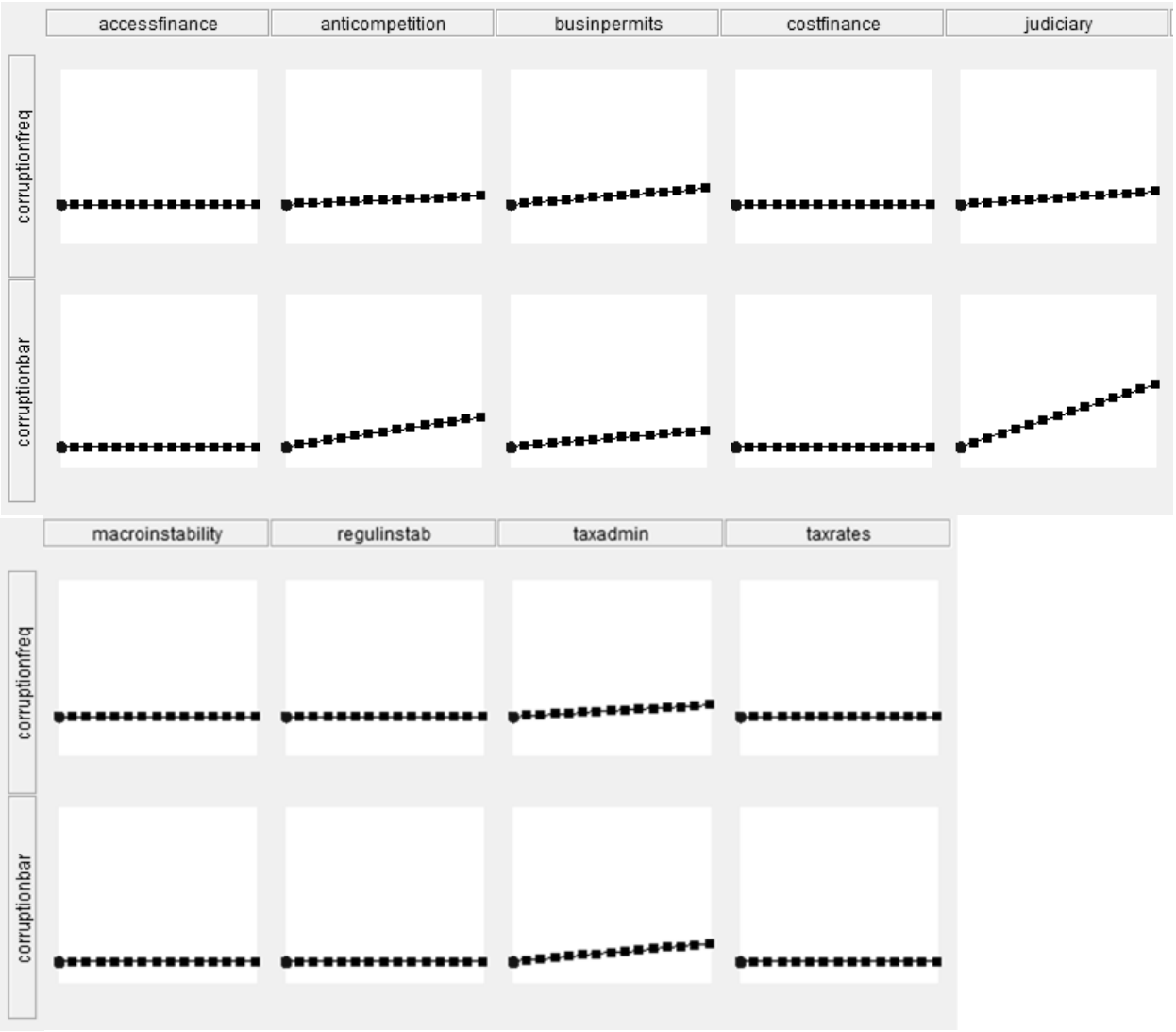

Figure 5-9 Linear response surface regressions for perception of corruption as a business barrier and corruption frequency versus eight other business barriers

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

Corruption and the quality of the judicial system appear highly correlated and interlinked. In more corrupt countries, the court system may be less fair and impartial and able to enforce its decisions. A low quality in the judiciary or corruption in courts is associated with corruption and the rule of law as contracts may not be enforced and rights not properly protected at courts, agents may not abide by the rules, and there may be low trust and low quality of contract enforcement. Corruption may provide

opportunities for private firms to deviate from the specified contractual terms. Some industries depend heavily on specific contracts, and their enforcement by regional institutions, in which case managers have to exert more effort and resources to deal with the requirements of a corrupt public sector.

Corruption is also related to the ease of acquiring business licenses. Firms often engage in illegal practices and bribes to ensure their operation at first (e.g. the operation licenses), and then their expansion. This thesis has also found that in the countries of the study, and in particular in some industries, as construction, bribes may be frequently offered to acquire business permits and licenses.

Corruption appears closely linked to anti-competitive practices. One of the negative effects of corruption may be the decrease of competition. The number of competitors decreases in industries where some firms are actively seeking to influence laws and regulations affecting their business, through bribery and other gifts to public officials. A corrupt environment and an unlawful favour-for-favours relationship between the state and some firms, deters competition, obstructs restructuring and creates inefficiencies that prevent development of the private sector and of the healthy business and competition environment. Inefficient firms with poor corporate governance may remain in business and obstruct the entry, survival or the expansion of new firms.

A business environment with competitive characteristics is particularly important. As some firms extract rents from the government, and influence regulations for their advantage, competition is distorted, resources are misallocated and other firms in the market can suffer a negative impact on their business. These firms could be influencing the regulatory environment and divert government resources in their favour. The entrance of new firms can prevent monopolies and the concentration of power in the hands of oligarchs and subsequently prevent regulatory capture. The arrival of new firms can act as a safeguard of the different actors in a sector, increase openness of information and more transparent

practices. A small number of firms within a sector, may lead to rent-seeking practices and prevent effective and necessary reforms. In turn, the arrivals of new entrants can pose pressure for improvements in efficiency and innovation from existing firms and push inefficient firms towards exit. New companies may prompt existing firms to increase their productive efficiency by improving their production process by new investments or by learning from the new entrants. Firms entering the market may also increase the allocative efficiency across firms. New companies can replace low productivity enterprises and increase the average productivity.

I carried out a multivariate linear regression including interaction terms between the corruption frequency and the investigated institutional barriers. The perception of corruption as a business barrier is the dependent variable, while the frequency of corruption is included as a multiplying interaction term to depict the corruption environment (Figure 5.12). Judiciary performance is the main driver of the perception of corruption as a business barrier, followed by anti-competition, tax administration, business permits and regulatory instability. Tax administration seems to be highly positively correlated with the perception of corruption as a business barrier.

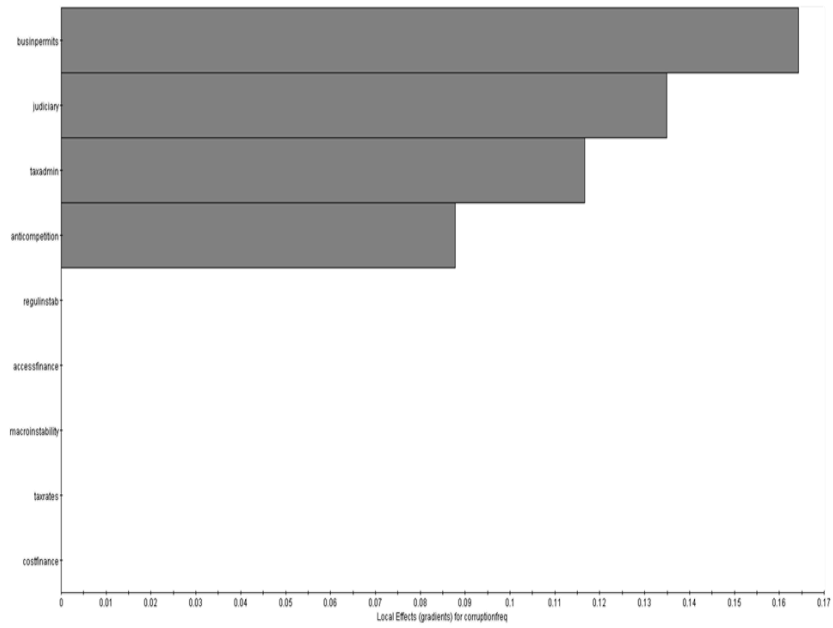

Figure 5-10 Most significant (95% confidence) business barriers on reported frequency of corruption when interacting with public officials

