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Labour Market Discrimination: Experimental Evaluation and Theoretical Modeling

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Περίληψη Διατριβής

Η Ευρωπαϊκή Ένωση βασίζεται στις αρχές της ελευθερίας, της δημοκρατίας, του σεβασμού των ανθρωπίνων δικαιωμάτων και των θεμελιωδών ελευθεριών, καθώς και του κράτους δικαίου, αρχές οι οποίες είναι κοινές για όλα τα κράτη μέλη. Η Ευρωπαϊκή Ένωση σέβεται τα θεμελιώδη δικαιώματα, όπως κατοχυρώνονται με την ευρωπαϊκή σύμβαση για την προστασία των ανθρώπινων δικαιωμάτων και των θεμελιωδών ελευθεριών και όπως προκύπτουν από τις κοινές συνταγματικές παραδόσεις των κρατών μελών, ως γενικές αρχές του κοινοτικού δικαίου. Τα κράτη μέλη έχουν θεσπίσει νομοθεσίες που απαγορεύουν τις διακρίσεις σε όλες τις εκφάνσεις της κοινωνική ζωής, και έχουν συνυπογράψει συμβάσεις, εναρμονισμένες υπό την καθοδήγηση των Ηνωμένων Εθνών και του Συμβουλίου της Ευρώπης, καθένα από τα οποία απαγορεύει τις διακρίσεις. Η ισότητα υπαγορεύει την διασφάλιση των δικαιωμάτων και των ευκαιριών όλων των ανθρώπων και αποτελεί μια καίρια εγγύηση για την πραγμάτωση της κοινωνικής συνοχής (Green Paper [2004]).

Η θεσμική προστασία των πολιτών της Ευρώπης κατά των διακρίσεων ισχυροποιήθηκε με την υιοθέτηση και την εθνική ενσωμάτωση δύο Οδηγιών: Της Οδηγίας για την ″Ισότητα ένεκα Εθνικής Καταγωγής″ (Racial Equality Directives [2000/43/EC]), εφαρμόζοντας την αρχή της Ίσης Μεταχείρισης (Equal Treatment) ανεξαρτήτου εθνικότητας (ethnicity) και φυλής (race), και της Οδηγίας για την ″Ισότητα στην Απασχόληση″ (Employment Equality Directive [2000/78/EC]), εγκαθιδρύοντας ένα γενικό πλαίσιο για την ισότητα στην απασχόληση και στο επάγγελμα ένεκα φυλετικής ή εθνοτικής καταγωγής (ethnicity and race), θρησκείας (religion) ή πεποιθήσεων (beliefs), ηλικίας (age), αναπηρίας (disability) και γενετήσιου προσανατολισμού (sexual orientation).

Μολαταύτα και παρά τις συντονισμένες νομικές ενέργειες τα ετήσια Ευρωπαϊκά δεδομένα αποδεικνύουν ότι κάθε χρόνο οι πολίτες που ζουν στην Ευρώπη αντιμετωπίζουν διακρίσεις σε όλο το φάσμα της κοινωνικής τους ζωής (Makkonen [2007]). Οι διακρίσεις υπονομεύουν τα δικαιώματα των θυμάτων και αποτελούν τις πλέον καταγεγραμμένες μορφές καταπάτησης των ανθρώπινων δικαιωμάτων στην Ευρωπαϊκή Ένωση. Εν τούτοις λίγα είναι γνωστά για την φύση, τους λόγους, την έκταση, και τα αποτελέσματα του φαινομένου της διάκρισης.

Στόχος της παρούσας διατριβής είναι η εξέταση του φαινομένου της διάκρισης στην αγορά εργασίας μέσω στατιστικών και οικονομετρικών εξειδικεύσεων, και η θεμελίωση κατάλληλης οικονομικής πολιτικής μέσω υποδειγμάτων για την αποτίμηση των δύο Ευρωπαϊκών Οδηγιών. Οι διακρίσεις αποτελούν ένα πολύπλοκο κοινωνικό φαινόμενο που μπορεί να μελετηθεί μόνο μέσω της καταγραφής του. Η εξάλειψη των διακρίσεων απαιτεί σωστά σχεδιασμένες πολιτικές και όλες έχουν μια κοινή αφετηρία: την ύπαρξη εμπειρικών δεδομένων. Φαίνεται επομένως πως οι στατιστικές εξειδικεύσεις είναι απαραίτητες για την καθοδήγηση και για την χάραξη της οικονομικής πολιτικής, ενώ η αποτελεσματικότητα της βασίζεται στην ορθή θεμελίωση του φαινομένου.

Με άλλα λόγια, ο στόχος της παρούσας διατριβής είναι διττός. Να παράσχει αμερόληπτα εμπειρικά στοιχεία αναφορικά με τάσεις διάκρισης στην Ελληνική αγορά εργασίας, και να θεμελιώσει πως συγκεκριμένες στρατηγικές διάκρισης μπορούν να επιλυθούν αποτελεσματικά με την διαμεσολάβηση κοινωνικών σχεδιαστών υπό την καθοδήγηση των πορισμάτων των Ευρωπαϊκών Οδηγιών. Συγκεκριμένα, ο σκοπός της διατριβής είναι η εμπειρική μελέτη του φαινομένου της διάκρισης στην αγορά εργασίας ένεκα εθνικής καταγωγής (ethnicity) και γενετήσιου προσανατολισμού (sexual orientation) και η υποδειγματοποίηση (modeling) του φαινομένου της διάκριση των μισθών (wage discrimination) ανάμεσα σε πλειονοτικούς και μειονοτικούς εργάτες, υπό το πρίσμα των διαπραγματεύσεων των εργατικών σωματείων και των επιχειρήσεων με ολιγοπωλιακό χαρακτήρα (union – oligopoly bargaining).

Η κύρια συμβολή της διατριβής έγκειται στο γεγονός ότι συναφείς εμπειρικές μελέτες, κάνοντας χρήση εδραιωμένων πειραματικών μεθοδολογιών (experimental techniques, correspondence test), δεν έχουν εκπονηθεί ποτέ για την Ελλάδα. Οι παρούσες εμπειρικές εξειδικεύσεις συμβάλλουν σε δύο περιοχές που δεν έχουν απασχολήσει-προβληματίσει τις εθνικές δημόσιες αρχές, την έρευνα σχετικά με τις διακρίσεις στην απασχόληση και την πειραματική καταγραφή διακριτικών τάσεων ένεκα εθνικής καταγωγής και γενετήσιου προσανατολισμού.

Παράλληλα, η θεωρητική θεμελίωση του φαινομένου της διάκρισης εξειδικεύεται μέσω των διαπραγματεύσεων των εργατικών σωματείων και των επιχειρήσεων που βιβλιογραφικά δεν έχουν ξαναχρησιμοποιηθεί για την θεωρητική ερμηνεία του φαινομένου της διάκρισης των μισθών. Η παρούσα υποδειγματοποίηση αποτελεί την πρώτη προσπάθεια χάραξης οικονομικής πολιτικής υπό το πρίσμα των

δύο Ευρωπαϊκών Οδηγιών κατά των διακρίσεων. Ενώ, η υποδειγματοποίηση των οικονομικών πολιτικών για την αντιμετώπιση της διάκρισης των μισθών παρουσιάζει επιπρόσθετο ενδιαφέρον, αφού ζεύγος εναλλακτικών πολιτικών εξετάζονται με γνώμονα την αποτελεσματική επίλυση του φαινομένου (φόροι, επιδοτήσεις, πολιτικές εταιρικής κοινωνικής ευθύνης), και την εκτίμηση της μεταβολή της κοινωνικής ευημερίας (social welfare). Η θεωρητική εξειδίκευση στοχεύει στο να παράσχει χρήσιμα αποτελέσματα, καθώς και να σκιαγραφήσει τους τρόπους μέσω των οποίων μειονοτικές ομάδες δέχονται διακριτικές συμπεριφορές από τις επιχειρήσεις και τα εργατικά σωματεία δημιουργώντας την βάση για περαιτέρω μελέτη και εξειδίκευση του φαινομένου.

Η διατριβή δομείται ως εξής:

Στόχος του Πρώτου Κεφαλαίου, είναι η παρουσίαση των επικρατέστερων θεωρητικών υποδειγμάτων που έχουν προταθεί για την θεμελίωση του φαινόμενο της διάκρισης στην αγορά εργασίας (labour market discrimination). Το ζήτημα των διακρίσεων στη σύγχρονη οικονομική θεωρία αποτελεί ένα από τα πιο σοβαρά προβλήματα και έχει απασχολήσει πολλούς οικονομολόγους διαφορετικών Σχολών οικονομικής σκέψης. Η έννοια των διακρίσεων στην αγορά εργασίας τίθεται ως εξής: Γιατί και πως μία ομάδα εργαζομένων αντιμετωπίζεται διαφορετικά από το κύριο σώμα των εργαζομένων σε μία ανταγωνιστική αγορά εργασίας. Συγκεκριμένα, οι διακρίσεις στην αγορά εργασίας ορίζονται όταν ομάδες εργατών με ικανότητες, μόρφωση και εμπειρίες ίσες με άλλες ομάδες χαίρουν λιγότερο ευνοϊκών ευκαιριών στην πρόσληψη, στην προαγωγή και στους μισθούς στη βάση ορισμένων προσωπικών ή/και δημογραφικών χαρακτηριστικών πάντοτε μη συναφών με το επίπεδο παραγωγικότητας τους (D' Amico [1987]).

Η μελέτη των διακρίσεων στην αγορά εργασίας είναι δημοφιλής τις τελευταίες δεκαετίες. Όμως, για την ανάλυση του φαινόμενου της διάκρισης είναι πολύ σημαντική η κατανόηση της φύσης της διάκρισης και των εκφάνσεων που συνεπάγεται. Οι θεωρητικές βάσεις για την κατανόηση του φαινομένου αναζητούνται στην θεωρία προτίμησης διακρίσεων (Taste discrimination theory, Becker [1957]; [1972]), και στην στατιστική θεωρία διακρίσεων (Statistical theory of discrimination, Arrow [1972]).

Σύμφωνα με τον Becker (1957) οι προτιμήσεις για διάκριση οφείλονται στις προκαταλήψεις και στην αποστροφή των εργοδοτών, των λοιπών εργατών και των πελατών των επιχειρήσεων εναντίον μειονοτικών εργατών, ενώ η έκταση της

διάκρισης εξαρτάται από τον βαθμό προκατάληψής τους. Ο Becker αντί να υποθέσει ότι οι εργοδότες αξιολογούν μόνο την παραγωγικότητα των εργατών, και ότι οι πελάτες ενδιαφέρονται μόνο για την ποιότητα των αγαθών και των υπηρεσιών που παρέχουν οι επιχειρήσεις, ο συντελεστής διάκρισης (discrimination factor) επηρεάζεται από την εθνικότητα, το φύλο, τον γενετήσιο προσανατολισμό και άλλα δημογραφικά ή/και προσωπικά χαρακτηριστικά των εργατών.

Η παρούσα θεωρία βασίζεται στην έννοια της ροπής για διάκριση. Η έννοια αυτή ουσιαστικά μεταφράζει την ιδέα της προκατάληψης στη γλώσσα των οικονομικών. Έτσι λοιπόν, αν ένας εργοδότης είναι προκατειλημμένος με μειονοτικούς εργαζόμενους, τότε η πρόσληψη ενός από αυτούς θα μειώσει την ωφέλεια του. Σύμφωνα με τον Becker, εάν ο εργοδότης έχει προτιμήσεις για διάκριση συμπεριφέρεται σαν να είναι διατεθειμένος να πληρώσει κάτι παραπάνω, έτσι ώστε να προσλαμβάνει ορισμένους εργάτες έναντι άλλων. Οι πλειονοτικοί εργάτες, με την σειρά τους, είναι διατεθειμένοι να θυσιάσουν μισθούς για να αποφύγουν μειονοτικούς εργάτες, και οι καταναλωτές είναι διατεθειμένοι να πληρώσουν περισσότερο για να αποφύγουν συναλλαγές με μειονοτικούς εργάτες. Ο Becker χρησιμοποιώντας αυτή την προσέγγιση προσπαθεί να εξηγήσει τις διαφορές στους μισθούς ανάμεσα σε δύο ομάδες εργαζομένων που ενώ είναι εξίσου παραγωγικοί οι εργοδότες προτιμούν την μία ομάδα από την άλλη. Ενώ η ομάδα που προτιμάται συστηματικά χαίρει ευνοϊκότερων όρων εργασίας.

Ο συντελεστής διάκρισης δίνει την ποσοστιαία ανατίμηση του κόστους για την πρόσληψη ενός μειονοτικού εργαζόμενου, η οποία οφείλεται στην προκατάληψη του εργοδότη. Όσο μεγαλύτερη είναι η προκατάληψη, τόσο μεγαλύτερη είναι και η απώλεια ωφέλειας από την πρόσληψη του μειονοτικού εργαζομένου και τόσο μεγαλύτερος είναι ο συντελεστής διάκρισης. Επομένως, η θεωρία του Becker υπολογίζεται σε όρους του πόσο λιγότερο πληρώνουν οι εργοδότες τα μέλη αυτών των μειονοτικών ομάδων από ότι πληρώνουν τους άλλους εργαζόμενους που δεν ανήκουν σε αυτές.

Μια σημαντική προέκταση και θεμελίωση αναφορικά με την θεωρία της προτίμησης αποτελεί η στατιστική θεωρία διακρίσεων του Arrow (1972), η οποία βασίζεται στην δυναμική των στερεοτύπων. Η ανάλυση αυτή υποθέτει ότι τα πιστεύω και η πληροφόρηση των εργοδοτών σχετικά με την παραγωγικότητα των μειονοτικών ομάδων ευθύνονται για τις διακριτικές συμπεριφορές. Εάν οι εργοδότες υποθέτουν ότι οι μειονοτικοί εργάτες είναι λιγότερο παραγωγικοί, και η εξακρίβωση του

πραγματικού επιπέδου της παραγωγικότητας των μειονοτικών, συνεπάγεται επιπλέον κόστος για την επιχείρηση, οι εργοδότες είναι διατεθειμένοι να χρησιμοποιήσουν τα δημογραφικά και τα προσωπικά χαρακτηριστικά των εργατών για να αποφανθούν για το επίπεδο παραγωγικότητας τους. Ουσιαστικά στο υπόδειγμα του Becker προστίθεται ο παράγοντας ″κόστος πληροφόρησης″ για την διαπίστωση της παραγωγικότητα του κάθε εργαζόμενου. Όμως, ένεκα του ότι οι εργοδότες επιθυμούν να διατηρούν το κόστος των επιχειρήσεων σε ελάχιστο επίπεδο, κρίνουν ορθολογικό να βασίζονται σε στερεότυπα που αφορούν την παραγωγικότητα ατόμων που ανήκουν σε διάφορες πληθυσμιακές ομάδες. Λόγω αυτών των στερεοτύπων η επιλογή των εργατών γίνεται μέσω των δημογραφικών χαρακτηριστικών τους.

Αναλυτικότερα, σε μία αγορά με ατελή πληροφόρηση οι εργοδότες βρίσκουν προς το συμφέρον τους να χρησιμοποιήσουν δημογραφικά χαρακτηριστικά, π.χ. εθνικότητα, γένος, γενετήσιο προσανατολισμό για να αξιολογήσουν τους εργάτες. Εάν οι εργοδότες πιστεύουν ότι υπάρχει συστηματική παραγωγική διαφορά μεταξύ π.χ. της εθνικότητας, αυτό το χαρακτηριστικό αποτελεί κριτήριο για την διάκριση των όρων εργασίας ανά των εργατών. Στην περίπτωση της στατιστικής θεωρίας των διακρίσεων εν αντίθεση με την θεωρία της προτίμησης διακρίσεων, οι εργοδότες πράττουν διάκριση εναντίον των μειονοτικών ομάδων όχι ένεκα αποστροφής, αλλά διότι πιστεύουν ότι οι μειονοτικοί είναι λιγότερο παραγωγικοί και κερδοφόροι.