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

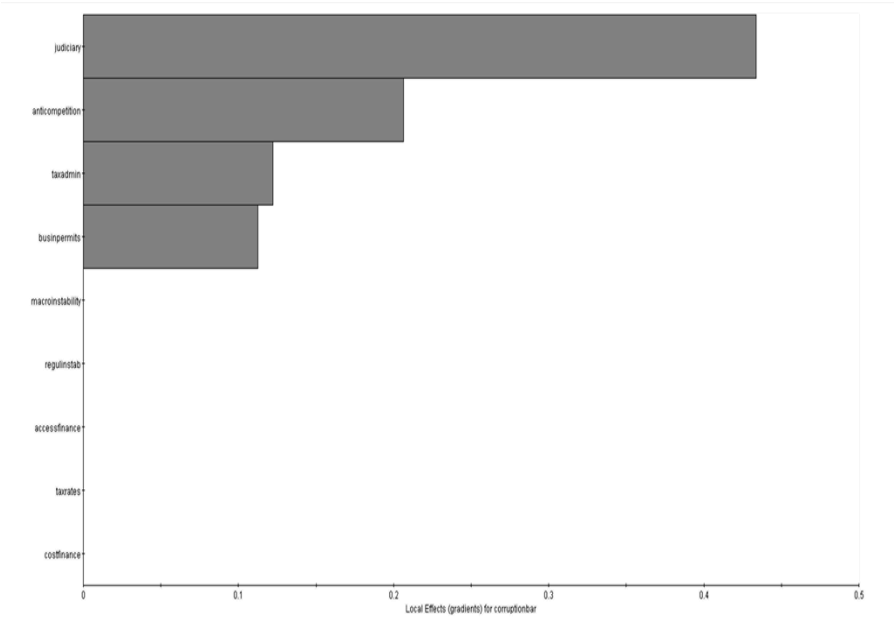

Figure 5-11 Most significant (95% confidence) business barriers on the perception of corruption as a business barrier

Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

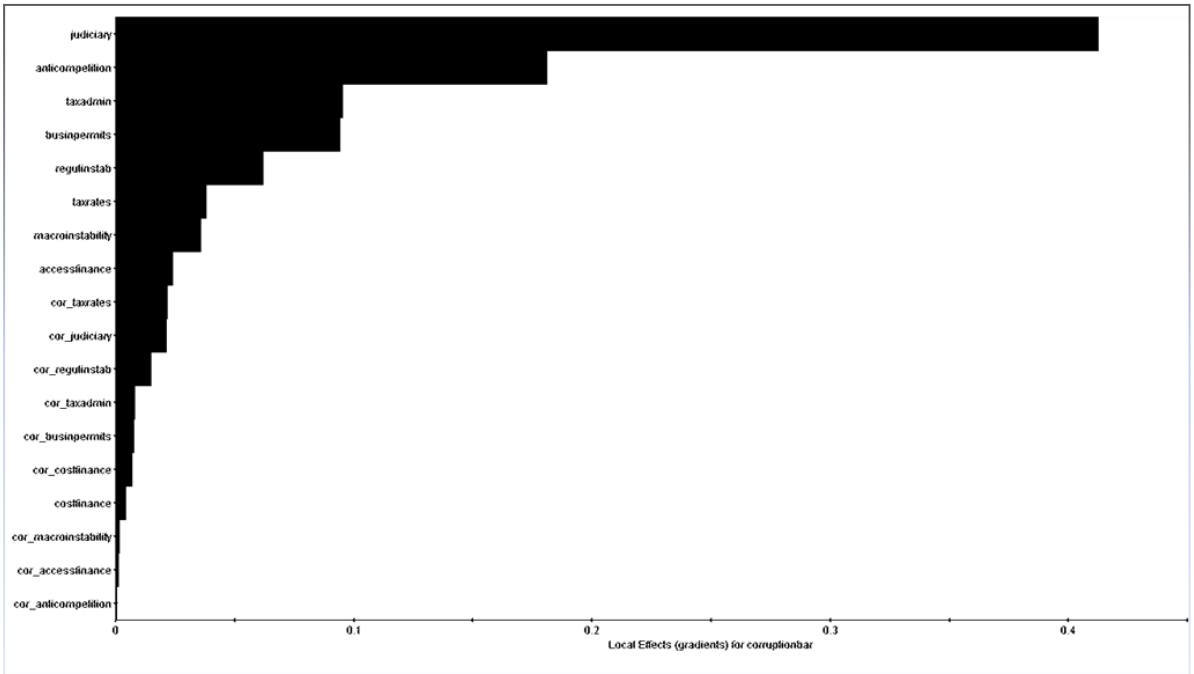

Figure 5-12 Linear response surface regressions for perception of corruption as a business barrier versus all business barriers including interaction terms

Note: Regression includes interaction terms.
Source: Author's computations based on the EBRD-World Bank BEEPS 2005 survey.

5.5 Institutions and the perception of corruption as a barrier to doing business

All the individual institutional barriers are positively correlated with the perception of corruption as a business barrier and to the highest significance level ($p<1\%$), when I control for country and industry fixed effects (Table 5.5). The frequency of corruption when interacting with civil servants is strongly correlated to the perception of corruption as a business barrier. Even though corruption may grease the wheels of commerce and surpass lengthy administrative processes (Méon and Weill 2010), corruption is largely associated with a constraint for the operation of businesses.

Table 5-5 Regression analysis with interaction variables

Dependent Variable: Perception of corruption as a business barrier										
corruptionfreq	**0.275*** **	**0.224*** **	**0.216*** **	**0.165*** **	**0.163*** **	**0.246*** **	**0.180*** **	**0.206*** **	**0.226*** **	**0.185*** **
	(0.010)	(0.018)	(0.020)	(0.022)	(0.020)	(0.017)	(0.020)	(0.016)	(0.020)	(0.019)
corf_accessfinance		0.010								
		(0.007)								
accessfinance		**0.187*** **								
		(0.019)								
corf_costfinance			**0.010**							
			(0.007)							
costfinance			**0.205*** **							
			(0.019)							
corf_taxrates				**0.026*** **						
				(0.007)						
taxrates				**0.200*** **						
				(0.024)						
corf_taxadmin					**0.023*** **					
					(0.008)					
taxadmin					**0.258*** **					
					(0.025)					
corf_businpermits						**-0.014***				
						(0.007)				
businpermits						**0.355*** **				
						(0.021)				
corf_macroinstabilit							**0.020*** **			
							(0.007)			
macroinstability							**0.296*** **			
							(0.021)			
corf_judiciary								**-0.016** **		
								(0.007)		
judiciary								**0.615*** **		
								(0.024)		
corf_anticompetitio									**-0.002**	
									(0.008)	
anticompetition									**0.360*** **	
									(0.022)	
corf_regulinstab										**0.017*** **
										(0.006)
regulinstab										**0.317*** **
										(0.017)
Observations	10,633	10,334	10,395	10,556	10,526	10,458	10,493	10,357	10,498	10,471
R-squared	0.235	0.278	0.281	0.291	0.317	0.313	0.334	0.483	0.348	0.341

Note. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.
Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

5.6 Corruption and young and fast growing firms

The institutional framework is a determinant of a country's sustainable development and economic growth. It has been supported that the discretionary power of public officials leads to a tactic selection of projects based on the ability to extract rents. Consequently, corruption and rent seeking become integral parts of economic governance and more difficult to tackle (Ngo, 2008). Corruption may deteriorate a country's economic position by deterring entrepreneurship, wasting resources, hindering private investment, impeding the collection of taxes, and obstructing the implementation of necessary regulations. Several attempts have been made to measure the economic cost of corruption due to illegal practices (Boswell and Richardson, 2003; EBRD, 2010; OECD, 2011; OECD, 2012). Firm level evidence has found that corruption hampers business growth (Fisman and Svensson, 2007) and has significant efficiency costs (Olken and Barron, 2009; Sequeira and Djankov, 2011).

I examine the channels through which corruption affects the business environment by investigating other firm institutional constraints for young and fast-growing firms. The perception of corruption as a barrier in doing business is overall closely linked to the other institutional constraints, as ranked by firm managers. I look at what are the main barriers for young and fast growing firms, which constitute an engine of growth. I define young firms as those created after 1995, and fast growing firms, the firms with the top 2/3rd fastest growth of their industry.

I regress indicator variables for young, fast growing firms and their interaction with the manager saying that corruption is a barrier in doing business (Table 5.6). Fast firms appear particularly affected by corruption. In addition, I regress indicator variables for young, fast growing firms and their interaction with the manager saying that business permits, tax rates, and tax administration is a barrier in doing business some barriers are strong (Table 5.7). Young firms are particularly adversely affected by business

permits (similar to fast firms), tax rates and tax administration (similar to young and fast-growing firms). I regress indicator variables for young, fast growing firms and their interaction with managers evaluating cost of finance and access to finance as a barrier in doing business (Table 5.8). Young firms appear particularly constrained by access to finance. Finally the relationship between young, fast, and the fast-growing young firms and managers evaluating macroeconomic instability, judiciary, anti-competition, and regulatory instability as barriers in doing business (Table 5.9). Fast firms appear severely affected by barriers resulting from the functioning of the judicial system, whereas young firms appear less likely to evaluate regulatory instability as a barrier in doing business.

Young, fast, and young and fast firms are particularly negatively affected by corruption, and a set of other institutions; financing institutions, the judicial system, tax rates and tax administration, and business permits, leading to a low growth model. The young and fast firms form a channel for growth and barriers to their operation can stall innovation, limit competition, and result to low growth, and lack of equity. Young firms can be particularly vulnerable to the business environment, access to finance, tax rates and tax administration, as well as business licenses, whereas the increase of firm operations over time, and gained experience with the business environment, could allow firms to overcome possible operational barriers for their business. Young firms have been found to have more concentrated ownership compared to older, established firms. When firms usually grow in size there is a tendency to spread corporate risk and have more decentralized ownership structure (Drumpetas et al. 2009). Similarly fast-growing enterprises have a need for efficient processes for acquiring business permits and transparent transactions that will not slow down their operations and increase their costs of doing business and decrease their expansion rate. Transparency, a well-functioning judicial system, availability of finance, effective tax administration, and efficient procedures for registering businesses and acquiring business licenses appear as the most important institutions for young and fast growing firms. This set of

institutions can result in a sustainable growth model, and promote business development for young fast growing firms. The analysis of the determinants of corruption as a barrier in doing business for all firms presented similar findings (Figures 5.8 and 5.9). The judicial system, tax administration, and business permits appear closely linked to the constraint of corruption. However for all firms in the sample anti-competition was also found closely linked to the constraint of corruption, whereas for young, fast – growing firms there is no particular effect of anti-competitive practices, instead availability of finance becomes crucially important. Judicial system, tax administration, and ease of business permits appear as particularly helpful institutions for the quality of the business environment.

All institutional constraints and the assessment of managers of corruption as a barrier in doing business for young and fast-growing firms are significantly positively correlated (Table 5.10). These results confirm the initial hypothesis of the study on the links between the various institutions that affect private sector development. Corruption and property rights institutions can affect access to finance across firms. Firm access to finance influences the cost of capital, the level of investment, the degree of technological transfer and the distribution of gains (Rajan and Zingales, 1998; Burgess and Pande, 2005), while financial services rely heavily on contracts and their enforcement (Acemoglu and Johnson, 2005; Djankov et al., 2007). Firms that want to expand their operations have to finance their expansion either through their own cash flows, equity, debt or informal loans. Weak contractual institutions and in particular corruption and corrupt courts may lower the returns of financial intermediaries and lower firm access to external finance.

In countries with higher levels of corruption and lower contract enforcement, the financial structure of the firms may be biased towards debt rather than equity or FDI, because debt contracts are usually cheaper to enforce (Rogoff, 1999; Henry, 2007). The growth of FDI is correlated with economic development and the reduction of corruption has been identified as one of the most important factors

to increase FDI inflows (Athanasouli 2011). FDI investors have also to obtain licenses, permissions, and authorizations to build and operate the plant, interacting with corrupt officials (Wei, 2000; Wei and Wu, 2002). Furthermore minority equity investors are particularly vulnerable to expropriation by corporate managers and block shareholders in corrupt countries (Du, 2008). Indeed, Acemoglu and Johnson (2005) document that weak property rights and contract institutions reduce equity markets development. Corruption may not only influence the forms of financial intermediation but also the overall access to finance. Djankov et al. (2007) show that low creditor rights decrease the extent of private credit. Therefore it becomes evident that corruption can adversely affect access to finance, which is vital particularly for young and fast-growing enterprises, whereas financing constraints appear linked to the manager's evaluation of corruption as a constraint in doing business. This could be explained by the fact that managers associate corruption as related to the financing constraints they experience in the operation of their operations.

Corruption appears to severely harm all these aspects of business performance for young and fast companies. Table 5.11 shows in more detail the severe, adverse effect that corruption has on young and fast companies. I examine a set of firm performance indicators, the log of sales, the size of exports, the growth of exports, innovation, and size of the company, based on its employee size. It has a negative effect on innovation, it limits exports and export growth, it reduces firm sales and it adversely effects firm size. These findings underline the detrimental effect that corruption has on business performance, growth, and innovation for this particular category of companies that are vital for economic development.

Corruption can deteriorate private sector development through its impact on the internal structure of the firm. Firms may adapt their structures to fit the institutions and corruption, which can lead to inefficiencies. Corruption may urge managers to engage in activities that are not directly

productive, such as alluring public officials through unofficial payments or gifts in exchange for various services. These additional operational costs of corruption can cause a distortion in use of the firm's resources and drive activities away from efficiency. Corruption and the expectation of unofficial payments and gifts depict an environment of favour-for-favours and that influences the internal structure, corporate governance and management practices. Second, some firms may pay bribes to outbid competing parties in public procurement and influence government decrees to increase their market share. The resulting regulations would not impose sufficient pressure for the adoption of more competitive firm structures. This can obstruct the development of effective firm strategies, incentives for firm restructuring, and employee empowerment.

In a corrupt environment incumbents may be favoured over new entrants or innovative start-up firms. Young and fast firms that constitute the engine of growth are found to be particularly hampered in this environment of favour-for-favours, resulting in economic inefficiencies and other institutional drawbacks.

Table 5-6 Perception of corruption as a business barrier by Young and Fast Firms compared to other firms

Dependent variable:	Corruption barrier
Young	0.033
	(0.025)
Young & fast	-0.029
	(0.041)
Fast	0.078***
	(0.029)
Observations	11,802
R-squared	0.125

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

Table 5-7 Perception of different institutions as business barriers by Young and Fast Firms compared to other firms

Dependent variable:	Business permits	Tax rates	Tax administration
Young	0.120***	0.085***	0.074***
	(0.023)	(0.024)	(0.025)
Young & fast	-0.054	-0.055	-0.070*
	(0.039)	(0.040)	(0.040)
Fast	0.114***	-0.005	0.043
	(0.027)	(0.028)	(0.028)
Observations	12,107	12,305	12,241
R-squared	0.054	0.122	0.120

Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey

Table 5-8 Perception of different institutions as business barriers by Young and Fast Firms compared to other firms

Dependent variable:	Access to finance	Cost of finance
Young	0.077***	0.039
	(0.026)	(0.026)
Young & fast	-0.032	-0.013
	(0.042)	(0.041)
Fast	0.012	0.004
	(0.030)	(0.029)
Observations	11,995	12,056
R-squared	0.070	0.088

Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey

Table 5-9 Perception of different institutions as business barriers by Young and Fast Firms compared to other firms

VARIABLES	Macroeconomic instability	Judiciary system	Anticompetitive pressures	Regulatory instability
Young	-0.009	-0.036	0.004	-0.042*
	(0.025)	(0.024)	(0.026)	(0.024)
Young & fast	-0.055	-0.057	-0.008	-0.005
	(0.040)	(0.039)	(0.042)	(0.040)
Fast	0.030	0.092***	0.040	0.044
	(0.028)	(0.027)	(0.029)	(0.028)
Observations	12,158	11,744	12,068	12,140
R-squared	0.134	0.143	0.071	0.184

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

Table 5-10 Frequency of corruption frequency, institutional constraints and perception of corruption as a business barrier for young and fast companies

Dependent:	Perception of corruption as a business barrier								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
corruptionfreq	**0.229*** **	**0.224*** **	**0.212*** **	**0.203*** **	**0.210*** **	**0.207*** **	**0.172*** **	**0.208*** **	**0.210*** **
	(0.021)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.018)	(0.020)	(0.020)
accessfinance	**0.196*** **								
	(0.025)								
costfinance		**0.222*** **							
		(0.022)							
taxrates			**0.263*** **						
			(0.024)						
taxadmin				**0.327*** **					
				(0.026)					
Busin.permits					**0.300*** **				
					(0.027)				
macroinstability						**0.373*** **			
						(0.024)			
judiciary							**0.584*** **		
							(0.026)		
anticompetition								**0.348*** **	
								(0.023)	
regulinstab									**0.371*** **
									(0.025)
Observations	1,826	1,834	1,868	1,859	1,844	1,851	1,831	1,862	1,854
R-squared	0.282	0.290	0.298	0.329	0.313	0.350	0.486	0.343	0.359

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1 Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005

Table 5-11 The impact of Corruption on Firm Performance

VARIABLES	(1) Log sales	(2) Exports	(3) Export growth	(4) Firm Size	(5) Innovation
corruption (bribes as % of total annual sales)	-0.035**	-0.685***	-3.544**	-0.036***	-1.181***
	(0.014)	(0.258)	(1.770)	(0.012)	(0.364)
Observations	1,493	1,955	420	1,986	1,256
R-squared	0.208	0.076	0.168	0.149	0.059

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Source: Author's elaboration based on the variables included in the EBRD-World Bank BEEPS 2005 survey.