Με την διατύπωση των θεωριών της διάκρισης από τον Becker και τον Arrow, οι οικονομολόγοι θεμελίωσαν τεχνικές για να ελέγξουν όσον τον δυνατό αμερόληπτα τις υποθέσεις της διάκρισης. Στο Δεύτερο Κεφάλαιο, εισαγάγουμε και αναλύουμε την πλέον ενδεδειγμένη μεθοδολογία που έχει προταθεί για την καταγραφή διακριτικών τάσεων: Τα πειράματα πεδίου (field experiments). Τα πειράματα πεδίου χρησιμοποιούνται παραπάνω από σαράντα έτη από κοινωνικούς επιστήμονες από Πανεπιστήμια της Ευρώπης, της Αμερικής και της Αυστραλίας για την κατανόηση της φύσης του φαινόμενου της διάκρισης και για την χάραξη πολιτικής (Riach and Rich [2002]).

Η μεθοδολογία της πειραματικής τεχνικής συνεπάγεται την προσομοίωση ή προσποίηση της επικοινωνίας μεταξύ εργοδοτών και εργατών (correspondence testing) κατά το στάδιο της ανεύρεσης εργασίας. Μεθοδολογικά, οι ερευνητές μετουσιώνονται σε εργάτες, μειονοτικούς και πλειονοτικούς, και καταγράφουν τις πραγματικές συνθήκες που αντιμετωπίζουν οι εργάτες κατά το στάδιο της πρόσληψης

(hiring step). Η διαπίστωση τάσης για διάκριση στο στάδιο της ανεύρεσης εργασίας είναι μεγίστης σημασίας. Η αμερόληπτη όμως εκτίμηση του μεγέθους της διάκρισης είναι αδύνατη με τις συμβατικές μεθοδολογίες (ερωτηματολόγια). Τα πειράματα πεδίου παρέχουν την δυνατότητα για την εκτίμηση της τάσεως αυτής.

Ένα τυπικό πείραμα συνίσταται στην αποστολή δυο βιογραφικών σημειωμάτων, ίσων παραγωγικά εργατών, στην ίδια επιχείρηση. Η μόνη διαφορά ανάμεσα στις δύο επιστολές έγκειται σε κάποιο δημογραφικό ή άλλο μη παραγωγικό χαρακτηριστικό π.χ. εθνική καταγωγή. Οι εργοδότες με την σειρά τους έρχονται σε επικοινωνία με τους ενδιαφερόμενους και οι εργάτες/ερευνητές προσπαθούν να ενημερωθούν για τις παροχές τους. Έχοντας σταθμίσει όλους εκείνους τους παράγοντες που συνηγορούν σε παραγωγικές ασυμμετρίες η διαφορά στις τηλεφωνικές ανταποκρίσεις, η διαφορά στις παροχές δεν μπορεί παρά να αποδοθεί σε μεροληψίες από την μεριά των εργοδοτών. Τα πειράματα πεδίου φαίνεται να παρέχουν τον πλήρη έλεγχο αναφορικά με την καταγραφή διακριτικών τάσεων, καθώς ελαχιστοποιούνται οι περιπτώσεις εσφαλμένης διαπίστωσης μεροληψίας αφού παραγωγικές ασυμμετρίες μεταξύ των εργατών δεν υφίστανται.

Στο Τρίτο Κεφάλαιο, εισάγουμε τις δυο Ευρωπαϊκές Οδηγίες. Στόχος του κεφαλαίου αυτού είναι η κατανόηση της φύσης των Οδηγιών, καθώς οι εμπειρικές και οι θεωρητικές μελέτες που έπονται εξειδικεύονται στη βάση των πορισμάτων των Οδηγιών. Το 13^{ο} άρθρο της Συνθήκης του Άμστερνταμ που συμπεριλήφθηκε στην Συνθήκης της Ευρωπαϊκής Κοινότητας, την ενδυνάμωσε να αντιμετωπίσει το φαινόμενο της διάκρισης. Αποτέλεσμα της όλης διαδικασίας ήταν η ομόφωνη έγκριση από το Συμβούλιο το 2000, δυο οδηγιών: Της Οδηγίας για την ″Ισότητα ένεκα Εθνικής Καταγωγής″ (Racial Equality Directives [2000/43/EC]) και της Οδηγίας για την ″Ισότητα στην Απασχόληση″ (Employment Equality Directive [2000/78/EC]), με στόχο να διασφαλιστεί ότι όλοι οι κάτοικοι της Ευρωπαϊκής Ένωσης μπορούν να χαίρουν αποτελεσματικής νομικής προστασίας από τις διακρίσεις.

Η πρώτη Οδηγία απαγορεύει τις διακρίσεις ένεκα εθνικής και φυλετικής καταγωγής στα πεδία της εργασίας, της απασχόλησης, της εκπαίδευσης, της κοινωνικής προστασίας, της παροχής αγαθών και υπηρεσιών, και της στέγαση. Η δεύτερη Οδηγία απαγορεύει τις διακρίσεις λόγω φυλετικής ή εθνοτικής καταγωγής, θρησκείας ή πεποιθήσεων, ηλικίας, αναπηρίας και γενετήσιου προσανατολισμού.

Οι δύο Οδηγίες αύξησαν σημαντικά το επίπεδο της προστασίας ένεκα των διακρίσεων στην Ευρωπαϊκή Ένωση. Σε πολιτικό επίπεδο, ο στόχος του υψηλού ποσοστού εργασίας, η προώθηση της κοινωνικής συνοχής, και η δημιουργία κλίματος ασφάλειας, ελευθερίας και δικαιοσύνης έχουν γίνει στόχοι πρώτης προτεραιότητας. Σήμερα η θεσμική δέσμευση στον αγώνα κατά των διακρίσεων είναι πιο έντονος παρά ποτέ (Green Paper [2004]).

Στο Τέταρτο Κεφάλαιο, λαμβάνοντας υπόψη την εθνική υιοθέτηση των Ευρωπαϊκών Οδηγιών κατά των διακρίσεων (Αρχή της Ίσης Μεταχείρισης [2005/3304]), και θέλοντας να εξετάσουμε το κατά πόσο οι θεωρητικές προσεγγίσεις του φαινομένου της διάκρισης (Becker [1957], Arrow [1972]) επαληθεύονται, το ζητούμενο προς εξέταση είναι το κατά πόσο εθνικοί εργάτες, συγκεκριμένα Αλβανοί μετανάστες, απολαμβάνουν πλήρη ελευθερία και αμερόληπτες απολαβές κατά την είσοδό τους στην αγορά εργασίας. Συγκεκριμένα, η ανυπαρξία οικονομικών μελετών για την καταγραφή διακριτικών τάσεων στην Ελληνική αγορά εργασίας και η πεποίθηση μας ότι η δυναμική των πανεπιστημιακών πονημάτων μπορεί να συμβάλλει στην έναρξη γόνιμου διαλόγου, μας ώθησε στην διεξαγωγή εκτεταμένης μελέτης υιοθετώντας την πλέον αμερόληπτη μεθοδολογία των πειραμάτων πεδίου.

Σε όλα τα κράτη μέλη της Ευρώπης οι μετανάστες διαμαρτύρονται ότι υφίστανται ρατσιστικές συμπεριφορές και είναι θύματα διακρίσεων στην αγορά εργασίας. Ενώ, οι διακρίσεις στην αγορά εργασίας θεωρούνται σαν την πλέον συνήθη καταπάτηση των ανθρώπινων δικαιωμάτων στην Ευρώπη (Makkonen [2007]). Οι μετανάστες υποστηρίζουν ότι τα εμπόδια κατά την είσοδό τους στην αγορά εργασία είναι τεράστια, και παράλληλα οι διακρίσεις στους μισθούς, στις απολαβές και στις προαγωγές είναι παραπάνω από αισθητές (OECD [2007]). Κάθε καινούργιο κύμα μεταναστών θεωρείται σαν νέα πηγή εγκληματικότητας, απρονοησίας και εν δυνάμει κινδύνου (EUAFR [2007]). Παρόλα αυτά η μάχη κατά των διακρίσεων είναι τεράστιας σημασίας για τους Ευρωπαίους κοινωνικούς σχεδιαστές, ιδιαίτερα μετά το τέλος του Κομμουνισμού και της έναρξης της μετανάστευσης.

Στην Ελλάδα, συγκεκριμένα, οι διακρίσεις ένεκα εθνικής καταγωγής δεν αποτελούσαν μείζων κοινωνικό πρόβλημα έως ότου η χώρα μετατράπηκε σε χώρα υποδοχής μεταναστών, κυριαρχούμενη δε από Αλβανούς μετανάστες. Για την Ελλάδα η πρόσφατη ιστορία είχε δημιουργήσει φόβο για τους Αλβανούς τόσο για λόγους εθνικής ασφάλειας όσο και για τον ρόλο τους στην Ελληνική πολιτική (Baldwin-Edwards [2004]). Όμως η Ελληνική αγορά εργασίας αναζητώντας φθηνά

εργατικά χέρια, επέτρεψε στους Αλβανούς να βρουν εργασία ανεξαρτήτως μορφωτικού επιπέδου και δεξιοτεχνιών (OECD [2007]).

Στόχος της παρούσας μελέτης είναι η εξέταση της αγοράς εργασίας της νέας γενιάς των Αλβανών, δηλαδή νέων που γύρω στο 1990 ήρθαν στην Ελλάδα, τελείωσαν ελληνικά σχολεία, και αναζητούν εργασία στο παρόν. Υιοθετώντας την μεθοδολογία των πειραμάτων πεδίου (correspondence test) η μελέτη πραγματώθηκε από τον Μάιο του 2006 μέχρι και τον Ιανουάριο του 2007, και απευθυνθήκαμε σε 789 επιχειρήσεις στην Αθήνα για ανεύρεση εργασίας. Στην παρούσα έρευνα βρήκαμε σκόπιμο να επικεντρωθούμε σε ένα από τα αρχικά στάδια της ανευρέσεως εργασίας, καταγράφοντας αμερόληπτα τις αντιδράσεις και τις συμπεριφορές των επιχειρήσεων αναφορικά με την εθνικότητα των εργατών. Μεθοδολογικά δημιουργήσαμε δύο εξίσου παραγωγικούς εργάτες, Έλληνες και Αλβανούς, οι οποίοι προωθούσαν τα βιογραφικά τους (curriculum vitaes) σε επιχειρήσεις. Ο Αλβανός εργάτης σηματοδοτήθηκε μέσω του χαρακτηριστικού του ονόματος και της εθνικής αναφοράς του που αναγράφονταν στο βιογραφικό του (Riach and Rich [2002]). Στην παρούσα έρευνα επικεντρωθήκαμε σε νέους μη ειδικευμένους άνδρες απόφοιτους λυκείου, έχοντες εννέα έτη προϋπηρεσία. Η επιλογή αυτή κρίθηκε απαραίτητη διότι σύμφωνα με το Ευρωβαρόμετρο (2007/263), νέοι μη-ειδικευμένοι εργάτες αποτελούν την πλέον ευάλωτη ομάδα που δέχεται διακρίσεις στην αγορά εργασίας.

Σύμφωνα με τα αποτελέσματα οι Αλβανοί αιτούντες, παρότι είναι εξίσου παραγωγικοί με τους Έλληνες αντιμετωπίζουν 0.214 λιγότερες πιθανότητες να εισέλθουν στην αγορά εργασίας. Αναλυτικότερα τα σημαντικότερα εμπόδια εισόδου συναντώνται στις δουλείες γραφείου, όπου οι Αλβανοί αιτούντες αντιμετωπίζουν 0.375 λιγότερες πιθανότητες να κληθούν για συνέντευξη και γνωριμία με τον εργοδότη σε σχέση με τους Έλληνες. Στον κλάδο των πωλήσεων οι Αλβανοί αντιμετωπίζουν 0.246 λιγότερες πιθανότητες, στις βιομηχανίες 0.161 λιγότερες πιθανότητες, και τέλος στα εστιατόρια-καφετέριες 0.124 λιγότερες πιθανότητες σε σχέση με τους Έλληνες.

Επομένως, φαίνεται πως οι ημεδαποί εργοδότες σταθμίζουν μεροληπτικά τους Αλβανούς εργάτες, επομένως η εθνική καταγωγή διαδραματίζει στατιστικά σημαντικό ρόλο κατά την είσοδο τους στην αγορά εργασίας. Οι νέες γενιές των Αλβανών πρέπει να καταβάλουν επιπλέον κόπο, να δαπανήσουν περισσότερο χρόνο και πόρους, σε σχέση με τους ίσους παραγωγικά Έλληνες. Ακόμη, παρά τις γενικές νόρμες που προστάζουν οι αλλοδαποί εργάτες να χαίρουν συγκριτικού

πλεονεκτήματος στις μη ειδικευμένες θέσεις εργασίας τα αποτελέσματα μας συνηγορούν στο αντίθετο. Οι Αλβανοί ούτε στις βιομηχανίες ούτε και στα εστιατόρια-καφετέριες προτιμούνται συστηματικά.

Σχετικά με την παροχή ασφάλισης οι εκτιμήσεις φανερώνουν ότι οι Αλβανοί αντιμετωπίζουν 0.257 λιγότερες πιθανότητες σε σχέση με τους Έλληνες να εγγράφουν άμεσα στο ΙΚΑ σαν απόρροια μιας πιθανούς πρόσληψης. Αναλυτικότερα, στα εστιατόρια και στις καφετέριες οι Αλβανοί αντιμετωπίζουν 0.296 λιγότερες πιθανότητες, στις δουλείες γραφείου 0.273 λιγότερες πιθανότητες, στις βιομηχανίες 0.228 λιγότερες πιθανότητες, και τέλος στον κλάδο των πωλήσεων 0.188 λιγότερες πιθανότητες σε σχέση με τους Έλληνες.

Αναφορικά με τους μισθούς οι Αλβανοί αντιμετωπίζουν μηνιαίες αποδοχές 0.110 χαμηλότερες από εκείνες των Ελλήνων συνολικά. Το εθνικό πρόστιμο (ethnic penalty) για τους Αλβανούς είναι της τάξεως των 73€, το οποίο αποτελεί στατιστικά σημαντική διαφορά. Το υψηλότερο εθνικό penalty εμφανίζεται στις δουλείες γραφείου στα 95€, όπου συνεπάγεται 0.131 χαμηλότερες αποδοχές σε σχέση με εκείνες των Ελλήνων. Στις βιομηχανίες το εθνικό penalty είναι 75€, δηλαδή 0.110 χαμηλότερες αποδοχές. Στον κλάδο των πωλήσεων το εθνικό penalty είναι 57€, δηλαδή 0.090 χαμηλότερες αποδοχές, ενώ στα εστιατόρια το εθνικό penalty είναι 29€, δηλαδή 0.050 χαμηλότερες αποδοχές σε σχέση με εκείνες των Ελλήνων.

Συμπερασματικά, στην παρούσα εργασία μας εδόθη η δυνατότητα να καταγράψουμε αληθινούς εργοδότες οποτεδήποτε μερολήπτησαν εις βάρος Αλβανών αιτούντων εργασίας. Όπως εκτιμήσαμε οι ημεδαποί χαίρουν τα πλεονεκτήματα της θέσης τους ενώ οι μετανάστες δέχονται τις ποικιλόμορφες εκφάνσεις της διάκρισης. Η παρούσα εργασία συμβάλλει σε δύο περιοχές που δεν έχουν απασχολήσει-προβληματίσει τις εθνικές δημόσιες αρχές, την έρευνα σχετικά με τις διακρίσεις στην απασχόληση και την πειραματική καταγραφή διακριτικών τάσεων ένεκα εθνικής καταγωγής.