5.7 Conclusion

This chapter examined the relationship between institutions and corruption to form the base of a business development model framework for firms under a corrupt business environment. Different institutions were examined on their impact to the severity of corruption as a business barrier, as experienced by firm managers. A specific set of institutions was found to be particularly important for young and fast growing firms that form the engine for growth, thus contributing to a positive growth model. Widespread corruption may have negative effects on competition and private sector development. It can cause misallocation of resources, and changes on the composition of public expenditure (Mauro 1996). A corrupt environment deprives firms from equal market opportunities and increases the cost of doing business. This can create obstacles to the market entry of firms. In the incidence of corrupt judicial systems, the operational ability of firms is obstructed, as is their ability to enforce contracts, resulting in fewer business opportunities. Corruption decreases competition and efficiency and develops a "rent-seeking" environment. The demand of bribes by public officials, for approving licenses and permits, reduces the amount of firms that can enter the market (Sullivan and A. 2004). Young and fast-growing firms are particularly hampered in a corrupt business environment. Their business performance is adversely affected, as corruption decreases their sales, reduces exports and

export growth, and reduces innovation, possibly by the discrimination and misallocation of resources induced by the bribing firms, and the overall inefficiencies in business-state transactions. Thus, corruption damages the business environment and the economy as a whole, as young and fast-growing firms have been characterized the engine of growth. A business development model that focuses on transparency, together with a well-functioning judicial system, availability of finance, effective tax administration, and efficient procedures for registering businesses and acquiring business licenses appear as the most important institutions for young and fast growing firms. As shown by the findings of this study these institutional factors affect the experience reported by firm managers of corruption as a barrier in doing business, and therefore their reduction will not only ensure a positive growth model for the countries of the study, but also reduce the negative effects of corruption as experienced at the firm level.

CHAPTER 6

6. Conclusions

This dissertation constitutes a comparative study of corruption in Southern Europe, Eastern Europe, and Central Asia and its impact on business performance, with a particular focus on Greece. This thesis examines the rate and impact of business corruption on different types of firms and investigates the institutional factors that affect it, under the prism of International Political Economy.

Corruption creates unequal conditions for companies in their markets and increases transaction costs among businesses and between businesses and the state. For example, corruption may increase trade costs by requiring additional pay to clear goods across borders or increase bureaucratic procedures. Time and money is wasted on unofficial payments and bribes of various stakeholders to overcome problems that are often stemming from the institutional setting and the complexity of laws. Corruption increases business costs and these elevated costs create a barrier to the creation of new businesses, thereby reducing opportunities for business entry and development of existing ones. This hampers productivity growth by reducing competition and lowering potential economies of scale, and may increase consumer prices and ultimately reduce well-being, while insiders benefit from economic rents. The comparative study of corruption in Southern Europe, Eastern Europe, and Central Asia and its impact on business growth requires systematic research, as there is a lack of comparative studies in these regions with detailed analysis of the impact of corruption on business development, which would allow evaluating the interaction between corruption and local institutions. This thesis is based on an interdisciplinary approach, as corruption has political, social and economic aspects and implications and should be examined in all its different dimensions to give a complete assessment of its effects on businesses.

The thesis lies on the interaction between economy and politics, business and institutions, through the perspective of International Political Economy. International Political Economy allows highlighting the importance of institutions as a determinant of the negative effects of corruption on the private sector, and on different types of businesses, and leads to conclusions on how to address them by improving institutions necessary for business entry, effective operation and development of enterprises. The International Political Economy provides an integrated approach to the study of the multifaceted phenomenon of corruption.

The thesis commences with an analysis of the determinants of corruption. The first chapter examines the determinants of corruption, and the reasons of cross-country variation. For the scope of this analysis, the determinants of corruption are considered as parts of different but interdependent categories. The chapter aims to extend the understanding of the determinants of corruption and the dynamic links between them. Firstly, I distinguish between Constitutional Characteristics, Exogenous Conditions, Institutions, and Policies. Institutions are examined as formally arisen from Constitutional Characteristics and Exogenous Conditions that allow or necessitate their existence. The literature to date on the causes of corruption is either analysing its causes in an order based on the significance of the empirical results, or in the most extensive reviews, differentiates the causes in economic, political and sociological factors or even separates them based on the sources of the results, the types of surveys used (Treisman, 2007). The chapter contributes to the existing knowledge and understanding of the phenomenon of corruption and its determinants, by analysing the links between the multiple determinants of corruption, their interdependence and different origins.

The second chapter of the thesis examines the effect of business corruption on firm sales, both at the firm level and at the industry, regional, and country levels. We focus on two main forms of business corruption. First, we examine the effect of administrative corruption on sales, when firms make

bribe payments, depicted by the amount of bribes as percentage of annual sales, and corruption frequency. Second, we examine the effect of state capture on sales, when firms actually decide to bribe to achieve changes in the content of government laws and regulations affecting their business. Firms are found to be affected to a different extent by these two forms of corruption. At the firm level, we find a negative relationship between corruption and unofficial payments on firm performance. On the contrary, state capture, the influence exerted on government decrees from some firms, appears positively correlated with firm sales. However, when we examine the impact of contextual corruption, that is the aggregate level of corruption of the industry, region or country of each firm, this impact on firm size and growth is negative for both administrative corruption and state capture. We then examine the effect of corruption on the development of different types of companies. The number of employees (size of the company), the origin (new, old, privatised) and ownership (domestic, foreign) of the company are found to significantly affect corruption's detrimental effect on firm size. The findings consistently suggest that contextual corruption is more detrimental for firm sales than the firm's own experience of corruption may have important policy implications. The business environment appears to have a large effect on firm behaviour, and state capture exerted by some firms has important negative spillovers on their peers. Therefore, the development of appropriate competition policies, regulations and efficient enforcement could complement anticorruption efforts and lower corruption and ensure more favourable conditions for the operation and growth of firms.

The third chapter of the thesis focuses on the development and impact of corruption in Greece. It analyses administrative corruption as a business barrier to firm size and performance, and identifies the sectors that are most hampered by corruption and the sectors most prone to corrupt behaviour. The contextual effect of corruption, measured by the extent of corrupt practices in the firm sector, appears to be more detrimental to firm performance than the firm own experience of corruption. Hence, both

the sector and the firm environment determine the overall, negative, and systemic effect of corruption on firms and firm performance may be affected by corruption irrespective of the degree of actual firm engagement in corrupt practices. However, the relationship between corruption and firm growth appears to be significantly affected by the size of the company. Small, medium and large firms are affected differently by administrative corruption, and the degree of their engagement in corrupt practices varies. We find that corruption appears more detrimental for the sales in large firms. As large firms represent the major part of employment, this underlines the importance of institutional reforms that will improve the overall framework for doing business in Greece and target the most vulnerable sectors and firms.

After examining the magnitude of corruption and its impact on different types of enterprises, in all the countries of the study and particularly in Greece, the thesis investigates the institutions that affect business development. Chapter four presents the results of new in-depth face-to-face interviews in Greece over 2013-14 to gain an understanding of the business barriers that specific sectors in Accounting, Construction, Catering, and Retail clothing are facing. Firms' answers reveal a system for doing business that seems to be overall inconsistent, uncertain, time consuming and in some cases corrupt. The complex regulatory system creates opportunities for public officials to use their discretionary power to pressure businesses and extract rents. Bribery still seems to be a response to bureaucratic obstacles, however there is a recognition that this practice needs to change. Most firms mentioned that before the crisis corruption had decreased but that the negative economic climate challenges the survival of firms and maintains or increases corruption, undeclared employment and profit. Both old and young businessmen condemned corrupt activities, even if they engaged in them, allegedly to maintain their survival and deal with anti-competitive practices of other firms in their sector. The older businessmen blame the weak institutions and increased discretionary power of public officials

for engaging in bribing as a mean to sustain their business and not face any added unlawful burdens from public officials or in order to maintain enough profit in the current climate for their firm to survive. By contrast the younger businessmen in the sample were completely negative of engaging in any corrupt activity with public officials and partly blamed the older businessmen for the fact that some public officials continue to demand bribes from businesses.