Η δυναμική της παρούσας διατριβής έγκειται στο γεγονός ότι κάνει χρήση μίας πειραματικής τεχνικής εφαρμοσμένης για την καταγραφή διακριτικών τάσεων εξετάζοντας αμερόληπτα την σχέση μεταξύ εργοδότη και εργάτη. Κυριολεκτικά η παρούσα μελέτη κατέγραψε έπ' αυτοφώρω τις επιχειρήσεις όταν μερολήπτησαν εις βάρος εθνικών μειονοτήτων. Οι εκτιμήσεις υποδηλώνουν την ανάγκη να εξεταστεί η επίδραση της εθνικότητας στους όρους πρόσληψης και ευρύτερα σε όλες τις εκφάνσεις της κοινωνικής ζωής των εθνικών μειονοτήτων στην Ελλάδα.

Στο Πέμπτο Κεφάλαιο, παρουσιάζουμε την μεθοδολογία και τα αποτελέσματα του δεύτερου εμπειρικού πονήματος αναφορικά με τις διακρίσεις ένεκα γενετήσιου προσανατολισμού στην Ελληνική αγορά εργασίας. Την τελευταία δεκαετία παρατηρείται παγκοσμίως μια θεσμική τάση για την διασφάλιση των πολιτών με ομόφυλο γενετήσιο προσανατολισμό από τις διακρίσεις που υφίστανται στο επαγγελματικό τους περιβάλλον (Green Paper [2004]). Συγκεκριμένα, άνδρες με ομόφυλο γενετήσιο προσανατολισμό επανειλημμένα επισημαίνουν ότι απολύονται, δεν προσλαμβάνονται, ή δεν προάγονται στον εργασιακό τους χώρο (Mason and Palmer [1996], Colvin [2004]) ενώ ο γενετήσιος προσανατολισμός τους εκτιμάται να επιδρά αρνητικά στο εισόδημά τους (Badgett [1995], Carpenter [2005,2007], Arabsheibani, Mani and Wadsworth [2004], Plug and Berkhout [2004]).

Ορμώμενοι από την έλλειψη σχετικού ερευνητικού πονήματος από την σκοπιά της οικονομικής επιστήμης στην Ελλάδα, διεξάγαμε το πρώτο συναφές πείραμα πεδίου, που έχει εκπονηθεί από Ευρωπαϊκό Πανεπιστήμιο, με στόχο την καταγραφή και μελέτη των όρων πρόσβασης ανδρών με ομόφυλο γενετήσιο προσανατολισμό στην Ελληνική αγορά. Η μελέτη διεξήχθη από τον Δεκέμβριο του 2006 μέχρι και τον Σεπτέμβριο του 2007, και απευθυνθήκαμε σε 1714 επιχειρήσεις στην Αθήνα, ενώ η δημογραφική ομάδα περιορίστηκε σε μη-ειδικευμένους νέους άνδρες.

Μεθοδολογικά, δημιουργήσαμε δυο εξίσου παραγωγικούς εργάτες, σταθμίζοντας τα παραγωγικά τους χαρακτηριστικά. Ο άνδρας με ομόφυλο γενετήσιο προσανατολισμό σηματοδοτήθηκε, μέσω της αναφοράς στο βιογραφικό του, που έκανε λόγο για παρελθούσα εθελοντική εργασία σε ομοφυλοφιλική κοινότητα (Adam [1981], Weichselbaumer [2003]). Η μεθοδολογία υποστηρίζει ότι η αναφορά σηματοδοτεί αποτελεσματικά τον γενετήσιο προσανατολισμό του αιτούντα (Makkonen [2007]).

Στην παρούσα μελέτη το ζητούμενο προς εξέταση ήταν το κατά πόσο η σηματοδότηση αυτή θα οδηγήσει σε μεροληπτικότητες από την μεριά των εργοδοτών. Κοινωνικές έρευνες φανερώνουν ότι οι άνδρες με ομόφυλο γενετήσιο προσανατολισμό προσπαθούν να αποφύγουν τις διακρίσεις στην αγορά εργασίας ζώντας διπλή ζωή (dual life) (Levine and Leonard [1984]). Στην εργασία τους σηματοδοτούνται ως ετεροφυλόφιλοι ενώ εκτός εργασιακού περιβάλλοντος ως ομοφυλόφιλοι (Pharr [1988], Byrne [1993]).

Σύμφωνα με τα αποτελέσματα της παρούσας έρευνας ο σηματοδοτούμενος εργάτης με ομόφυλο γενετήσιο προσανατολισμό αντιμετωπίζει 0.261 λιγότερες πιθανότητες να κληθεί για συνέντευξη και γνωριμία με τον υπεύθυνο από ότι ο ετεροφυλόφιλος αιτών. Αναλυτικότερα, στις δουλείες γραφείου ο άνδρας με ομόφυλο γενετήσιο προσανατολισμό αντιμετωπίζει 0.304 λιγότερες πιθανότητες, στον κλάδο των πωλήσεων 0.289 λιγότερες πιθανότητες, στις βιομηχανίες 0.248 λιγότερες πιθανότητες και τέλος στα εστιατόρια και στις καφετέριες 0.211 λιγότερες πιθανότητες από ότι ο ετεροφυλόφιλος αιτών να κληθεί για συνέντευξη. Όλα τα αποτελέσματα είναι στατιστικά σημαντικά.

Αναφορικά με τις διακρίσεις στους μισθούς, οι εκτιμήσεις φανερώνουν μεροληπτικές αλλά στατιστικά ασήμαντες διαφορές. Στο σύνολο η διάκριση είναι της τάξεως των 18€. Εν ολίγοις, ο αιτών με ομόφυλο γενετήσιο προσανατολισμό αντιμετωπίζει μέσω μισθό 0.026 χαμηλότερο σε σχέση με εκείνο που αντιμετωπίζει ο ετεροφυλόφιλος. Ανά κλάδο οι διαφορές είναι στατιστικά ασήμαντες.

Παράλληλα η μελέτη φανέρωσε ότι το φύλο των εργοδοτών διαδραματίζει σημαντικό ρόλο στις μεροληψίες. Αν οι εργοδότες είναι άνδρες τότε ο αιτών με ομόφυλο γενετήσιο προσανατολισμό αντιμετωπίζει 0.350 λιγότερες πιθανότητες να κληθεί για συνέντευξη. Ένα στατιστικά σημαντικό αποτέλεσμα. Ακόμη αν οι εργοδότες είναι άνδρες τότε ο αιτών με ομόφυλο γενετήσιο προσανατολισμό αντιμετωπίζει 0.032 χαμηλότερο μισθό από εκείνο του ετεροφυλόφιλου, ενώ αν οι εργοδότες είναι γυναίκες τότε αντιμετωπίζει 0.006 υψηλότερο μισθό. Στατιστικά ασήμαντα αποτέλεσμα και τα δύο. Συμπερασματικά, οι εκτιμήσεις φανερώνουν ότι οι άνδρες εργοδότες είναι πιο διστακτικοί στις αντιδράσεις τους αναφορικά με τον γενετήσιο προσανατολισμό των υποψηφίων εργατών.

Η παρούσα στατιστική στοχεύει να παράσχει χρήσιμα αποτελέσματα, καθώς και να σκιαγραφήσει τους τρόπους μέσω των οποίων μειονοτικές ομάδες δέχονται διακριτικές συμπεριφορές από τις επιχειρήσεις. Τα αποτελέσματα της μελέτης προσφέρουν το έναυσμα για την έναρξη κοινωνικού και πολιτικού προβληματισμού.

Συνεχίζοντας, και έχοντας στα προηγούμενα κεφάλαια αναλύσει τις πλέον εδραιωμένες θεωρίες που έχουν προταθεί για την θεμελίωση του φαινομένου της διάκρισης στην αγορά εργασία, έχοντας εξετάσει τις Ευρωπαϊκές Οδηγίες κατά των διακρίσεων, και έχοντας παρουσιάσει τα αποτελέσματα των εμπειρικών μελετών, στα επόμενα κεφάλαια παρουσιάζουμε την θεωρητική συμβολή της διατριβής.

Η θεωρητική θεμελίωση του φαινομένου της διάκρισης εξειδικεύεται μέσω των διαπραγματεύσεων των εργατικών σωματείων και των επιχειρήσεων που βιβλιογραφικά δεν έχουν ξαναχρησιμοποιηθεί για την θεωρητική ερμηνεία του φαινομένου της διάκρισης των μισθών. Ενώ, η παρούσα υποδειγματοποίηση αποτελεί την πρώτη προσπάθεια χάραξης οικονομικής πολιτικής υπό το πρίσμα των δύο Ευρωπαϊκών Οδηγιών κατά των διακρίσεων.

Όπως εξετάσαμε οι θεωρητικές προσεγγίσεις του φαινομένου της διάκρισης έχουν τις ρίζες τους στην θεωρία προτίμησης διακρίσεων, και στην στατιστική θεωρία των διακρίσεων. Στο Έκτο Κεφάλαιο η υποδειγματοποίηση που υιοθετούμε δεν ενστερνίζεται καμία από τις δύο προσεγγίσεις. Οι εργοδότες ούτε επιθυμούν να ελαχιστοποιήσουν τις επαφές τους με τους μειονοτικούς εργάτες, ούτε μεροληπτούν όταν πρέπει να γνωμοδοτήσουν για το επίπεδο παραγωγικότητας των μειονοτικών εργατών. Στην παρούσα μελέτη και κάτω από καλά ορισμένες υποθέσεις σχετικά με τις συναρτήσεις ευημερίας των εργατικών σωματείων (union-oligopoly-decentralized-bargaining) αποδεικνύουμε ότι στην ισορροπία διακριτικοί μισθοί εναντίον μειονοτικών εργαζομένων θα επιλεχθούν από τα εργατικά σωματεία και από τις επιχειρήσεις. Για το παραπάνω αποτέλεσμα τέσσερις υποθέσεις είναι απαραίτητες:

Πρώτον, τα εργατικά σωματεία αποτελούνται από δύο εξίσου παραγωγικές ομάδες εργατών: Τους πλειονοτικούς και από τους μειονοτικούς.

Δεύτερον, οι εργάτες διαφοροποιούνται με βάση τον μισθό επιφυλακής τους (reservation wage). Αναλυτικότερα, οι μειονοτικοί εργάτες, π.χ. μετανάστες, μακροχρόνια άνεργοι, εργάτες μεγαλύτερης ηλικίας, υποθέτουμε ότι αντιμετωπίζουν χαμηλότερο ευκαιριακό κόστος εργασίας (opportunity cost of employment) σε σχέση με τους πλειονοτικούς. Συγκεκριμένα, οι μειονοτικοί εργάτες προκείμενου να βρουν εργασία ίσως είναι διατεθειμένοι να αποδεκτούν μισθούς χαμηλότερους ακόμα και από τα επιδόματα ανεργίας. Παράλληλα, οι ομάδες αυτές ίσως δεν δύνανται να απολαμβάνουν τα επιδόματα ανεργίας (unemployment benefits). Ενώ, δοθέντος των μεταναστευτικών ρευμάτων που γνωρίζει η Ευρώπη τις τελευταίες δεκαετίες είναι απίθανο οι μισθοί επιφυλακής μεταξύ των ημεδαπών και των αλλοδαπών εργατών να είναι ομοιόμορφοι ακόμα και σε επίπεδο επιχείρησης.

Τρίτον, κάθε επιχείρηση διαπραγματεύεται με το αντίστοιχο σωματείο της για το επίπεδο του μισθού. Άλλωστε, οι υποθέσεις των αποκεντρωτικών διαπραγματεύσεων συναντώνται στην Ευρώπη (Hartog and Theeuwes [1992]).

Τέταρτον, η διαπραγματευτική δύναμη των εργατικών σωματείων πρέπει να είναι ιδιαίτερα υψηλή (bargaining power).

Εν συνεχεία, υπό το πρίσμα της πλήρους διαπραγματευτικής δύναμης των εργατικών σωματείων (monopoly union) αποδεικνύουμε ότι οι διακρίσεις των μισθών μπορούν να εξαλειφθούν αποτελεσματικά υπό την καθοδήγηση του κοινωνικού σχεδιαστή. Ο κοινωνικός σχεδιαστής (social planner) μπορεί να εξαγγείλει πρόστιμα-φόρους (fines-taxes) κατά των επιχειρήσεων που πράττουν διακρίσεις στους μισθούς. Όπως αποδεικνύουμε ενώ η πολιτική αυτή οδηγεί στην εξάλειψη του φαινομένου, συνεπάγεται κόστος για την κοινωνική ευημερία (welfare loss). Αντίθετα, εάν ο κοινωνικός σχεδιαστής εφαρμόσει την πολιτική των επιδοτήσεων (subsidization policy) ανά μειονοτικό εργάτη, η πολιτική αυτή αφενός θα επιφέρει την ισότητα στους μισθούς, αφετέρου θα επιφέρει και την παράλληλη αύξηση της κοινωνικής ευημερίας.

Η υποδειγματοποίηση των παραπάνω σχέσεων υποδηλώνει ότι οι Ευρωπαϊκές Οδηγίες κατά των διακρίσεων μπορούν να είναι αποτελεσματικές τόσο σε επίπεδο αποτελεσματικότητας (efficiency) όσο και ισότητας (egalitarian), στον βαθμό βέβαια που συνοδεύονται από την χρηματοδότηση του κόστους των επιδοτήσεων.

Αναλυτικότερα υποθέτουμε ότι κινούμαστε σε μία αγορά δύο επιχειρήσεων, με παραγωγικές ασυμμετρίες, που ανταγωνίζονται στις ποσότητες (Cournot competition). Στην παρούσα υποδειγματοποίηση κάνουμε χρήση της συνάρτησης χρησιμότητας των εργατικών σωματείων του Oswald (1982). Υποθέτουμε ότι κάθε εργάτης βρίσκει απασχόληση σε μια από τις δύο επιχειρήσεις (by default) και επίσης ότι κάθε επιχείρηση έχει το δικό της εργατικό σωματείο, όπου με την σειρά του κάθε εργάτης ενσωματώνεται στο αντίστοιχο. Παράλληλα υποθέτουμε ότι για την διαφοροποίηση των εργατών σε δύο ομάδες, ο εργοδότης υφίσταται ένα επιπλέον κόστος, αφού η απασχόλησή τους δεν είναι ισορροπημένη (balanced) (De Fontenay and Gans [2005]).

Δοθέντος των δύο Ευρωπαϊκών Οδηγιών κατά των διακρίσεων υποδειγματοποιούμε την αλληλουχία των σχέσεων (game theory) σε τρία στάδια. Στο πρώτο στάδιο, ο κοινωνικός σχεδιαστής ενεργοποιώντας τις Ευρωπαϊκές Οδηγίες έχει στην διάθεση του δύο πολιτικές (πρόστιμα-φόρους και επιδοτήσεις) με στόχο να επιλύσει την διάκριση των μισθών που παρατηρούνται ανάμεσα στις δύο ομάδες των εργατών. Ο κοινωνικός σχεδιαστής έχει δύο στόχους. Αφενός να ενεργοποιήσει οποιαδήποτε από τις δύο πολιτικές για την εξάλειψη του φαινομένου της διάκρισης

των μισθών, αφετέρου να επιλέξει εκείνη την πολιτική που θα οδηγήσει σε αύξηση της κοινωνικής ευημερίας. Στο δεύτερο στάδιο, μας ενδιαφέρει να διακρίνουμε το κατά πόσο τα εργατικά σωματεία και οι επιχειρήσεις έχουν από κοινού κίνητρο (incentives-rents) να υιοθετήσουν μισθούς διάκρισης στην ισορροπία. Στο τρίτο στάδιο, οι επιχειρήσεις ταυτόχρονα και ανεξάρτητα η μία από την άλλη θέτουν τα επίπεδα της απασχόλησης και του προϊόντος.

Ξεκινάμε την επίλυση του παιγνίου από το τρίτο στάδιο. Στο στάδιο αυτό κάθε επιχείρηση ανεξάρτητα από τι κάνει η άλλη επιχείρηση, προσαρμόζει το επίπεδο παραγωγής και απασχόλησης της με στόχο να μεγιστοποιήσει τα κέρδη της.

Στο δεύτερο στάδιο, οι επιχειρήσεις και τα εργατικά σωματεία διαπραγματεύονται για το επίπεδο των μισθών. Υποθέτοντας αρχικά ότι όλη την διαπραγματευτική δύναμη την έχουν τα εργατικά σωματεία (monopoly union) αποδεικνύουμε ότι και τα δύο μέρη έχουν από κοινού συμφέρον να θέσουν διακριτικούς μισθούς στην ισορροπία. Στην παρούσα υποδειγματοποίηση, ο γενικός μηχανισμός που οδηγεί τα δύο μέρη στην από κοινού υιοθέτηση των διακριτικών μισθών στην ισορροπία έχει ως εξής: Τα εργατικά σωματεία υποκινούμενα από την συνάρτηση χρησιμότητας τους, έχουν κίνητρο να υιοθετήσουν διακριτικούς μισθούς εσωτερικεύοντας (internalized) την επίδραση του συντελεστή διάκρισης που διαφοροποιεί τους μισθούς επιφυλακής των δύο ομάδων εργαζομένων. Ενώ σύμφωνα με την συνάρτηση χρησιμότητας των εργατικών σωματείων, εάν οι μισθοί των μειονοτικών εργατών είναι ίσοι με αυτούς των πλειονοτικών, οι επιχειρήσεις θεωρούν ότι οι μειονοτικοί απολαμβάνουν υψηλότερο μισθό. Έτσι κάθε επιχείρηση έχει κίνητρο να υιοθετήσει μισθούς διάκρισης για να αποζημιωθεί από αυτή την διαφορά. Στην περίπτωση αυτή οι επιχειρήσεις χαίρουν χαμηλότερου κόστους παραγωγής.

Στην συνέχεια, και υποθέτοντας ότι οι επιχειρήσεις έχουν στα χέρια τους διαπραγματευτική δύναμη (effective firm-union bargaining) αποδεικνύουμε ότι υπάρχει ζεύγος παραμέτρων τέτοιων ώστε οι μισθοί ισότητας μεταξύ πλειονοτικών και μειονοτικών να επιτευχθούν στην ισορροπία. Βασική προϋπόθεση για το αποτέλεσμα αυτό είναι η διαπραγματευτική δύναμη που διέπει τα εργατικά σωματεία να είναι ιδιαίτερα χαμηλή.

Στο πρώτο στάδιο, και υποθέτοντας ότι τα εργατικά σωματεία έχουν την πλήρη διαπραγματευτική δύναμη, ο κοινωνικός σχεδιαστής μπορεί αρχικά να επιβάλει πρόστιμα στις επιχειρήσεις εκείνες που παρέχουν διακριτικούς μισθούς. Με

την ανακοίνωση των προστίμων οι επιχειρήσεις θα μειώσουν την ποσότητα των μειονοτικών εργαζομένων, ενώ θα μειώσουν και την παραγωγή τους. Παράλληλα τα εργατικά σωματεία θα μειώσουν τους μισθούς των μειονοτικών εργαζομένων έτσι ώστε να προσαρμόσουν τους μισθούς μετά την εισαγωγή των προστίμων. Ο κοινωνικός σχεδιαστής επιλέγοντας το άριστο πρόστιμο θα αποτρέψει τα εργατικά σωματεία από το να υιοθετήσουν τους διακριτικούς μισθούς. Η πολιτική αυτή αν και είναι αποτελεσματική σε όρους ισότητας, συνεπάγεται αρνητική κοινωνική ευημερία. Εναλλακτικά, ο κοινωνικός σχεδιαστής μπορεί να παράσχει επιδότηση στις επιχειρήσεις ανά μονάδα μειονοτικών εργατών. Οι επιχειρήσεις αυξάνουν την ζήτηση των μειονοτικών εργατών ενώ τα εργατικά σωματεία αυξάνουν τον μισθό των μειονοτικών εργατών έως ότου να επέλθει η ισότητα στους μισθούς. Η πολιτική αυτή είναι αποτελεσματική αλλά και παράλληλα συνεπάγεται την αύξηση της κοινωνική ευημερίας.

Στο Έβδομο Κεφάλαιο, βασιζόμενοι εκ νέου στην υπόθεση της ομαδοποίησης των εργατών με βάση τον μισθό επιφυλακής τους, καθώς και της πλήρους διαπραγματευτικής δύναμη των εργατικών σωματείων (monopoly union), αναλύουμε το φαινόμενο της διάκρισης των μισθών μεταξύ πλειονοτικών και μειονοτικών εργατών, εισάγοντας την έννοια της εταιρικής κοινωνικής ευθύνης (corporate social responsibility).

Εμπειρικές μελέτες φανερώνουν πως χρόνο με τον χρόνο οι επιχειρήσεις αντιλαμβάνονται τον στρατηγικό ρόλο της εταιρικής κοινωνικής εύθηνης και συγκεκριμένα σε σχέση με το εργατικό δυναμικό (EBTP [2005]). Οι εργάτες κάθε επιχείρησης θεωρούνται το κεφάλαιο (asset) εκείνο πάνω στο όποιο οι επιχειρήσεις θα πρέπει να επενδύσουν. Παράλληλα, οι επιχειρήσεις ολοένα και συνειδητοποιούν την σπουδαιότητα που οι καταναλωτές-πελάτες προσδίδουν σε όσες επιχειρήσεις επενδύουν στους εργάτες τους. Φαίνεται επομένως πως η ισότητα μεταξύ των εργατών έχει θετική επίδραση για την φήμη και την υπόληψη των επιχειρήσεων.

Από την άλλη μεριά η αύξηση των εθνικών μειονοτήτων στην Ευρωπαϊκή Ένωση, των εργατών μεγαλύτερης ηλικίας, καθώς και των ατόμων με ανηπηρία, προκαλούν τις στρατηγικές των επιχειρήσεων για να υιοθετήσουν πολιτικές ισότητας (WSSD [2002]). Στο πνεύμα της ισότητας και της μη διάκρισης είναι άλλωστε και οι δυο Ευρωπαϊκές Οδηγίες κατά των διακρίσεων.

Οι επιχειρήσεις φαίνεται πώς πρέπει να διαδραματίσουν δύο ρόλους, αφενός να επενδύσουν σε πολιτικές εταιρικής κοινωνικής ευθύνης και αφετέρου να

διαφημίσουν τις πολιτικές αυτές. Ενώ και οι κοινωνικοί σχεδιαστές οφείλουν να ενημερώσουν τόσο την κοινωνία όσο και τις επιχειρήσεις για τα πλεονεκτήματα που η εταιρική κοινωνική ευθύνη μπορεί να φέρει (WSSD [2002]).

Στην παρούσα μελέτη, αποδεικνύουμε ότι η διάκριση των μισθών μεταξύ ίσων παραγωγικά εργατών μπορεί ενδογενώς να προκύψει εφόσον οι εργάτες ομαδοποιούνται σύμφωνα με το μισθό επιφυλακής τους. Επιπρόσθετα όμως, υποθέτουμε ότι οι καταναλωτές (customers) τείνουν να προτιμούν τα προϊόντα εκείνων των επιχειρήσεων, οι οποίες επενδύουν σε πολιτικές εταιρικής κοινωνικής ευθύνης υπό την έννοια της ισότητας των μισθών.

Επομένως, υποθέτοντας ότι η διάκριση των μισθών είναι η βέλτιστη πολιτική των εργατικών σωματείων οποτεδήποτε οι καταναλωτές είναι ανενημέρωτοι ή/και δεν ενδιαφέρονται σχετικά με την μη διάκριση των μισθών, αποδεικνύουμε ότι οι επιχειρήσεις πραγματώνουν υψηλότερα κέρδη όταν υιοθετήσουν μη διακριτικούς μισθούς, διαφημίζοντάς την στρατηγική αυτή ως πολιτική κοινωνικής εταιρικής ευθύνης. Η παραπάνω πολιτική αποδεικνύεται να είναι συμβατή και με τα συμφέροντα των εργατικών σωματείων, κατ' εφόσον οι καταναλωτές αποτιμούν (evaluate) σε υψηλό βαθμό την ισότητα των μισθών. Οι επιχειρήσεις υιοθετώντας την στρατηγική αυτή διαφοροποιούν το προϊόν τους σε βαθμό ικανό έτσι ώστε να μπορούν να αντισταθμίσουν το επιπλέον κόστος που συνεπάγεται η μη διάκριση των μισθών καθώς και το επιπλέον κόστος που συνεπάγεται η διαφήμιση της πολιτικής αυτής.

Στην αντίθετη περίπτωση αποδεικνύουμε ότι ο κοινωνικός σχεδιαστής μπορεί να ενημερώσει ο ίδιος τους καταναλωτές για το ποίες επιχειρήσεις δεν πράττουν διακρίσεις στους μισθούς, με άλλα λόγια, ο κοινωνικός σχεδιαστής να αναλάβει το κόστος της διαφήμισης. Όμως μία τέτοια πολιτική θα συνεπάγεται πάντοτε μείωση της κοινωνικής ευημερίας.

Αναλυτικότερα, υποθέτουμε ότι ο εξεταζόμενος κλάδος αποτελείται από δύο επιχειρήσεις που ανταγωνίζονται στις ποσότητες (Cournot competition), ενώ σε κάθε επιχείρηση αντιστοιχεί και το ανάλογο εργατικό σωματείο. Επίσης υποθέτουμε ότι οι καταναλωτές του κλάδου χαρακτηρίζονται από τις ίδιες προτιμήσεις (identical tastes). Με άλλα λόγια οι καταναλωτές αντιλαμβάνονται τις πολιτικές εταιρικής κοινωνικής ευθύνης των επιχειρήσεων, αναφορικά με την ισότητα στους μισθούς, ως βελτίωση της ποιότητας του προϊόντος. Απαραίτητη προϋπόθεση για να είναι οι καταναλωτές ενημερωμένοι για τις πολιτικές αυτές είναι η διαφήμισή τους, η οποία

συνεπάγεται επιπλέον κόστος για τις επιχειρήσεις. Παράλληλα, και ομοίως με το Έκτο Κεφαλαίο, επιπλέον κόστος απαιτείται από τις επιχειρήσεις οποτεδήποτε η απασχόληση εξίσου παραγωγικών εργατών δεν είναι ισορροπημένη (De Fontenay and Gans [2005]).

Το παρόν παίγνιο έχει ως εξής: Στο πρώτο στάδιο, στόχος του κοινωνικού σχεδιαστής είναι η επιλογή εκείνης της πολιτικής που θα οδηγήσει στην μη διάκριση των μισθών καθώς και στην μεγιστοποίηση της κοινωνικής ευημερίας. Στο δεύτερο στάδιο πραγματοποιούνται οι διαπραγματεύσεις μεταξύ των εργατικών σωματείων και των επιχειρήσεων. Το ενδιαφέρον εστιάζεται στο κατά πόσο διακριτικοί μισθοί θα προκύψουν στην ισορροπία. Στο τρίτο στάδιο, αν και μόνο εάν οι επιχειρήσεις έχουν επιλέξει μη διακριτικούς μισθούς (από το δεύτερο στάδιο) τότε οι επιχειρήσεις θα επιλέξουν να διαφημίσουν την στρατηγική αυτή ως πολιτική εταιρικής κοινωνικής ευθύνης. Στο τέταρτο στάδιο οι επιχειρήσεις ταυτόχρονα και ανεξάρτητα η μία από την άλλη καθορίζουν τις ποσότητες τους.

Ξεκινώντας την επίλυση του παιγνίου από το τέταρτο στάδιο οι επιχειρήσεις θέτουν αυτές τις ποσότητες που τους μεγιστοποιούν τα κέρδη τους. Στο τρίτο στάδιο, οι επιχειρήσεις επιλέγουν το άριστο επίπεδο διαφήμισης που φέρει η υιοθέτηση της πολιτικής της εταιρικής κοινωνικής ευθύνης, δηλαδή η μη διάκριση των μισθών.

Στο δεύτερο στάδιο, πραγματοποιούνται οι διαπραγματεύσεις των μισθών μεταξύ των εργατικών σωματείων και των επιχειρήσεων. Αποδεικνύουμε ότι εάν οι καταναλωτές έστω και ελάχιστα αντιλαμβάνονται την μη διάκριση των μισθών ως βελτίωση της ποιότητας του προϊόντος, οι επιχειρήσεις έχουν κίνητρο να υιοθετήσουν μισθούς ισότητας, κατ' εφόσον στο τρίτο στάδιο οι επιχειρήσεις έχουν επενδύσει σε διαφήμιση. Υπό αυτή την προϋπόθεση οι επιχειρήσεις διαφοροποιούν το προϊόν τόσο, έτσι ώστε να αποζημιώνονται για το υψηλότερο κόστος που φέρει η διαφήμιση καθώς και οι μισθοί της ισότητας.

Στο πρώτο στάδιο, ο κοινωνικός σχεδιαστής βρίσκει σαν κατάλληλη οικονομική πολιτική την επιδότηση της διαφήμισης οποτεδήποτε τα εργατικά σωματεία δεν έχουν κίνητρο να υιοθετήσουν την ισότητα στους μισθούς. Αποδεικνύεται, όμως, ότι η πολιτική αυτή οδηγεί σε μείωση της κοινωνικής ευημερίας.

Συμπερασματικά, στην παρούσα διατριβή διεξάγαμε εμπειρικές μελέτες χρησιμοποιώντας πειράματα πεδίου για την διερεύνηση του φαινομένου της διάκρισης στην αγορά εργασίας, ενώ η πρωτοτυπία των μελετών αυτών έγκειται στο

γεγονός ότι παρόμοιες έρευνες δεν έχουν εκπονηθεί ποτέ για την περίπτωση της Ελλάδας. Η δυναμική των εμπειρικών μελετών έγκειται στο γεγονός ότι κάνουν χρήση μίας πειραματικής τεχνικής εφαρμοσμένης για την καταγραφή διακριτικών τάσεων εξετάζοντας αμερόληπτα την σχέση μεταξύ εργοδότη και εργάτη. Κυριολεκτικά η παρούσα μελέτη κατέγραψε έπ' αυτοφώρω τις επιχειρήσεις όταν μεροληπτησαν εις βάρος μειονοτικών εργατών. Οι εκτιμήσεις υποδηλώνουν την ανάγκη να εξεταστεί η επίδραση της εθνικότητας και του γενετήσιου προσανατολισμού στους όρους πρόσληψης και ευρύτερα σε όλες τις εκφάνσεις της κοινωνικής ζωής των ομάδων αυτών στην Ελλάδα.

Παράλληλα, η θεωρητική θεμελίωση του φαινομένου της διάκρισης εξειδικεύεται μέσω των διαπραγματεύσεων των εργατικών σωματείων και των επιχειρήσεων που βιβλιογραφικά δεν έχουν ξαναχρησιμοποιηθεί για την θεωρητική ερμηνεία του φαινομένου της διάκρισης των μισθών. Η παρούσα υποδειγματοποίηση αποτελεί την πρώτη προσπάθεια χάραξης οικονομικής πολιτικής υπό το πρίσμα των δύο Ευρωπαϊκών Οδηγιών κατά των διακρίσεων. Ενώ, η υποδειγματοποίηση των οικονομικών πολιτικών για την αντιμετώπιση της διάκρισης των μισθών παρουσιάζει επιπρόσθετο ενδιαφέρον, αφού ζεύγος εναλλακτικών πολιτικών εξετάζονται με γνώμονα την αποτελεσματική επίλυση του φαινομένου (φόροι, επιδοτήσεις, πολιτικές εταιρικής κοινωνικής ευθύνης), και την εκτίμηση της μεταβολή της κοινωνικής ευημερίας (social welfare). Η θεωρητική εξειδίκευση στοχεύει στο να παράσχει χρήσιμα αποτελέσματα, καθώς και να σκιαγραφήσει τους τρόπους μέσω των οποίων μειονοτικές ομάδες δέχονται διακριτικές συμπεριφορές από τις επιχειρήσεις και τα εργατικά σωματεία δημιουργώντας την βάση για περαιτέρω μελέτη και εξειδίκευση του φαινομένου.