Based on the results of the case study of Greece, Chapter five presents a model of business development that depicts the interaction between the economy and politics, business and institutions, through the perspective of International Political Economy. The chapter examines the relationship between institutions and corruption to form the base of a business development model framework for firms under a corrupt business environment. Whereas for political corruption there are specific measures that can reduce its occurrence, like preventive expenditure control, pre-contractual control for high economic value procurement plans, for corrupt activities occurring between the business and the state a range of other measures need to be in place related to both the public sector and the business environment (Karkalis 2005). The level of corruption and the degree of damaging various companies depends on institutions and the legislative framework in force in each country on the establishment, operation, and development of enterprises. Therefore, I examine the impact of different institutions on the severity of corruption as a business barrier, as experienced by firm managers. Young and fast-growing firms appear particularly hampered in a corrupt business environment. Corruption decreases their sales, reduces their exports and export growth, and lowers their propensity to innovate, possibly by the discrimination and misallocation of resources induced by the bribing firms, and the overall inefficiencies in business-state transactions. Thus, corruption damages the whole economy, as young and fast-growing firms have been characterized as the engine of growth. A business development model that focuses on transparency, together with a well-functioning judicial system, availability of finance,

effective tax administration, and efficient procedures for registering businesses and acquiring business licenses appear as the most important institutions for young and fast growing firms. These institutional factors affect particularly the experience of corruption as a barrier in doing business reported by firm managers, and therefore their reduction would not only ensure a positive growth model for the countries of the study, but also reduce the negative effects of corruption experienced at the firm level.

6.1 Policy implications

Overall, the investigation of the determinants of corruption on Chapter 1 and the analysis throughout this thesis support the findings of Rontos et al. that corruption needs to be addressed through a variety of measures tailored not only to the economic development of each country but also their social, political, and other institutional characteristics (Rontos et al. 2013). The in depth surveys in Greek firms highlights important aspects that can facilitate doing business in a corrupt environment. The relationship between governance and corruption, at the country level are very close, since the low quality of government can allow for corrupt activities to take place, and widespread corruption is not compatible with strong governance. Strengthening the level of governance is necessary in order to effectively tackle corruption (Argyriadis 2011). Reducing administrative bureaucracy and the complexity of state organisation, and improving the efficiency of the tax system could facilitate doing business. The cost of taxation, derived from the cost of taxes imposed and the cost of complying with the tax administration, together with the quality of governance, and the complex regulatory policies also need to be addressed to reduce corruption and shadow economy (Manolas et al. 2013). Clear jurisdiction and cooperation between ministries and government services could support business operations. In addition, availability of information for similar enterprises, organised Professional bodies that can provide relevant informational resources and facilitate access to finance may promote business development. A reduction of the number of applicable laws and a simplification of regulations dictating

the business activity is also important. Overregulation can be a tool for corruption and when a new law is passed, previous, contradictory laws should be abolished (Pampoukis 2008).

The investigation of the institutions that affect the operation of business under a corrupt environment also shows that corruption and the quality of the judicial system are highly correlated and interlinked. In more corrupt countries, the court system may be less fair and impartial and able to enforce its decisions. An impartial judiciary, fairness in the court system, and strong rule of law can mitigate the negative effects of corruption in the private sector. The ability to enforce contracts and protect property rights can ensure agents abide by the rules, increase trust and limit opportunities for private firms to deviate from the specified contractual terms. This could foster business development especially for industries that depend heavily on contract arrangements.

Policies to foster competition in the economy and specific sector regulations are also important. One of the negative effects of corruption is the development of anti-competitive practices, notably barriers to entry. A corrupt environment and an unlawful favour-for-favours relationship between the state and some firms, deters competition, and obstructs restructuring. A competitive environment could drive inefficient firms with poor corporate governance exit the market and support business entry, and expansion of fast-growing companies. In turn, the entrance of new firms may reduce the bribing abilities of firms previously sheltered from competition that benefited from monopoly rents. This may subsequently prevent regulatory capture.

These findings are particularly relevant for young and fast-growing firms that constitute the economy's engine for growth. Young and fast growing companies are particularly adversely affected by business permits, tax rates, and tax administration. Young firms also appear particularly constrained by access to finance, whereas fast-growing firms appear severely affected by barriers resulting from the

functioning of the judicial system. These findings emphasize the need for policy measures to address these constraints as young and fast-growing firms are particularly vulnerable to the business environment. Barriers to their operation can stall innovation, limit competition, and result to low growth, and lack of equity.

Young, and fast-growing enterprises need efficient processes for acquiring business permits and transparent transactions that will not slow down their operations and increase their costs of doing business and decrease their expansion rate. Transparency, a well-functioning judicial system, availability of finance, effective tax administration, and efficient procedures for registering businesses and acquiring business licenses appear as the most important institutions for young and fast growing firms. This set of institutions can result in a sustainable growth model, and promote business development for young fast growing firms. The analysis of the determinants of corruption as a barrier in doing business for all firms presented similar findings. The judicial system, tax administration, and business permits appear closely linked to the constraint of corruption and relevant policies can significantly improve the business environment. However for all firms in the sample anti-competition was also found closely linked to the constraint of corruption. These results confirm the links between the various institutions and private sector development.

Corruption is also related to the ease of acquiring business licenses. Firms often engage in illegal practices and bribes to ensure their operation at first (e.g. through operation licenses), and then their expansion. This thesis has found that in the countries of the study, and in particular in some industries, such as construction, bribes may be frequently offered to acquire business permits and licenses. High frequency of corruption in public services is associated with weaker government effectiveness, and reflects a lower quality of public services, and civil service. An ease in the administrative barriers for starting a business and acquiring licenses and permits could save time and reduce costs for the private

sector. In this respect another measure that can promote sustainable development as well as limit the adverse effect of corruption on enterprises, is the implementation of effective e-government procedures. This was particularly highlighted in the face-to-face interviews with Greek businesses.

E-government can improve the state mechanism and public administration and public services towards citizens and businesses, and can effectively address issues with tax administration and registering businesses or acquiring business permits, whereas it can effectively reduce administrative corruption. Increasing the scope of e-government may lead to more efficient public services to businesses and citizens, a modernisation and adaptation of public administration, and a change in the information infrastructure. E-government can ensure that information is clearly provided and is easily accessible by all citizens, and that the interaction between citizens or businesses and the state is facilitated and can be achieved fully, or to a certain extent, electronically. This ensures that the state can be better governed as e-government can provide a platform for better monitoring of the public mechanism, and a better evaluation of the various processes. E-government is particularly important for Public Administration as a tool to ensure the rational use of public resources , and the provision of effective public services. The development of e-government requires the cooperation of the public administration, with the technical world for the development of e-Government systems that serve the needs of the public in the most appropriate and effective way (Technical Chamber of Greece 2006).

Introduction of transparency in public administration and strengthening of disciplinary procedures, reduction of discretion in decision-making, intensification of controls and penalties, as well as modern state audit in order to collect information and detect any mischiefs or problems can also increase effectiveness of public administration and increase transparency (Nikolopoulou 1998; Sarmas 2006). Schneider points out that a better protection and provision of whistle-blowing platforms is also important to reduce corruption, as well as penalties of losing office for public servants and politicians

being involved in bribery, and penalties of exclusion from public contracting for private businesses (Schneider 2013). The low information costs associated with e-government and the higher level of transparency of public decisions could increase the accountability of governments towards their citizens, as well as reduce the costs to monitor large public administrations in countries with weak institutions (Shleifer and Vishny 1993). In addition, e-government may reduce the extent of red tape for businesses in their dealing with public officials. It can promote business development and increase firm compliance with norms and regulations. Reducing the time needed to deal with government regulations could foster entrepreneurship (Ciccone and Papaioannou 2007; Harding and Javorcik 2011), decrease the costs of tax compliance (Wingender 2008; Beck, Lin, & Ma 2011), and increase incentives to move to the formal sector.