Introduction

The right to equal treatment is a universal right and a fundamental value of the European Union. In Europe, this is reflected in the fact that all European Union Members States have adopted legislation that prohibits discrimination, and they have all become parties to the main human rights conventions, concluded under the auspices of the United Nations and the Council of Europe, each of which prohibit discrimination. Equal treatment is about securing the rights and opportunities of all individuals and it is a key ingredient in achieving inclusive labour market and social cohesion. Nevertheless, evidence suggests that each year millions of people living in Europe experience discrimination on the basis of their demographical characteristics. Yet, little is known about the causes, extent, nature and effects of discrimination.

The European Union Member States have, on political and legal levels, committed themselves to equal treatment and the fighting of discrimination. Protection from unequal treatment was significantly strengthened throughout the European Union by virtue of the adoption and national implementation of two European Union directives, namely the Racial Equality Directives (2000/43/EC), which prohibits discrimination on the ground of race and ethnicity in the areas of employment and occupation, and the Employment Equality Directive (2000/78/EC), which prohibits discrimination based on ethnicity and race, age, disability, religion and beliefs and sexual orientation in the areas of employment, occupation, education, social protection, social advantages and access to supply of goods and services which are available to the public, including housing.

A significant property of the two Directives is that they do not just focus on individual prejudice and its consequences, but on institutional and societal patterns and practices. Group outcomes are emphasized, both in order to diagnose discrimination, and to discover whether remedial measures have been effective. This in turn makes it important to have access to collective empirical data and to be in a position to utilize such data, and to recommend relevant economic policy in a way which is relevant for theses purpose.

The current thesis is an action taken in the wake of the adoption and national implementation of the European Directives. The objectives of this thesis are twofold. On the one hand, to provide empirical evidences regarding discriminatory trends in the Greek private labour market based on ethnicity and sexual orientation. On the

other hand, to evaluate how wage discrimination against minorities implemented by unions and firms can be efficiently solved through social planners interventions, influenced by the two European Directives.

To be specific, the aim of this thesis is to examine ethnic and sexual orientation minorities' performance in the Greek labour market by examining their occupational access and wage rates two/three years after the national adoption of the two European Directives (3304/2005) by employing an experimental approach (correspondence test). Moreover, to theoretical evaluate (modeling) wage discrimination against minorities implemented by unions and firms, and to develop positive actions in order to combat discrimination by assessing the effectiveness of the European legislation.

As it comes, the main contribution of this thesis is that the first objective has not ever been examined for Greece by employing an experimental approach. The second objective is that wage discrimination against minorities has not ever been evaluated by utilizing union-oligopoly-decentralized-bargaining framework under the influence of the European antidiscrimination legislation. Whilst, the present theoretical based evaluation is the first attempt to assessing the effectiveness of the European Directives.

It has become common wisdom that modern forms of discrimination are often subtle and covert, which means that they are also less easy to prove. Empirical data can have a key role in recognizing the need for, and planning of, positive action measures. More importantly, empirical evidences can be used as evidence for the purpose of proving the existence or absence of discrimination in individual cases, the analysis of the causes, extent and effects of discrimination in the society in general, and showing the composition of the workforce to reveal possible under-representation that may be due to discrimination.

On the other hand, economic policy based on the initiation of the two European Directives is need to be taken to promote equality of treatment as denial of equal opportunities comes at a high price for those concerned and the society at large. Antidiscrimination strategies can serve as a compelling, factual baseline for national discussion on equality and discrimination. Hence, effective economic policies are needed to guide and support development and implementation.

The current thesis is structured as follow:

The purpose of the Chapter One is to present the most prevalent theoretical literature of labour market discrimination. Labour market discrimination can be defined as occurring when one group of workers with abilities, education, training, and experience equal to another group of workers are provided inferior treatment in hiring, occupational access, promotion or wage rates on the basis of some personal and/or demographic characteristic which is unrelated to productivity. The studies of discrimination in the labour market have been very popular during the last five decades. In analyzing discrimination however, it is very important to understand what constitutes discrimination and to recognize that it can be of different types and taken different forms. The theoretical foundations of labour market discrimination go back to the seminal papers of Becker (1957), and Arrow (1972).

Becker (1957) instead of making the common assumptions that employers consider only the productivity of employees, that workers ignore the characteristics of those with whom they work, and that customers care only about the qualities of the goods and services provided, discrimination coefficients incorporate the influence of race, gender and other personal characteristics on tastes and attitudes. Presumably, the amount of observable discrimination against minorities in wages and employment depends on tastes for discrimination. Becker's theory of Taste discrimination, evaluates that if an individual has a taste for discrimination she/he must act as if he were willing to pay something, either directly or in the form of a reduced income, to be associated with some persons instead of others. Employers are prepared to sacrifice profit to avoid minority workers, majority employees are prepared to sacrifice wages to avoid minority workers, and consumers prepared to pay higher prices to avoid minority provision because of this distaste. Becker using this approach explains why wages disparities occur between these two groups. It is considered that there are two ascriptively different but equivalent productivity groups on average, when employers have a preference for a member of one group over the other. Because of ascriptive differences, the employer is willing to pay a reward for workers who are preferred by her/him

A theoretical development in recent years in the analysis of the consequences of stereotyped reasoning or Arrow's Statistical discrimination (1972). This analysis suggests that the beliefs of employers and other influential groups that minority members are less productive can be self-fulfilling. For these beliefs may cause minorities to under-invest in education, training, and work skills, such as punctuality.

The current explanation is that labour market discrimination may emerge from information costs in hiring labour, for instance trouble in acquiring detailed information for each applicant. If employers believe that the average productivity of two easily identifiable groups varies, then they may use sex, race, sexual orientation etc. as a cheap screening device. In a world of imperfect information employers face risks in hiring workers, and race, and gender become inexpensive screening devices. If employers believe that there is a systematic differential between the gender or races, in their reliability aptitude and job stability, this is sufficient to create a permanent differential in wages between minorities and majorities. In the case of statistical discrimination theory, in contrast with Becker's theory of taste for discrimination, employers do not discriminate against minorities because of distaste or prejudice. Instead they discriminate against them because they believe that hiring minorities rather than majorities is not profitable for them on average.

Ever since the seminal work of Becker and Arrow who developed several hypotheses about the causes of discrimination behaviour, economists have been looking for ways to test these hypotheses. In Chapter Two, we introduce a well defined methodology to record discriminatory treatments: Field experiments. Field experiment is a form of social experiment in a real life situation which has to potential to provide unbiased statistical data on discriminatory treatments (Riach and Rich [2004]). Discrimination tests (correspondence testing) provide a unique opportunity to conduct tests because they illuminate the circumstances under which unequal treatments occur. Traditional experiments typically begin with clearly defined "treatment" and "control" conditions, to which subjects are randomly assigned. All other environmental influences are carefully controlled. A specific outcome variable is then recorded to test for differences between groups.

In discrimination testing, at least two individuals are matched for all relevant characteristics other than the one that is expected to lead to discrimination, e.g. ethnicity and sexual orientation. The testers apply for a job and the outcomes and the treatment they receive are closed monitored. This kind of paired testing allows for good control over different causal variables, diminishing the possibility that differences in treatment are caused by variables that the researcher can not observe: The direct and unequivocal measurement leaves no room for other explanations.

Actually, establishing whether there is discrimination by employers in hiring workers is clearly of great importance but is of considerable difficulty. The only

really sound approach is to conduct field experiments (Yinger [1989]). Experimental labour market studies have the advantage of directly observing differential treatment, or in short hand terminology, discrimination as it happens. The findings of these tests have influenced public opinion and government policy on publicizing the continued prevalence of discrimination in a particular persuasive way.

In Chapter Three, we introduce the European antidiscrimination legislation. The inclusion of Article 13 in the European Community Treaty, following the entry into force of the 1997 Amsterdam Treaty, empowered the Union to deal with discrimination on an extensive range (Green Paper [2004]). That development in turn led, in 2000, to the unanimous adoption by the Council of the Employment Equality Directive and the Racial Directive Directive aiming to ensure that everybody living in the European Union can benefit from effective legal protection against discrimination. The former Directive prohibits discrimination on the ground of race and ethnicity in the areas of employment and occupation, while the latter Directive prohibits discrimination based on ethnicity and race, age, disability, religion and beliefs and sexual orientation in the areas of employment, occupation, education, social protection, social advantages and access to supply of goods and services which are available to the public, including housing. The two Directives significantly raised the level of protection against discrimination across the European Union. At the political level, the achievement of a high level of employment, the promotion of social cohesion, and the creation of an area of freedom, security and justice have become objectives of high priority. Whilst, the legal and political commitment to the fight against discrimination is stronger than ever.

In the contemporary Greece, social and legal proscriptions against discrimination are strong, placing pressure on potential discriminators to conceal their motives. Employers who retain strong preferences for members of particular group face clear incentives to mask their discriminatory actions. It could be the case, then, that discrimination remains fairly routine in certain contexts, despite infrequent exposure. The Chapters Four presents the detailed results of a discrimination test conducted for the first time in Greece to date.

During the last few years Europe has become conscious of the existence of ethnic minority groups and the prejudices that they face (European Union Agency for Fundamental Rights [2007]). Year by year, European national reports reveal that societal-discrimination is sweeping and contributes to numerous forms of ill-

treatments. On the other hand, the fight against discrimination has been of particular focus to social planners in Europe at least in part to the dramatic growth of racism following the end of Communism and the initiation of immigration (Green Paper [2004]). In Greece, in particular, discrimination had not ever been prominent in discussion until the country was more recently turned into a migrant destination as well. In fact, it was not until 1991 that Greece had experienced its very first flows of immigrants which were moreover dominated by Albanians (Baldwin-Edwards [2004]). On the other hand, nonetheless, the Greek labour market, seeking for low-paid labour, allowed immigrants to find jobs in large numbers, regardless of skill levels (OECD [2005]). Those immigrants being frequently under-insured, or illegal, under abusive conditions, and underpaid (Psimmenos and Kassimati [2004]).

In the current study we investigate whether ethnic minorities, particularly Albanians, are still facing discriminatory practices in the Greek labour market, two years after the national adoption of the European Union antidiscrimination legislation, as no discrimination test and relevant empirical works have been done so far.

In particular, by means of a real life experiment, we first aim to detect discrimination at the preliminary stage of the selection process, which for minorities seems to be the most crucial barrier to the labour market (Eurobarometer [2003, 2007]). Our experiment was conducted between May 2006 and January 2007 and involved the major city of Greece, Athens. In order to measure discrimination in occupational access for Albanians, we had fabricated two imaginary, equal in human-capital workers, applying to the same job by sending curriculum vitaes using different fax devices. Among the two applicants the only difference was their nationality. The occupations, to which we have been focused on, covered a large spectrum of job quality: office jobs, industries, café and restaurant services and shop sales, and we had concentrated on low-skilled groups as they expected to be at more risk for discrimination: Particularly, on non-graduate male applicants workers in the private sector. Interestingly, whenever employers called for arranging appointments with the applicants the two testers were trying to raise informal questions, concerning wage and insurance coverage offers. Consequently, the advanced methodology enables us further to record initial wage offers and insurance coverage registrations in case of hiring.

The estimations show that Albanians were faced a marginal probability to be invited for an interview that is by 0.214 less than that of Greeks. Moreover, this

probability varies across occupations: In office jobs the Albanian applicants were faced 0.375 less probability to be invited for interview, 0.257 in shop sales, 0.161 in industries, and 0.124 in restaurants and café services. Therefore, on the part of employers taste and/or statistical discrimination is implied against the Albanian. Turning next to monthly wage offers, the estimations entail that Albanians were faced an "ethnic penalty" of 73.6€, producing a wage discrimination factor of d=0.110. The higher penalty is found in office jobs of 95.9€, d=0.131, followed by industries of 74.7€, d=0.110, shop sales of 57.8€, d=0.092, and restaurant and café services of 29.9€, d=0.050. Last, but not least, focusing on the insurance coverage issue Albanians are thereby found to face a marginal probability of receiving insurance coverage which is by 0.239 lower than that of Greeks. Particularly, in restaurant and café services Albanians are found to face a 0.293 such difference, followed by 0.273 in office jobs, 0.228 in industries, and 0.188 in shop sales.

In Chapter Five, by utilizing the same methodology we first aim to detect sexual orientation discrimination at the preliminary stage of the selection process. Despite worldwide legal protection impetus sexual orientation discrimination does exist in employment. Evidences suggest that the labour market values gay men's human capital less than that of straights. Specifically, gay men have repeatedly claimed that they are fired, not hired, or not promoted because of their orientation (Mason and Palmer [1996], Colvin [2004]), while the estimated effects of men's ″homosexuality″ on earnings are found to be negative (Arabsheibani, Mani, and Wadsworth [2004], Plug and Berkhout [2004]).

The current study has taken account since no official data and empirical studies exist to investigate gay men's employment terms in Greece. The scope of the present study is to investigate whether gay-labeled men are facing discriminatory practices in the Greek labour market compared to straights, and by thus to evaluate whether stereotypical misconception against gays prejudice the Greek employers' screening processes, interestingly three years after the national adoption of the European Antidiscrimination employment legislation.

Methodologically, following Adam (1981) and Weichselbaumer (2003), gay applicant's sexual orientation was labeled through a reference in his curriculum vitae to a voluntary work at a homosexual community. The methodology strictly implies that the emanated signal is accurate for credibly testing the discrimination hypothesis.

The experiment was conducted between December 2006 to September 2007 and involved the capital of Greece, Athens. Once again we concentrated on low-skilled groups and we investigate the four mentioned sectors; office jobs, industry jobs, café and restaurant services and shop sales, that is, on factors that influences variation in discriminatory behavior across vacancies.

Similarly, taking advantage of the telephone callbacks, we have extended the correspondence test application by also gathering data concerning informal monthly wage offers on the part of employers in case of tentative hiring. We argue that this additional data set enabled us to further record discriminatory attitudes across sexual orientations in the ensuing steps of the selection process, while by extending the experimental methodology we provided unbiased empirical evidence on the equivocally relationship between sexual orientation and earnings.

Our results can not be underestimating: The gay applicants were faced a marginal probability to be invited for an interview that is by 0.261 less than that of the straight applicants on average. The result suggests that gay applicants are discriminated when actual employers make hiring decisions. Though, heterogeneity amongst sectors, the probability varies across them: In office jobs gay men face 0.304 less probability to be invited for interview, followed by 0.289 in shop sales, 0.248 in industries, and 0.211 in restaurants and café services. It seems that gay men relative to straight men have to spend more time, effort, and resources, for an interview, as the same observable signal is more precise for straights than gays. Turning next to monthly wage offers the estimations entail that the gay applicants were faced a monthly ″sexual orientation penalty″ of 18.3€, producing a wage discrimination factor d=0.026. Separately in each sector we found similarly insignificant small effects. The higher penalty is found in shop sales of 14.9€, d=0.023, followed by office jobs of 8.7€, d=0.011, restaurant and café services of 6.0€, d=0.009, and industries of 2.9€, d=0.003.

Next, having estimated a significant degree of occupational access discrimination against gay applicants we were interested also in investigating whether employers sex could determine discriminatory attitudes. To attempt to assess the role of these, in the experiment whenever employers themselves had invited applicants the testers gathered the specific information. Our results show that, the estimated probability of gay applicants to receive an invitation for interview was by 0.350 lower

(higher) if employers were males (females), on average. Moreover, males found to practice sexual orientation penalties of 22.1€ [0.030] against gay applicants, while females provided them with a wage premium of 4.5€ [0.000] on average. Consistent with empirical evidences we found that males discriminate more than females.