E-government could affect property rights, and contract institutions, by decreasing administrative corruption. E-government limits the scope for bribery and for deviation from agreed contracts as it reduces the need for contacts between corrupt officials and citizens or businesses. Under the assumption that bribes are partly seen as a way to avoid inefficient state regulation (Leff, 1964), and taking into account that the e-government improves the quality of public services, firms and citizens should have less incentives to pay bribes when a government implements efficient online-services. Furthermore, e-government may also decrease the costs of contract enforcement and deter tax evasion, by facilitating firms, households, and civil servants' monitoring. Therefore, e-government could promote more transparency, higher levels of tax compliance, and an overall decrease in the regulatory burden of the firms.

The development of e-government and access to online information about government services helps increase accountability and tackle petty corruption by limiting the discretionary power of government officials and public servants. An environment that can also support free media is pivotal for

this purpose since it helps support an anti-corruption agenda, expose corrupt practices, and exert pressure on the government for reforms. Monitoring the status of anti-corruption reforms and current progress is vital. Specific attention should be devoted to online services and support to citizens offered through other anti-corruption agencies and civil society organizations working against corruption. Information on the ways to respond to an incident of corruption should be available, while whistle blowing and complaints about corrupt acts and practices should be encouraged. Coordinated actions can affect values and beliefs and strengthen anti-corruption efforts, and have a bottom-up effect on promoting transparency. Indicators of information on anti-corruption progress need to be developed and frequently monitored. Civil society orgaisations, like Transparency International, could therefore be particularly important in the road to transparency. However the third sector in Greece falls behind its western counterparts, and civic education is not in place, whereas the current economic crisis has severely affected the availability of public resources to fund civil society initiatives (Huliaras 2015).

Continually monitoring the government's anti-corruption efforts through a free and objective media is particularly important for successful reforms. Such efforts can lead to strong political institutions, strengthen anti-corruption efforts, and increase transparency. The participation of citizens and media is crucial to promote transparency and encourage comprehensive reforms in the battle against corruption. The citizens and the media can act as monitoring agents against both administrative and grand corruption, promote anti-corruption reforms, and the work of law enforcement agencies, and increase political accountability, by tracking the progress of reforms and exposing mischief or delays in the implementation of specific measures.

The phenomenon of corruption affects the functioning of society and the citizens in each country. The negative effects of corruption on the public sector, the private sector and the general business environment highlight the need to conduct more research and empirical analysis to address

corruption. The curtail of corruption in all sectors could have a direct benefit on doing business in each country and increase business initiatives and opportunities for business development. Progress towards transparency would not only strengthen the public feeling on the rule of law it could also affect cultural norms and behaviours, and help to identify and promote a healthy mentality and way of thinking to the future generations. Thus the reduction of corruption could inspire a respect for institutions, promote political stability, and foster long-term economic growth.

Appendices

Greek Questionnaire as given to firms and analysed in Chapter 4:

Έρευνα Επιχειρηματικού Περιβάλλοντος στην Ελλάδα

Η έρευνα αυτή βασίζεται στα αποτελέσματα της έρευνας σε 500 επιχειρήσεις στην Ελλάδα, με βάση τα στοιχεία από το Business Environment and Enterprise Performance Survey (BEEPS), η οποία διεξήχθη στην Ελλάδα από την Ευρωπαϊκή Τράπεζα Ανασυγκρότησης και Ανάπτυξης, σε συνεργασία με την Παγκόσμια Τράπεζα, το 2005. Η έρευνα έχει ως στόχο να βελτιώσει την κατανόηση των συνθηκών για την επιχειρηματική δραστηριότητα στην Ελλάδα. Η έρευνα αυτή αποτελεί μέρος της διδακτορικής μου διατριβής και δεν σχετίζεται ούτε ανατέθηκε από την ΕΤΑΑ και τη Παγκόσμια Τράπεζα. Ωστόσο, διεξάγεται με βάση τα ευρήματα από την έρευνα BEEPS 2005 στην Ελλάδα, όπου κατέστη προφανές ότι οι επιχειρήσεις στο κλάδο σας παρεμποδίζονται σοβαρά από τη διαφθορά και άλλα επιχειρηματικά εμπόδια ή τουλάχιστον αξιολογούν τη διαφθορά ως σοβαρότερο επιχειρηματικό εμπόδιο σε σχέση με άλλους κλάδους στην Ελλάδα. Σε μια προσπάθεια να αξιολογηθεί το επιχειρηματικό περιβάλλον στην Ελλάδα, καθώς και οι τομείς που επηρεάζονται περισσότερο από τη διαφθορά και άλλα εμπόδια, διεξάγεται η συνέντευξη με την εταιρεία σας.

Ο σκοπός αυτής της έρευνας είναι η καλύτερη κατανόηση των περιορισμών που ενδεχομένως εμποδίζουν την ανάπτυξη των επιχειρήσεων όπως η δική σας. Ο αρχικός στόχος είναι να κατανοήσουμε καλύτερα τις συνθήκες για την επιχειρηματική δραστηριότητα στην Ελλάδα και να εξεταστούν οι κλάδοι που αντιμετωπίζουν τα πιο συχνά επιχειρηματικά εμπόδια και τους λόγους πίσω από αυτό. Ο στόχος αυτής της έρευνας είναι να επιστήσει την προσοχή στα προβλήματα που αντιμετωπίζουν συγκεκριμένοι κλάδοι και τις διαφορετικές πολιτικές και πρακτικές που δημιουργούν πρόσθετα εμπόδια σε αυτές τις ιδιωτικές επιχειρήσεις, έτσι ώστε τελικά να υπάρξουν ενδεχόμενες πρωτοβουλίες και προγράμματα για την ενίσχυση της υποστήριξης για τις επιχειρήσεις αυτές. Οι απαντήσεις σας θα πρέπει να αντανακλούν μόνο την αντίληψή σας και την εμπειρία σας μέσα από την επιχειρηματική δραστηριότητα στην Ελλάδα.

Θα ήθελα να σας διαβεβαιώσω, ότι οι πληροφορίες που λαμβάνονται εδώ αντιμετωπίζονται αυστηρά ανώνυμα και εμπιστευτικά. Η έρευνα αυτή θα αποτελέσει μέρος της διδακτορικής μου διατριβής στο Τμήμα Πολιτικής Επιστήμης και Διεθνών Σχέσεων του Πανεπιστημίου Πελοποννήσου. Ούτε το όνομά σας ούτε το όνομα της εταιρείας σας θα χρησιμοποιηθούν σε οποιοδήποτε άρθρο προκύψει από αυτή την έρευνα.

Ημερομηνία Συνέντευξης:

Όνομα ερευνόμενου:

Επωνυμία Εταιρείας:

Τηλέφωνο:

Email:

Όνομα ερευνήτριας: Δάφνη Αθανασούλη, daphne.athanasouli@gmail.com

Έτος Σύστασης Εταιρείας:

Νομικό Καθεστώς Εταιρείας:

Θέση ερευνόμενου/ Τίτλος εργασίας:

1. Θα μπορούσατε να διευκρινίσετε κύρια γραμμή προϊόντων της εταιρείας σας ή τη κύρια γραμμή της υπηρεσίας όσον αφορά τις πωλήσεις;

2. Πόσοι εργαζόμενοι με πλήρη απασχόληση εργάζονται για την εταιρεία αυτή σήμερα;

3. Ποιο από τα παρακάτω περιγράφει καλύτερα το μεγαλύτερο μέτοχο (ους) στην εταιρεία σας;

Ατομική

Οικογένεια

Ευρύ κοινό

Ξένη Εταιρεία

Τράπεζα

Ιδιωτικοί επενδυτικοί φορείς

Διευθυντές της εταιρείας

Εργαζόμενοι της επιχείρησης

Κυβέρνηση ή κυβερνητική υπηρεσία

Άλλο (διευκρινήστε) .....

Δεν ξέρω

4. Πόσο σημαντικές είναι οι ακόλουθες κατηγορίες ως πιθανές πηγές νέων πελατών για την επιχείρησή σας;

(Δεν είναι σημαντικό: 1, Ελαφρώς σημαντικό: 2, Αρκετά σημαντικό: 3, Πολύ σημαντικό: 4, Εξαιρετικά σημαντικό: 5, δεν ξέρω: -9)

Οικογένεια και φίλοι 1 2 3 4 5 -9

Πρώην εργαζόμενοι που εργάζονται τώρα για τον δυνητικό πελάτη ή προμηθευτή 1 2 3 4 5 -9

Προηγούμενη απασχόληση των στελεχών από τον δυνητικό πελάτη ή προμηθευτή 1 2 3 4 5 -9

Κρατικές υπηρεσίες 1 2 3 4 5 -9

Οι υπάρχοντες πελάτες ή προμηθευτές 1 2 3 4 5 -9

Οι επιχειρηματικές ενώσεις / εμπορικά επιμελητήρια 1 2 3 4 5 -9

Εκθέσεις και άλλες δημόσιες πηγές πληροφοριών 1 2 3 4 5 -9

5. Η εταιρεία σας χρησιμοποιεί τακτικά στην επαφή με τους πελάτες και τους προμηθευτές οποιαδήποτε από τα παρακάτω;

(Ναι Όχι)

Σταθερή τηλεφωνική γραμμή: Ναι Όχι

Fax: Ναι Όχι

Κινητό τηλέφωνο: Ναι Όχι

E-mail: Ναι Όχι

Internet: Ναι Όχι

6. Το δικαστικό σύστημα για την επίλυση των επιχειρηματικών διαφορών, πιστεύετε ότι είναι;

(Ποτέ: 1, Σπάνια: 2, Μερικές Φορές: 3, Συχνά: 4 , Συνήθως: 5, Πάντα: 6, Δεν ξέρω: -9)

α. Δίκαιο και αμερόληπτο 1 2 3 4 5 6 -9

β. Διεφθαρμένο 1 2 3 4 5 6 -9

γ. Γρήγορο 1 2 3 4 5 6 -9

δ. Προσιτό 1 2 3 4 5 6 -9

ε. Ικανό να επιβάλει τις αποφάσεις του 1 2 3 4 5 6 -9

7. Σε ποιο βαθμό συμφωνείτε με τις ακόλουθες δηλώσεις;

(Διαφωνώ απόλυτα: 1, Διαφωνώ στις περισσότερες περιπτώσεις: 2, Τείνω να διαφωνώ: 3, Τείνω να Συμφωνώ: 4, Συμφωνώ στις περισσότερες περιπτώσεις: 5, Συμφωνώ Απόλυτα: 6, Δε ξέρω: -9)

α. "Πληροφορίες σχετικά με τους νόμους και τους κανονισμούς που επηρεάζουν την εταιρεία μου είναι εύκολο να αποκτηθούν": 1 2 3 4 5 6 -9

β. "Οι νόμοι και οι κανονισμοί που επηρεάζουν την εταιρεία μου είναι σαφείς": 1 2 3 4 5 6 -9

8. Πιστεύετε ότι η δαπάνη χρόνου για την επαφή με δημοσίους υπαλλήλους, σχετικά με την εφαρμογή και ερμηνεία των νόμων και των κανονισμών είναι επιζήμια για την επιχείρησή σας;

(Ποτέ: 1, Σπάνια: 2, Μερικές Φορές: 3, Συχνά: 4 , Συνήθως: 5, Πάντα: 6, Δεν ξέρω: -9)

1 2 3 4 5 6 -9

9. Πόσο συχνά είναι η ακόλουθη δήλωση αληθινή; "Αν ένας δημόσιος υπάλληλος ενεργεί ενάντια στους κανόνες μπορώ να πάω συνήθως σε άλλο υπάλληλο ή στον προϊστάμενό του χωρίς προσφυγή σε άτυπες πληρωμές / δώρα".

(Ποτέ: 1, Σπάνια: 2, Μερικές Φορές: 3, Συχνά: 4 , Συνήθως: 5, Πάντα: 6, Δεν ξέρω: -9)

1 2 3 4 5 6 -9

10. Όσον αφορά την επαφή σας με το Δημόσιο, θα λέγατε ότι οι παρακάτω δηλώσεις είναι πάντα, συνήθως, συχνά, μερικές φορές, σπάνια ή ποτέ αλήθεια;

(Ποτέ: 1, Σπάνια: 2, Μερικές Φορές: 3, Συχνά: 4 , Συνήθως: 5, Πάντα: 6, Δεν ξέρω: -9)

α. "Είναι σύνηθες για τις επιχειρήσεις στο κλάδο μου να πρέπει να πληρώσουν κάποια άτυπη, πρόσθετη πληρωμή / δώρα, για εγκρίσεις, άδειες, και άλλα έγγραφα που εξαρτώνται από το Δημόσιο

1 2 3 4 5 6 -9

β. "Οι επιχειρήσεις στο κλάδο μου συνήθως γνωρίζουν εκ των προτέρων για το ποσό αυτής της πρόσθετης πληρωμής / δώρων"

1 2 3 4 5 6 -9

11. Σχετικά με τις ανεπίσημες πληρωμές / δώρα που μια εταιρεία σαν τη δική σας, θα κάνει σε ένα δεδομένο έτος, θα μπορούσατε να εκτιμήσετε τη συχνότητα πληρωμών / δώρων για τους ακόλουθους σκοπούς:

(Ποτέ: 1, Σπάνια: 2, Μερικές Φορές: 3, Συχνά: 4 , Συνήθως: 5, Πάντα: 6, Δεν ξέρω: -9)

α. Για σύνδεση με οργανισμούς κοινής ωφέλειας (ηλεκτρικό ρεύμα, νερό και τηλέφωνο)

1 2 3 4 5 6 -9

β. Για να αποκτήσετε άδειες άσκησης επιχειρηματικής δραστηριότητας 1 2 3 4 5 6 -9

γ. Για σύναψη συμβάσεων με δημόσιους φορείς 1 2 3 4 5 6 -9

δ. Για την αντιμετώπιση των υγειονομικών επιθεωρήσεων 1 2 3 4 5 6 -9

ε. Για εγκρίσεις κι επιθεωρήσεις από τη πυροσβεστική υπηρεσία1 2 3 4 5 6 -9

στ. Για την αντιμετώπιση των περιβαλλοντικών επιθεωρήσεων 1 2 3 4 5 6 -9

ζ. Για συναλλαγές σχετικές με τη καταβολή φόρων 1 2 3 4 5 6 -9

η. Για συναλλαγές που αφορούν εισαγωγές προιόντων (εκτελωνισμοί κ.α.) 1 2 3 4 5 6 -9

θ. Για τη διεκπεραίωση υποθέσεων μέσω των δικαστηρίων 1 2 3 4 5 6 -9

ι. Για τη διαμόρφωση νόμων, διαταγμάτων κλπ. 1 2 3 4 5 6 -9

12. Μπορείτε να μου πείτε πόσο προβληματικοί είναι αυτοί οι διαφορετικοί παράγοντες για τη λειτουργία και την ανάπτυξη της επιχείρησής σας/ επιχειρήσεων στο κλάδο σας:

(Δεν αποτελεί εμπόδιο: 1, Μικρό Εμπόδιο: 2, Μέτριο Εμπόδιο: 3, Σημαντικό Εμπόδιο: 4,

Δεν ξέρω -9)

α. Η πρόσβαση στη χρηματοδότηση (π.χ., εγγυήσεις που τυχόν απαιτούνται για χρηματόδοτηση, μη διαθέσιμη χρηματοδότηση από τις τράπεζες) 1 2 3 4 -9

β. Κόστος χρηματοδότησης (π.χ. τα επιτόκια και οι επιβαρύνσεις) 1 2 3 4 -9

γ. Τηλεπικοινωνίες 1 2 3 4 -9

δ. Ηλεκτρισμός 1 2 3 4 -9

ε. Μεταφορές 1 2 3 4 -9

στ. Το καθεστώς απόκτησης ή μίσθωσης ακινήτου 1 2 3 4 -9

ζ. Το ισχύον φορολογικό σύστημα 1 2 3 4 -9

η. Οι κανόνες που διέπουν το εμπόριο 1 2 3 4 -9

θ. Άδειες λειτουργίας επιχειρήσεων 1 2 3 4 -9

ι. Διαθεσιμότητα του κατάλληλα εκπαιδευμένου προσωπικού για την επιχείρησή σας 1 2 3 4 -9

κ. Συχνή αλλαγή νόμων και κανονισμών λειτουργίας (πχ αλλαγές στη φορολογητική πολιτική, κανονισμούς λειτουργίας επιχειρήσεων) 1 2 3 4 -9

λ. Οικονομική αστάθεια (πληθωρισμός, επιτόκια) 1 2 3 4 -9

μ. Λειτουργία της δικαιοσύνης 1 2 3 4 -9

ν. Διαφθορά 1 2 3 4 -9

ξ. Γραφειοκρατία 1 2 3 4 -9

ο. Εγκληματικότητα, κλοπές και διαταραχή της δημόσιας τάξης 1 2 3 4 -9

π. Οργανωμένο έγκλημα , βία 1 2 3 4 -9

ρ. Κοινωνική αναταραχή, απεργίες, διαδηλώσεις 1 2 3 4 -9

σ. Αθέμιτος ανταγωνισμός άλλων επιχειρήσεων του κλάδου σας 1 2 3 4 -9

τ. Αθέτηση συμβάσεων ή συμφωνιών από τους πελάτες ή τους προμηθευτές σας 1 2 3 4 -9