The empirical evaluations have taken account of two particular drivers influencing recent governmental outlooks on ethnicity and sexual orientation. The first is the increased recognition of diversity, and the second the continuing wish to achieve good practice on equality. The findings suggest the need to examine more closely the effects of immigrant and sexual orientation minorities and local labour market characteristics on employments for minority populations in Greece. More importantly, the results can significantly contribute to the perception about what might amongst else affect the opportunities of certain minority groups to access employment and thus uncover well concealed discrimination which is hard to detect by other means. At the same time, the potential of directly collecting discrimination data might further support antidiscrimination policies, since these policies can only be as good as the information on which they are based.

As field-experiments postulate discrimination in the labour market is still witnessed raising the need for active antidiscrimination policies. The evidences provide a strong indication that labour market discrimination, as in particular regards ethnic minority groups/economic migrants, is significant and it might be related with other than productivity factors.

In Chapter Six, we introduce our first union based theoretical contribution. As we have analysed, the theoretical foundations of labour market discrimination go back to the seminal papers of Becker, and Arrow. In the current theoretical modeling we refrain from both those approaches. On the first hand, we abstain from any taste to discriminate on the part of anyone and against anybody. On the other hand, as it comes to beliefs about workers' individual quality we postulate that employers are unbiased as regards any particular group of workers.

In a context of union-oligopoly decentralized bargaining, we propose that wage discrimination among equally-skilled workers may emerge as long as: First, workers can be ex ante grouped according to different opportunity costs of employment (e.g., reservation wages). Second, depending on the distribution of bargaining power over the wage, the labour market agents (e.g., firms and unions) find wage discrimination to their best interest. This key result in turn suggests that the

European Union antidiscrimination directives may drive benevolent policy makers to combat wage discrimination without necessarily confronting a net loss in social welfare.

Based on these assumptions, we subsequently argue that if in the absence of an active antidiscrimination policy, unions are powerful enough (monopoly union) over the wage bargain then firm-specific discriminatory wage contracts will emerge in firm/union pair in the equilibrium. On the other hand, to combat wage discrimination, a benevolent policy maker, operating under a balanced budget, may alternatively: Announce a tax, in the form of a wage penalty per unit of discriminatory employment, which will be imposed to firms, whenever they apply the discriminatory wage scheme. Issue to firms a subsidy, per unit of discriminatory employment, whatever is their firm-specific wage configuration. Both policies result to non-discriminatory wage rates in the equilibrium. However, if the upper bound of the reservation wage is sufficiently low the latter policy is superior to the former on efficiency grounds.

Hence, our analysis further implies that the European Union antidiscrimination directives may in fact prove to be effective, on both egalitarian and efficiency grounds, insofar as they are escorted by a financial assistance scheme to policy makers covering at least a part of the total subsidization costs, including the sunk ones of setting up the monitoring system.

In Chapter Seven, we introduce our second union based theoretical contribution. The European economy has recently experienced a rapid growth of interest in the exertion and the implications of corporate social responsibility in the labour market. Perhaps because, according to the public stereotyping, workers are thought to be among the key stakeholders in any firm, and there is evidence on the increasing importance which consumers attach to companies who demonstrate their social responsibility by practically recognizing it. At the same time, and in particular, the higher participation of ethnic minorities, the elderly, and people with disabilities in the labour market, challenge firms to adopt diversity and antidiscriminatory schemes, while an increasing number of firms are indeed doing so.

Turning to the institutions, the European Union in fact seems to be ahead of those trends by issuing, since 2000, the antidiscrimination Employment Directive establishing the principle of diversity and non-discrimination. Firms have therefore been assigned a two-fold role, in enabling the society to reap the benefits of

globalization: To exert social responsibility, regarding ethnic or other minorities in the labour market, and also to report it. It thus seems that exerting and advertising corporate social responsibility, in the labour market, as well as elsewhere, should today be amongst the firms' priorities.

The scope of the current study is to explore, along the previous lines, the case(s) of equality versus discrimination in the labour market, with a view to assess the factors and policies addressing either instance. In particular, and given the European Union antidiscrimination Employment Directive, our focus is on aspects of wage discrimination.

In a context of union-oligopoly decentralized bargaining we propose that wage discrimination among equally-skilled workers may endogenously emerge as long as workers can be *ex ante* grouped according to their reservation wages (see, Chapter six). On the other hand nonetheless consumers may ceteris paribus attach higher valuation to the product of a firm which exerts *csr* by not discriminating in pay against anyone of its employees; of course, so long as they are informed about that. Hence, though wage discrimination seems to be the unions' optimal choice whenever consumers are ignorant and/or they do not care about non-discrimination in wages, firms may independently achieve higher profits by strategically opting for non-discrimination in wages and advertising it as an exertion of *csr*. If, by doing so, they can vertically differentiate their product enough to compensate for both the *csr*-advertisement costs and the higher unit costs of production which non-discrimination relative to discrimination entails.

Such an option of strategic *csr* on the part of firms may in turn prove to be compatible with the unions' best interest, as well, if the consumers' valuation of non-discrimination is sufficiently high. If not, we subsequently propose that in order to deter wage discrimination a policy maker should instead of firms undertake *csr*-advertisement in the event of non-discrimination in wages. Yet, such an antidiscrimination policy would always entail a net loss in social welfare.

To sum up, the thesis main concern is with the relevance of empirical analysis and evaluating economic policy regarding various aspects of labour market discrimination. This thesis is an action taken in the wake of the adoption and national implementation of the two European antidiscrimination legislations and the objectives are twofold: On the one hand, to provide empirical analysis concerning discriminatory trends in the Greek private labour market. On the other hand, to

evaluate how specific discriminatory practices can be efficiently solved through social planners interventions, influenced by the two Directives.

The main contribution of this thesis is that neither the first objective has been ever examined for the Greek labour market, nor the second objective has been ever evaluated by the principles of the economic theory under the European Union antidiscrimination legislation. Statistical evidences can be used as the analysis of the causes, extent and effects of discrimination in the society in general, and showing the composition of the workforce to reveal possible under-representation that may be due to discrimination. On the other hand, economic policy are need to be taken to promote equality of treatment as denial of equal opportunities comes at a high price for those concerned and the society at large and are needed to guide and support development.

Chapter 1
Theories of Discrimination

1.1 Introduction

The definition of the various types of discrimination is sufficiently important to merit elaboration. Labour market discrimination can be classified into four general types (McConnell and Brue [1995]). First, wage discrimination[1] where minority groups are paid less than majority groups for doing the same work. Second, employment discrimination where, other thinks being equal, minorities bear a disproportionate share of the burden of unemployment[2]. Third, occupational or job discrimination, where minorities have been arbitrarily restricted or prohibited from entering certain occupation, even thought they are capable as no minority workers of performing those jobs, and are conversely crowded into other occupations for which they are frequently overqualified. Fourth, human capital discrimination where is in evidence when minorities have less access to productivity-increasing opportunities such as formal schooling or on the job training[3].

The theories of labour market discrimination are concerned with how and why productively irrelevant characteristics of workers influence the labour market behavior of employers and workers (Swinton [1977]). To be specific, discrimination is generally understood to exist when some superficial[4] characteristic is used in an attempt to restrict individuals' access to the available economic, political, and social opportunities for advancement. Yet, discrimination is effective when society's tangible and intangible compensations are, consistently distributed as least in part on

[1] More technically, wage discrimination exists when differentials are based on considerations other than productivity differentials.

[2] Minorities in particular have long faced the problem of being the last hired and the first fired.

[3] Minorities in particular often obtain less education and education of inferior quality compared to majorities.

[4] "Superficial", in this context, signifies that the characteristics being used for discriminatory purposes are either largely or completely unrelated to the individuals' actual or potential talent, skills, and drive.

the basis of this characteristics, without full regard for the relative productivities of its members (D' Amico [1987]).

The purpose of any theory of discrimination is to explain the observed discriminatory wage differentials and to show that the persistence of discriminatory wage differentials can in fact be explained by the natural operations of independent actors in the market place, rather than by some cabalistic conspiracy of all members of the dominant group to keep the underdogs down. Thus, the theory must offer an explanation for residual differences in occupational distributions, wages, unemployment rates and industry or firm distributions which have been observed to exist between otherwise homogeneous workers of different rates, ethnic, sex, sexual orientation or religious groups within the same labour market.

Reich (1980), argues that none of the neoclassical discrimination models are both logical coherent and empirically plausible. Nevertheless, they have drawn attention to various microeconomic issues which need to be incorporate into theory of discrimination. The most prevalent theories are: the Taste discrimination by Becker (1957; 1971), the Ethnic Cartels by Krueger (1963), the Statistical theory of discrimination by Arrow (1973; 1998), the Crowding-Occupational Segregation theory by Bergmann (1971), and the Market Power Monopsony theory by Madden (1973).

The classical statement of the Taste discrimination is Gary Becker's Theory of Discrimination. Becker's taste for discrimination envisions discrimination as a preference or taste for which the discrimination is willing to pay. Employers' tastes for discrimination are based on the idea that they and/or their employees and/or customers want to maintain a physical or social distance from certain groups; for example, that majority employers and their workers do not want to associate with minority workers. These employers may then choose not to hire minority workers because they and their employers do not want to work alongside them.

Krueger (1963) developed Ethnic Cartels theory of discrimination, argued that economic gain rather than psychic preference is the main motive for discrimination, with the benefit achieved through collective action by economically ethnic group. Arrow (1974) has further developed the analysis based on neoclassical assumptions, and relates them more closely to the theory of general competitive equilibrium.

On the other hand, the idea that competition might eliminate market discrimination involved the development of market discrimination models under the

states of affairs characteristics of neoclassical imperfect competition or so-called Statistical discrimination. The neoclassical theory of statistical discrimination is based on the result of search and information, which affect efficiency. In these models the discrimination results from the profit maximizating response of employers to uncertainty about the quality of individuals workers when the real or subjective quality distributions favour the group which receives preferences (Arrow [1973], Phelps [1972], Aigner and Clain [1977], Goldberg [1978], Schwab [1986]). The standard statistical discrimination model presents society with an uncomfortable trade-off. In prohibiting statistical discrimination, society must accept lower national output.

According to the Crowding theory (Bergmann [1971]), discrimination is the key point that forces minorities to 'crowd' into low paying jobs, limiting minority labour supply to other occupations, and depressing marginal productivity and wages. Majorities gain from working in higher paying jobs closed to minorities. Reducing labour supply to such jobs, due to minority exclusion, pushes up wages for majorities, including those who might otherwise lose their jobs but for discrimination. In Bergmann's model, majorities gain from minority losses.

Finally, based on the theory of Market Power, an employer may find it profitable to practice wage discrimination. Madden (1973) concluded that the employer need not be prejudiced; a majority male employer need not dislike minorities or female as employees or on any other grounds. Wage discrimination simply pays in terms of maximizing profits.

1.2 Taste Discrimination Model

The economic theory of discrimination based on prejudice implies that actual discrimination by firms or workers is measured by how much profits or wages they forfeit to avoid hiring or working with members of a group that is disliked. Evidence on forgone profits, wages, or prices is typically not available, so discrimination against a group is usually measured by comparing the earnings of members of the group with earnings of the majority who have the same years of schooling, job experience, and other measurable characteristics.

The modern neoclassical theory of racial and sexual wage differentials was developed by Becker (1971)[5]. Following Becker's lead and assuming a society in which majorities discriminate against minorities. Labour market discrimination exists when majority employers or employees have a distance for association with minorities and conduct their labour market transactions in a way that is intended to minimize or eliminate such contact. According to Becker, these discriminators "…must, in fact, either pay or forfeit income for this privilege" (1971, p. 14). If an employer can hire a minority at the wage w, he is a discriminator if he behaves as thought this wage were,

$$w(1+d_i) \tag{1}$$

where: d_i is a positive number that Becker calls the employer's discrimination coefficient (the subscript identifies the employer).

An employer who refuses to hire a minority at any wage, however low, has an infinitely large d_i[6]. It is usual to measure the strength of the ith employer's prejudice by the proportion d_i by which the wage of N (minorities) workers would have to fall below the wage of W (majorities) workers before the employer would be willing to overcome his dislike of N workers and hire them. For any differential,

$$d = \frac{w_W - w_N}{w_W} \tag{2}$$

As it comes, all those of employers with discrimination coefficients greater than d will wish to employ W workers, and all those employers with discrimination coefficients less than d will wish to employ N workers[7].

[5] Becker's book, the Economics of Discrimination (1957), was written and published in a period when discrimination against blacks and women workers was legal in most states of America.

[6] If d_i is negative, the employer discriminates in favor of a particular group; this behavior is called nepotism if the employer is himself a member of this group.

[7] Therefore the equilibrium coefficient d* is that d such that there are just enough employers with $d_i<d$ to employ all the N workers in the economy.

The obvious implication of the discrimination coefficient is that the employer is willing to pay the favored workers ($w+d_i$) and the ones discriminated against ($w-d_i$), so that if w_W is the wage of majority workers and w_N the wage of minority workers and the employer prefers W's to N's, $w_W > w_N$.

The most basic idea in *The Economics of Discrimination* is that market discrimination is defined by a comparison of the wages rates of two groups, W and N, (a) as they are actually observed, and (b) as they would be observed in the absence of discrimination[8]. Specifically, if the observed wages of groups W and N are p_W and p_N, and if they would be p_W^0 and p_N^0 in the absence of discrimination, then the proportionate market discrimination against group N is,

$$D=[\frac{p_W}{p_N}-\frac{p_W^0}{p_N^0}]/(\frac{p_W^0}{p_N^0}) \approx \ln(\frac{p_W}{p_N})-\ln(\frac{p_W^0}{p_N^0}) \qquad (3)$$

while D is the proportionate shortfall in the N to W wage ratio from what it would be in the absence of discrimination[9]. Since the wage ratio $\frac{p_W}{p_N}$ is actually observed, implementing this definition of market discrimination is tantamount to specifying an empirical theory of wage determination that would be expected to prevail in the absence of discrimination.

As Oaxaca (1987) observed, there is natural way to do this. Suppose that it is agreed that some characteristics (in a vector) X determine pay in the absence of discrimination. Suppose further that for group W, the relationship between the wages, p_W and these characteristics is of the form,

$$\ln p_W = b_W X + u \qquad (4)$$

[8] For example, if W and N are perfect substitutes in production, in the absence of discrimination W and N would have the same wages rates. In this case, the difference between the wage rates of the two groups W and N is a measure of discrimination.

[9] It is clear that a similar definition of market outcome, whether it be the number employed, hired, or discharged, or some other measure of compensation.

where b_W is an unknown regression coefficient (vector) and u is a disturbance. Proportionate market discrimination is then approximately,

$$D \approx \ln(\frac{p_W}{p_N}) - b(X_W - X_N) \quad (5)$$

where X_W and X_N represent the characteristics of the N's and W's being compared. In this set up, discrimination is measured as the difference between the observed proportionate wage difference between N's and W's and the proportionate wage difference that would be expected if N's were paid in the same way as W's. If N's are the group against which discrimination is alleged, it is common, and perhaps most natural, to use this definition of market discrimination. In an analogous way, however, a measure of market discrimination that assumes W's are paid in the same way as N's in the absence of discrimination may also be constructed[10].

Discrimination by an employer based on his own tastes and prejudices implies that the employer does not maximize money profits. On the contrary, he is willing to sacrifice profits by paying higher wages than he needs to or by accepting workers less qualified than others he could recruit at the same wage, in order to indulge his tastes about the composition of his work force.