υ. Η σημερινή οικονομική κρίση στην Ελλάδα 1 2 3 4 -9

Άλλα εμπόδια που επηρεάζουν την επιχείρησή σας. Παρακαλώ διευκρινήστε

α. _____ 1 2 3 4 -9
β._____1 2 3 4 -9
γ. _____ 1 2 3 4 -9
δ. _____ 1 2 3 4 -9

13. Μπορείτε να μου πείτε πόσο προβληματικοί είναι αυτοί οι παράγοντες για τη λειτουργία και την ανάπτυξη της επιχείρησής σας/ επιχειρήσεων στο κλάδο σας:

(Δεν αποτελεί εμπόδιο: 1, Μικρό Εμπόδιο: 2, Μέτριο Εμπόδιο: 3, Σημαντικό Εμπόδιο: 4, Δεν ξέρω -9)

α. Συναρμοδιότητες υπουργείων και φορέων (αλληλοεπικαλύψεις). 1 2 3 4 -9

β. Έλλειψη συνεργασίας συναρμόδιων υπηρεσιών. 1 2 3 4 -9

γ. Παρεμβολή Επιμελητηρίων και επαγγελματικών συνδέσμων κυρίως για την είσπραξη μη ανταποδοτικών αμοιβών ή υποχρεωτική χρήση των υπηρεσιών τους. 1 2 3 4 -9

δ. Έλλειψη επαρκούς πληροφόρησης για τη λειτουργία ομοειδών επιχειρήσεων. 1 2 3 4 -9

ε. Έλλειψη μελέτης βιωσιμότητας πριν τη σύσταση της επιχείρησης και η συχνή επικαιροποίηση της. 1 2 3 4 -9

στ. Έλλειψη χωροταξικού σχεδιασμού. 1 2 3 4 -9

ζ. Πολυνομία. 1 2 3 4 -9

Άλλα εμπόδια που επηρεάζουν την επιχείρησή σας. Παρακαλώ διευκρινήστε

α. _____ 1 2 3 4 -9
β._____1 2 3 4 -9
γ. _____ 1 2 3 4 -9
δ. _____ 1 2 3 4 -9

14. Ποια από τα επιχειρηματικά εμπόδια, που απαντήσατε προηγουμένως, θεωρείται ότι συντελούν στην ανάπτυξη και τη διατήρηση της διαφθοράς;

15. Πώς θα αξιολογούσατε τη συχνότητα και το μέγεθος της διαφθοράς κατά τη διάρκεια της κρίσης, σε αντίθεση με τη διαφθορά πριν από την κρίση; Συγκεκριμένα πόσο συμφωνείτε με τις ακόλουθες δηλώσεις;»

(Διαφωνώ απόλυτα: 1, Διαφωνώ στις περισσότερες περιπτώσεις: 2, Τείνω να διαφωνώ:3, Τείνω να Συμφωνώ: 4 Συμφωνώ στις περισσότερες περιπτώσεις: 4 Συμφωνώ Απόλυτα: 5,

Δε ξέρω: -9)

α. «Η κρίση συντελεί στη διατήρηση της διαφθοράς» 1 2 3 4 5 -9

β. «Η κρίση έχει αυξήσει τη διαφθορά και τις άτυπες πληρωμές» 1 2 3 4 5 -9

γ. «Η κρίση έχει μειώσει το μέγεθος των άτυπων πληρωμών» 1 2 3 4 5 -9

δ. «Η κρίση έχει μειώσει τη διαφθορά συνολικά» 1 2 3 4 5 -9

ε. «Η κρίση συντελεί στην απόκρυψη ειδοσημάτων προς τις φορολογικές αρχές» 1 2 3 4 5 -9

στ. «Η κρίση συντελεί στην αύξηση της αδήλωτης εργασίας» 1 2 3 4 5 -9

ζ. «Η κρίση επηρέαζει άμεσα τη βιωσιμότητα της επιχείρησής μου» 1 2 3 4 5 -9

η. «Η διαφθορά θα μειωθεί μόνο αν η ανάπτυξη της χώρας καταστεί δυνατή» 1 2 3 4 5 -9

Επιπλέον Σχόλια

16. Χρησιμοποιεί η επιχείρησή σας οποιαδήποτε πλατφόρμα ηλεκτρονικής διακυβέρνησης (π.χ. ηλεκτρονική υποβολή φορολογικής δήλωσης, ηλεκτρονική υποβολή δικαιολογητικών για άδειες κ.ά.)

Ναι Όχι

17. Πόσο σημαντική είναι η ηλεκτρονική διακυβέρνηση για τη διευκόλυνση της λειτουργίας της επιχείρησης σας

(Δεν είναι σημαντικό: 1, Ελαφρώς σημαντικό: 2, Αρκετά σημαντικό: 3, Πολύ σημαντικό: 4, Εξαιρετικά σημαντικό: 5, δεν ξέρω: -9)

1 2 3 4 5 -9

18. Έχει υποστηριχθεί ότι η ηλεκτρονική διακυβέρνηση δύναται να περιορίσει τη διαφθορά καθώς περιορίζονται οι προσωπικές επαφές με το Δημόσιο. Πιστεύετε ότι η ηλεκτρονική διακυβέρνηση μειώνει τη διαφθορά και τις άτυπες πληρωμές ;

(Διαφωνώ απόλυτα: 1, Διαφωνώ στις περισσότερες περιπτώσεις: 2, Τείνω να διαφωνώ:3, Τείνω να Συμφωνώ: 4 Συμφωνώ στις περισσότερες περιπτώσεις: 5 Συμφωνώ Απόλυτα: 6,

Δε ξέρω: -9)

1 2 3 4 5 -9

Επιπλέον Σχόλια

19. Θεωρείτε ότι ο κλάδος σας είναι πιο επιρρεπής στη διαφθορά και τη γραφειοκρατία του κράτους και γιατί;

20. Ποιοι πιστεύετε ότι είναι οι τρόποι ενίσχυσης της διαφάνειας στο κλάδο σας;

21. Ποια θεωρείτε τα κύρια μέτρα για την ανάπτυξη της επιχείρησής σας;

Επιπλέον σχόλια ερευνόμενου

Table A1. BEEPS 2005 Summary table

*Main product/service line, description	Frequency	Sector Percentage
Accounting book-keeping auditing activities	8	35%
Activities of travel agencies, tour operators	1	20%
Advertising	2	100%
Agents involved sale of timber & building materials	1	50%
Agents involved in the sale of a variety	1	100%
Agents involved sale of furniture, household goods	1	100%
Bars	11	65%
Building and repairing of ships	1	50%
Business and management consultancy act	1	33%
Cargo handling	2	67%
Catering	1	100%
Construction of highways, roads, sport facilities	2	67%
Copper production	1	100%
Demolition and wrecking of buildings; earthmoving	2	50%
Freight transport by road	9	56%
Funeral and related activities	2	100%
General construction buildings & civil engineering	15	43%
Maintenance and repair of motor vehicle	6	50%
Other retail sale in specialized stores	8	53%
Restaurants	21	41%
Retail sale of clothing	11	48%
Total	**229**	**42%**

Table B1. Correlations between the different variables.

		Time : t-1								
	Corr (t)	Corr	E-gov	Online services	Telecom. infrastructure	Human capital	GDP pc	Natural resources	Open. trade	(ln) pop
Corr (t)	1.00									
Corr	0.99	1.00								
E-gov	0.76	0.77	1.00							
Online-services	0.64	0.65	0.91	1.00						
Telec. infrastructure	0.86	0.86	0.89	0.75	1.00					
Human capital	0.52	0.53	0.81	0.60	0.62	1.00				
GDP per capita	0.80	0.81	0.74	0.60	0.88	0.48	1.00			
Nat. resources	-0.30	-0.30	-0.19	-0.22	-0.20	-0.07	-0.07	1.00		
Op. trade	0.19	0.19	0.19	0.11	0.20	0.24	0.19	0.04	1.00	
(ln) pop	-0.20	-0.18	0.11	0.30	-0.01	-0.07	-0.06	0.04	-0.38	1.00

Note: Year (t)= 2004, 2005, 2006, 2009 and 2011.
Corruption is the control of corruption variable from the WB WGI.
Source: WB WDI, UN e-government dataset, WB WGI, and author's computations.

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