Becker has shown that in a competitive labour market the size of the wage differential between equally competent minority and majorities will depend on two factors. The first is the shape of the distribution of employers by the extent to which they discriminate; the second is the size of minority groups. A simplified form of Becker's argument is shown in the Figure 2.1, which represents an occupational labour market in one labour-market area. Total employment in the occupation is assumed to be constant. It is assumed further that the majority wage is fixed at unity

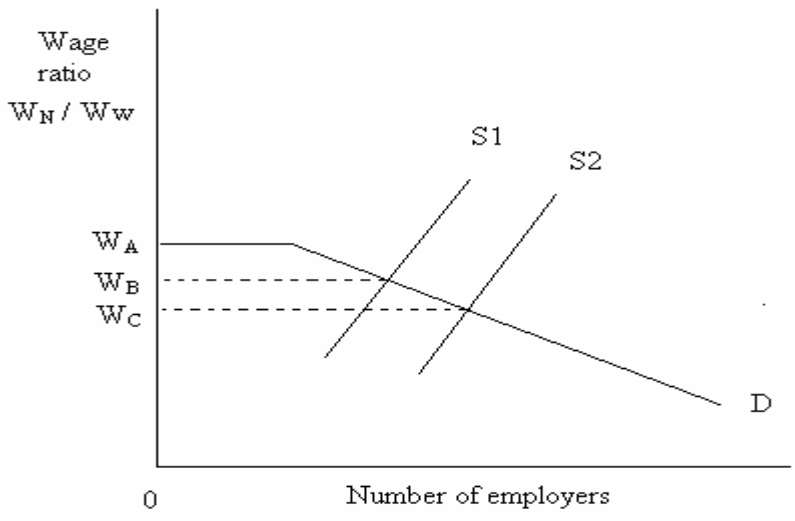
[10] The extent to which an employer discriminates in the employment of minorities not only differs from employer to employer, but also differs according to the nature of the work. Where the duties of an occupation conform to the majority view of the appropriate social role of the minority, which is often that of doing menial or service tasks, there may be discrimination in favor of the minority by majority employers.

and will not be depressed by a reduction in majority employment. The vertical axis is the ratio of Minority (N) to Majority wages (W), W_N / Ww.

The demand schedule for minorities, D, shows the total number of jobs that will be offered to minorities at each wage ratio. It is formed by arranging the offers of different employers in order by the extent of which they discriminate, with those discriminate least placed further left. The horizontal portion of D is the demand by non discriminators. The market wage ratio is determined by the position of the supply curve is S_2 it is W_C. Thus, the larger the supply of minority workers, the lower their relative wage.

Figure 2.1

The Determinate of Wage Differentials with Discrimination by Employers



Those employers to the left of the intersection of the demand and supply schedules will hire only minorities in this occupation, since the market differential is larger than is needed to overcome their desire to discriminate. Similarly, those to the right of the intersection can hire minority labour of standard quality at a below-standard wage, their money profits will increase, which should encourage them to expand.

If all the firms were in one competitive products market, this would eventually enable the non discriminators to drive the discriminators out of business. However, the firms in a given labour market may be in many product markets, and some of

these will have monopolistic positions in their markets. Becker's reasoning leads him to predict that in general monopolistic industries should discriminate in employment more than competitive ones, since monopolists can remain in secure positions towards the rights end of the demand curve for minority labour[11].

1.3 International Trade Model

Becker (1957) utilizes also an international trade model to illustrate the effects of discrimination on the trade between sectors W and N. He assumes perfect competition and, relative to labour power, that majorities own more capital than minorities, i.e., $\frac{K_W}{L_W} > \frac{K_N}{L_N}$, where K_W majorities' capital, K_N minorities' capital, L_W majorities' labour, and L_N minorities' labour. He also assumes identical linear homogeneous production functions and perfect substitutability of capital and labour between the sectors. It therefore follows that before trade, the $f_{L_N} < f_{L_W}$ and $f_{K_W} < f_{K_N}$, where f_{L_N} and f_{L_W} are the marginal productivities of labour in B and W sectors, respectively, and f_{K_W} and f_{K_N} are the marginal productivities of capital in W and B, respectively.

Thus, before trade, W capitalists could get a higher return in N and N laborers could get a higher return in W. Majorities will therefore export C_{X*}, (the amount of capital exported that will achieved equilibrium between the sectors), so that,

$$\frac{C_N + C_{X*}}{L_N} = \frac{C_W - C_{X*}}{L_W} = \frac{C}{L_W} \tag{6}$$

$f_{C_W} = f_{C_N}$ and $f_{L_W} = f_{L_N}$. The total returns per unit of labour and capital in both sectors are equal and maximized so that gains cannot be made by additional exports of capital.

[11] Moreover, the Figure 2.1 can be used as one explanation of the tendency for discrimination to be greatest where the minority group is a larger fraction of the total population. Discrimination arises only against minorities large enough to be perceived as a threat to the position of workers in the majority group.

By introducing discrimination in this model, causes W capitalists to suffer psychic cost whenever their capital is used in N, so that their net return is $f_{C_N}(1+d)$, where d is a negative fraction representing the money value of the psychic costs. The discrimination coefficient therefore reduces capital exports to a level below C_{X*}.

Comparing with the competitive equilibrium without discrimination, the marginal productivity of N labour will decrease, the marginal productivity of N capital will increase, the marginal productivity of W capital will decrease, and the marginal productivity of W labour will increase. Because production is no longer efficient, the country as a whole loses income when W capitalists discriminate. Moreover, N workers and W capitalists lose income, wile W workers and N capitalists gain. The N capitalists' gains are lower than the N workers' losses, so the B community as a whole loses from discrimination[12].

1.4 Ethnic Cartels

Krueger (1963), expanded Becker's international trade model to find an optimum level of discrimination analogous to an optimum tariff. Krueger discussed ways in which exploiting majority capital to minorities might be curtailed even if majority capitalists themselves have no personal tastes for discrimination.

Krueger assumes that W have identical production functions and that competition prevails within each sector. Then,

$$Y_W = f(L_W, K_W - E) + f_{K_N} E \tag{7}$$

$$Y_N = f(L_N, K_N + E) - f_{K_N} E \tag{8}$$

where Y is the total real income of a sector, f the common production function, and E represents the quantity of capital exported by majority sector. Majorities and minorities factors are assumed to be perfect substitutes. Krueger, following Becker,

[12] Thus, in Becker's model, the discrimination coefficient acts like a tariff and causes lower wages, less employment, or both, depending upon the elasticities of labour supplies.

Y_t is maximized when the marginal product of capital in one sector equals that in the other,

$$Y_t = Y_w + Y_N = f(L_W, K_W - E) + f(L_{N,} K_N + E) \tag{9}$$

To maximize majority income, differentiate partially with respect to capital exports,

$$\frac{\partial Y_W}{\partial E} = -f_{K_W} + f_{K_N} + f''_{K_N} \tag{10}$$

Thus for a maximum,

$$f_{K_W} = f_{K_N} + f''_{K_N} E \tag{11}$$

Since $f''_{K_N} E < 0$, the marginal product of capital in the majority sector should be lower than the marginal product of capital in the minority sector for maximum majority income. The elasticity of demand for imported capital in the minority sector, n_N, will be the elasticity of demand for capital weighted by the inverse of the proportion majority capital represents of total capital used in the minorities sector. Defining n_K as the elasticity of demand for capital, and recalling that f_K is the price of capital, $n_K = \frac{1}{f''_K}\frac{f_K}{K}$. Since $K = K_N + E$, $n_D = \frac{1}{f''_K}\frac{f_K}{E} = \frac{1}{f''_K}\frac{f_K}{K}\frac{K_N + E}{E} = \frac{n_K}{r}$, where $r = \frac{E}{K_N + E}$. Consequently,

$$f_{K_W} = f_{K_N} + [1 + \frac{1}{n_D}] \tag{12}$$

Since $n_D < 0$, majorities will maximize their incomes by having a lower price (marginal product) of capital at home than in the minority sector.

The symmetry with international trade theory should be clear. If majorities behave as perfect competitors in their allocation of capital, they will do less well than

if they impose an optimum tax, just as a country faced with a less than perfectly elastic offer curve can improve its own welfare by imposing an optimum tariff. If majorities are concerned only with maximizing their own incomes, the optimal differential between home and foreign returns will be,

$$l_W = \frac{-1}{n_D + 1} \tag{13}$$

Since majorities could increase their money incomes by the imposition of an appropriate tax on exported capital, it is of interest to inquire whether, in general, minorities could, for any given rate of discrimination by majorities, improve their position by retaliation. Let majorities demand a return on capital invested abroad $(1+t_W)$ times higher than the home rate of return on capital. They will then export capital until $(1+t_W) f_{K_W} = R$, where R is the payment they receive per unit of capital exported to the minority sector.

The majority supply of capital to the minority sector is then a function of the marginal productivity of capital in the majority sector. The higher R, the more capital will be forthcoming. The elasticity of supply of capital to the minority sector will be,

$$n_s = \frac{-1}{f''_{K_W}} \frac{f_{K_W}}{E} = \frac{-n_K}{r} \tag{14}$$

where $r = \frac{E}{K_W - E}$. Minority sector may now be written,

$$Y_N = f(L_N, K_N + E) - ER \tag{15}$$

where ER describes the movement along the majority supply of capital schedule,

$$\frac{\partial Y_N}{\partial E} = f_{K_N} - R - E\frac{\partial R}{\partial E} \tag{16}$$

where: $\partial R / \partial E$ is the increase in the minority payment to majority capital necessary to induce a small increase in capital imports. To maximize minorities, then, $f_{K_N} = R[1 + \frac{1}{n_s}]$ and an optimal minority tax on inputs of majority capital t_n will maximize minority income when $t_n = \frac{1}{n_s}$.

The minority optimal tax rate is not independent of the majority rate of taxation may be seen by recalling that the elasticity of supply of majority capital to the minority sector is the elasticity of demand for capital in the majority sector. The change in the optimal in the majority tax rate will be,

$$\frac{\partial t_N}{\partial t_W} = \frac{\partial t}{\partial n_s}\frac{\partial n_s}{\partial r}\frac{\partial r}{\partial l_W} = \frac{-n_K(1-r)\dfrac{\partial E}{\partial t_w}}{n_K^2(K_W - E)} < 0 \qquad (17)$$

The change in the optimal majority tax rate with respect to a change in the minority tax will be,

$$\frac{\partial t_W}{\partial t_N} = \frac{n_K(1-r)\dfrac{\partial E}{\partial t_N}}{r^2(\frac{n_K}{r} - r)^2(K_N + E)} < 0 \qquad (18)$$

Hence, if there were a parallel to tariff retaliation in the case of discrimination, the process would be convergent to stable tastes for discrimination.

1.5 General Competitive Model

Arrow's (1973), main objective was to explain racial wage differentials not based on productivity. Arrow's model, like Becker's, makes all of the usual assumptions about full unemployment, competition, profit and utility maximization. He seeks to develop further Becker's models and to relate them more closely to the theory of general competitive equilibrium. Arrow starts with the simplest case, where the employer discriminates.

The employer seeks to maximize the utility function $U(p, N, W)$; where π is profit, seen as the trade off between the numbers of minority workers (N) to majority workers (W). Capital is given in the short run, so output is $f(W+N)$. Using output as numeraire, profits are given by,

$$p = f(W+N) - w_W W - w_N N \tag{19}$$

where w_N and w_W are wages of minorities and majorities, respectively.

If the employment has a taste for discrimination, the marginal utility of N labour is negative and the discrimination coefficient, d_N, is positive so that $MP_N = w_W + d_N$ and $MP_W = w_W + d_W$, where d_W is negative if the employer has a positive liking for W's (or zero if he has no racial preference). Therefore $w_W - w_B = d_B - d_w > 0$ and equilibrium requires $w_W > w_B$.

It is assumed that all firms have the same utility functions, they all hire the same amounts of N and W, and the allocation of labour is efficient. The effect of discrimination is to redistribute income from N workers to W workers and employers. It is clear that majority workers do not lose and probably gain. The exact effect on profits depends on the employer's utility function. Since $MP_W = MP_N = MP_L$, profits are,

$$p = f(L) - (MP_L)_L + d_W W + d_B B \tag{20}$$

where $L = W + R$. If there is no discrimination profits are,

$$p_0 = f(L) - (MP_L)L \tag{21}$$

so the change in profits would be:

$$p - p_0 = d_W W + d_B B \tag{22}$$

If we consider an increase in the firm's labour force with the proportions of W and N workers constant, then the negative of the marginal rate of substitution of profits for this balanced increase is $d_W \frac{W}{L} + d_N \frac{N}{L}$; this is the firm's need for additional profits to compensate it for a balanced increase in size.

If the assumption of identical utility functions is relaxed, so that some firms discriminate more than others, leading to the conclusion that the least discriminatory firms grow larger, and since MP_L's vary, production is no longer efficient, and it is no longer possible to make strong statements about the incidence of discrimination. In this case, competition would tend to reduce discrimination, and only the least discriminatory firms survive.

Arrow also incorporates the case into his model with the examples of foremen who like working with W and dislike working with N. If F is the number of foremen, w_F their wage, then $w_F = w_F(\frac{W}{L})$ and short run profits are defined,

$$p = f(L,F) - w_W W - w_N N - w_F F \tag{23}$$

Firms will resist hiring N even where they have no taste for discrimination, because F costs decrease with the ratio $\frac{W}{L}$. The extent of the wage difference between N and W workers depends on the extent of discrimination. If $\frac{w_F'}{w_F}$ is the proportional rate of change in the foreman's demanded wage rate for a change in the ratio $\frac{W}{L}$, S_f the total payments to workers ($S_L = W + N$), then $\frac{w_W - w_N}{MP_L} = -\frac{w_F'}{w_F}\frac{S_F}{S_L}$.

The left hand side is the market wage differential due to discrimination tastes of foremen relative to the wage level in the absence of discrimination. Similarly, it is assumed that at equilibrium $w_W = w_W(\frac{W}{L})$, where w_W decreases as $\frac{W}{L}$ increases from zero to one. A firm will therefore minimize costs,

$$C(W, N) = w_W(\frac{W}{L})W + w_N N \quad (24)$$

A firm will always minimize costs with all W or all N work forces. If $w_W - w_N < d_N$,

every firm will minimize costs by hiring all W; if $w_W - w_N > d_N$, every firm will hire all N. Equilibrium will therefore be where $w_W - w_N = d_N$.

1.6 Statistical Discrimination Model

Modern economic theory has emphasized how information or, more properly, beliefs and expectations influence economic behaviour. These beliefs may in turn be based on some kind of evidence; the rational choice theory implies that beliefs contradicted by experience will not survive. So, the theory of statistical discrimination fell naturally out of the non-Walrasian treatment of the labour market as operating imperfectly because of the scarcity of information about the existence and characteristics of workers and jobs.

Suppose minorities and majorities do in fact differ in productivity, at least on the average. This is in turn due to some cause, perhaps quality of educations, perhaps cultural differences, but the cause is not itself observable. Then the experience of employers over time will cause them to use the observable characteristic, race, as a surrogate for the unobservable characteristics which in fact cause the productivity differences.

Statistical theories of discrimination predict that employers, if they perceive minorities as being generally less productive than majorities and if it is difficult to measure the actual productive than majorities, then minorities with above-average productivity will receive below-average returns (relative to majorities). One can argue that these lower returns, to some extent, reflect the presence of non labour market discrimination, which contributed to the unfavourable classifications to begin with. Skin colour or sex is taken as a proxy for relevant data not sampled.

The a priori belief in the probable prefer ability of a majority or a male over a minority or female candidate who is not known to differ in other respects might stem from the employer's previous statistical experience with two groups (members from

the less favourable groups might have been, and continue to be, hired at less favorable terms); or it might stem from prevailing sociological beliefs that minorities and women grow up disadvantaged due to racial hostility or at least prejudices toward them in the society (in which latter case the discrimination is self-perpetuating).

Arrow (1973) has attempted to interpret intergroup wage differences in an alternative framework as a rational reaction to uncertainty in labour market. Following Arrow, if employers believe N workers are less productive that W workers, they will hire N's only if $w_N < w_W$ an idea also developed by Phelps (1972).

This finding is based on three assumptions: (1) the employer can distinguish between N and W workers; (2) the employer must incur some cost before it is possible to determine the employee's true productivity; and (3) the employer has some conception of the distribution of productivities within the N and W groups of workers.

Lets consider now, a perfectly competitive industry consisting of homogeneous firms and a screening process costing C dollars is undertaken. As a result of the screening each worker is assigned a score: passing $\overline{Q}$ or failing $\overline{U}$. The population can be partitioned into two mutually exclusive productivity groups in terms of qualifications necessary to perform the job in question: qualified individuals Q an unqualified U. Also the firm knows the probability, $P_i(Q)$, that an individual from group i is qualified for the job.

For expositional simplicity we consider two race groups, majorities (i=W) and minorities (i=N). Arrow's model is obtained by making two specific assumptions. First, the test is a perfect predictor of productivity, hence $P_i(Q) = P_i(\overline{Q})$, secondly, the proportion of qualified majorities is higher than the proportion of qualified minorities, $P_W(Q)=P_N(Q)$.

Given these assumptions, the following conditions must hold in equilibrium for a risk neutral firm,

$$P_i(Q)[\ MP_i - w_i\ ] = C \qquad (25)$$

where w_i is the competitive wage for group i, and MP_i is the value of marginal product of qualified groups i workers.

As a result, applicants who scores $\overline{U}$ are not hired. If on the other hand, an applicant is predicted (correctly) to be qualified, the gain to the firm is given by the difference the marginal product of a qualified worker and the wage. Assuming that qualified majority workers and qualified minority workers are perfect substitutes in production, $MP_W=MP_N$, the equilibrium wage differentials is given by,

$$w_W - w_N = \frac{C}{P_W(Q)P_N}[P_W(Q) - P_N(Q)] \tag{26}$$

If the proportion of qualified workers is larger in the majority population than in the minority population, qualified majorities will receive higher wages than their equally qualified minority counterparts. That is, the existence of uncertainty about productivity in determining that productivity will lead to firm behaviour, which in effect makes qualified minorities "pay" for their group's smaller expected productivity.

1.7 The Crowding Model: Occupational Segregation

Bergmann (1971) utilized a Becker type model to show how discrimination can cause wage differentials between equally skilled occupations. She assumed two occupations requiring equal skills, one menial Z and the other prestigious X. In Z, $w_N = w_W$, but in X there is a discrimination coefficient so that minorities will be hired only if $w_N > w_W$ [13]. If $w_W - w_N > d_i$, N enters X and the wage of N in Z increase, while the wages of both W and N decline in X. Equilibrium will occur where the wage rate of Z and X equals the wage rate of N in X and $w_W - w_N = d_{iX}$, where d_{iX} is the money value of the discrimination coefficient against minorities in X.

The crowding model uses simple supply and demand concepts to explore the consequences of confining women and minorities to a limited number of occupations.

[13] The marginal productivities of Z and X (MP_Z, MP_X) will depend on the labour supplies for Z and X. If these occupations are segregated, they will remain that way so long as $w_W - w_N < d_i$.

One important reason of the crowding is that worker productivity is the result of a group or team effort. If social interactions on the job are unfavourable, productivity will suffer.

Some male (majority) workers may become disgruntled when obligated to work along with or to take orders from women (minorities). Thus, in the interest of productivity and profits, employers decide to segregate men and women (minorities and majorities) on the job. Furthermore, many employers have preconceived notions concerning the job capabilities of women and minorities.

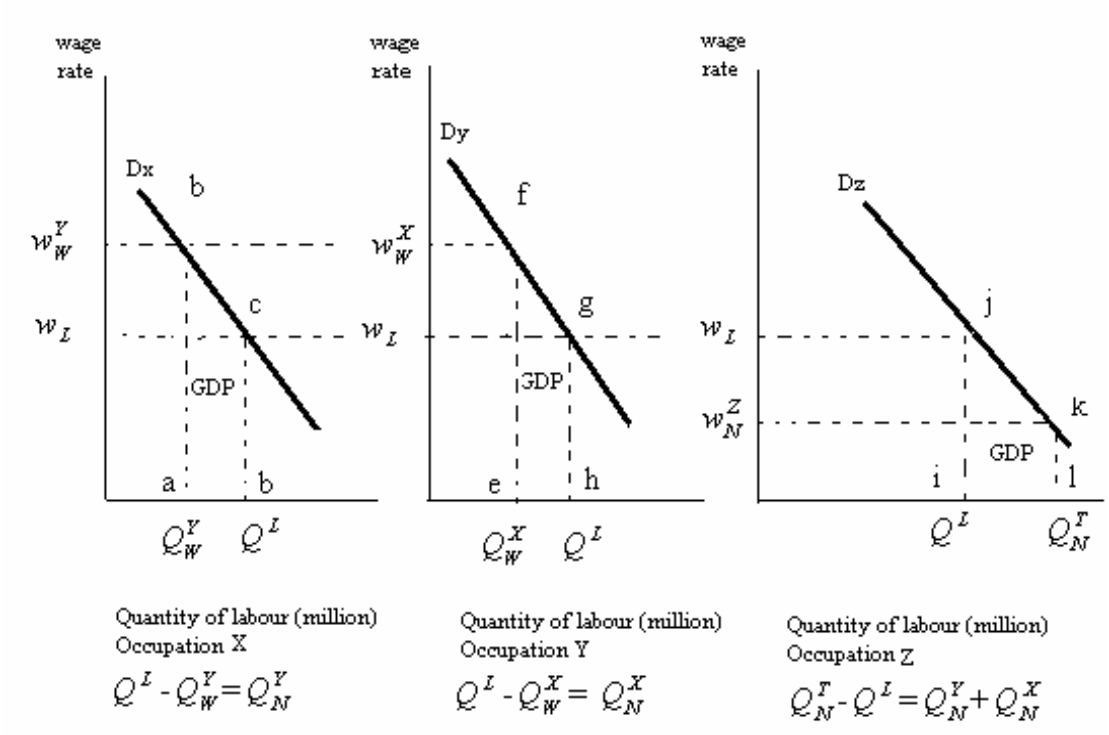
Following now diagrammatical analysis, let's say there are Q_W^T majority and Q_N^T minority workers ($Q_W^T = Q_N^T$). The total labour market is composed of three occupations, X, Y (prestigious) and Z (menial) each having identical labour demands curves as shown in Figure 2.2.

Minorities and majorities have homogeneous labour force characteristics; are equally productive in each of the three occupations. Also, products markets are competitive so that the demand curves reflect not only marginal revenue product (MRP) but also value or marginal product (VMP). Also, we assume that as a result of occupational X and Y are for the majorities' job and occupation Z is for minorities' job. Minorities are confined to occupation Z and systematically excluded from occupations X and Y.

Majorities will distribute themselves equally among occupations X and Y so that there are Q_W^X and Q_W^Y majority workers respectively ($Q_W^X = Q_W^Y = Q_W^T/2$) and the resulting common wage rate for majorities is w_W^X and w_W^Y respectively ($w_W^X = w_W^Y$). Assuming no barriers to mobility, any initially differential which would prompt labour shifts from low to high wage occupations until wage equality was realized. Note that Q_N^T minorities, on the other hand, are crowded into occupations Z and, as a consequence of this occupational segregation, receive a much lower wage rate w_N^Z. Given the reality of discrimination, reallocate themselves to occupations X and Y in the pursuit of higher wage rates. Although majorities could presumably enter occupation Z if they so chose, they would not want to do so in the face of Z's lower wage rates.

Figure 2.2

Occupational Segregation



The net result of occupational segregation is obvious: Majorities realized higher wage rates and incomes at the expense of minorities. Note, however, that minorities are not being disadvantages as the result of exploitation; they are not being paid a wage rate less than their marginal revenue product. In occupation Z minorities are being paid a wage rate equal to their MRP and to their contribution to society's output (VMP). Their problem is that by being restricted to only occupation Z, their supply is great relative to demand and their wage rate is therefore low compared to that of the majorities.

Now, suppose that through legislation or sweeping changes in social attitudes, discrimination disappears. As a result, minorities are attracted by higher wage rates, will shift from Z to X and Y. Specifically, if we assume occupational shifts are costless, Q_N^X minorities will shift into X and another Q_N^Y minorities into Y (note that, $Q_N^X = Q_N^Y$), leaving Q^L million workers in Z.

At this point, Q^L million workers will be in each occupation and wage rates will be equal to w_L in all three occupations, and therefore there is no incentive for

further allocation (note that, $Q_N^T - Q^L = Q_N^Y + Q_N^X$, $Q^L - Q_W^Y = Q_N^Y$, $Q^L - Q_W^X = Q_N^X$). This new, nondiscriminatory equilibrium is to the advantages of minorities, who now receive higher wages, and to the disadvantages of majorities, who now receive lower wages.

Moreover, society reaps a net gain by ending occupational segregation. Our labour demand curves reflect value of marginal product, the contribution of each successive worker to the domestic output. Hence, the movement of the Q_N^X and Q_N^Y minorities out of occupation Z yields a decrease in domestic output shown by area *(ijkl)*. But the areas *(abcd)* and *(efgh)* for occupations X and Y show the increases in domestic output (the market values of the marginal product), realized by adding Q_N^X and Q_N^Y million minorities to the each occupations respectively.

We observe that the sum of the adding to domestic output in occupations X and Y exceeds the decline in domestic output that occurs when minorities leave occupation Z. The conclusion that society gains from the termination of occupational segregation is not unexpected. Minorities reallocate themselves from occupation Z, where VMP is relatively low, to occupations X and Y, where their VMPs are relatively high. This reallocations continues until the VMPs of labour in each alternative use are equal, a condition which defines the efficient allocation of labour[14].

Bergmann's analysis suggests that discrimination can cause wage differentials between equally skilled occupations and that racial wage differentials may be maintained by occupational segregation rather than by overt wage discrimination. The analysis also is useful in indicating that the discrimination coefficient differs among occupations because of status considerations[15].

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[14] Thus our analysis underscores that discrimination has both equity and efficiency connotations. Discrimination influences not only the distribution but also the size of the domestic income.

[15] Based on Marshall critic (1974), occupational segregation, or crowding of minorities into a limited number of occupations, seems clearly to be a more realistic assumption than that equally qualified minorities and majorities doing identical jobs in the same firms are paid different wages.

1.8 The Market Power (Monopsony) Model of Discrimination

Market power models (Madden [1973]) indicate that employers with monopsony power will find it profitable to pay female workers less than male workers. The reason is that the labour supply curve of female workers is allegedly less elastic than of male workers because females have alternative job opportunities due to occupational segregation.

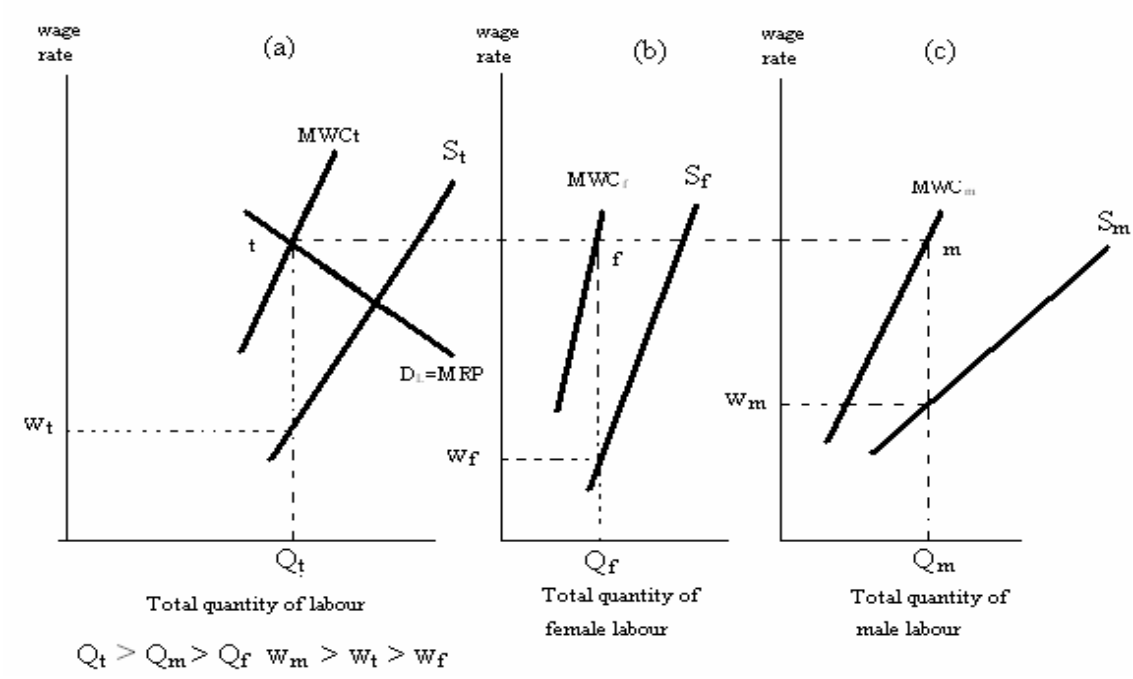
In panel (a), the firm's total labour supply is represented by S_t, the associated marginal wage cost curve is MWC_t, and D_L is the demand for labour. Note that equilibrium is at point t, where Q_f workers are employed and the wage rate is w_t. Now observe in panels (b) and (c) that we have disaggregated the monopsonist's labour supply on the basis of gender. In panel (b) the supply and marginal wages cost curves of female workers are S_f and MWC_f. Similarly, S_m and MWC_m in panel (c) show these same curves for male workers. The labour supply curve for women is purposely drawn to be less elastic than that for men. By extending the horizontal (dashed) line rightward from equilibrium point t in panel (a), we can show how total employment will be divided among men and women[16]. Its intersections with MWC_f and MWC_m tell us how many female and male workers, respectively, it is profitable to employ. Specifically, by dropping vertical (dashed) lines from equilibrium points f and m, we find that the firm will employ three women and six men. The wage rates paid to women and men are determined where the vertical line intersects the female and male labour supply curves S_f and S_m. The discriminating monopsonist will pay rates equal to the supply prices of Q_f females and Q_m males. Here, we find that women are paid a w_f wage and men a w_m wage.

The implications of this model are first, the male wage rate is higher than it would be without sex discrimination ($w_m > w_t$). Second, the female wage of w_f is lower than both the male wage w_m and the wage that would prevail without sex discrimination w_t. Third, the profits of the firm have increased. In discrimination, the firm hires the same productive, realizes the same total output and total revenue. However, discrimination reduces total wage costs from $A = (w_t \text{ x } Q_t)$ to $B = [(w_f \times Q_f) + (w_m \times Q_m)]$.

[16] That is, the dashed line reflects the MRP associated with the profit-maximizating total quantity of labour.

Figure 2.3

The Market Power (Monopsony) Model of Discrimination



Unlike the Becker model, this model shows that it is profitable to discriminate. A fourth and closely related point is that in contrast to Becker's model, the monopsonist need not be malicious, that is, unfavourable disposed toward women. Becker's employer pays to exercise his or her prejudices; the monopsonistic employer discriminates because it enhances profits. Fifth, assuming competition in the product market, if this firm does costs and will ultimately be driven out of business by its discriminating rivals.

Note that circumstances are precisely the reverse of those implicit in Becker's taste-for-discrimination model. In Becker's model, nondiscriminators would drive discriminators out of the business. In the monopsonist model, discriminators would drive nondiscriminators from the market. Finally, a corollary of our fifth point is that while the taste-for-discrimination model implies that the pursuit of profits by employers will reduce discrimination over time, the market power model suggests that there is no necessary reason why market forces would cause discrimination to

diminish. The monopsony model implies that public policy action is required to deal with discrimination[17].

As noted, these outcomes depend on a situation in which the female labour supply curve S_f is less elastic than the male supply curve $S_{m.}$ There are two reasons that this might be the case. First, some woman's husband has a job in a particular locality, she may be unwilling to accept a job in another locality. Similarly, because of the prevalence of occupational segregation, women do not have access to as wide a range of occupations and job opportunities as men do.

1.9 Conclusions

Labour market discrimination has been described as occurring when one group of workers with abilities, education, training, and experience equal to another group of workers are provided inferior treatment in hiring, occupational access, promotion or wage rates on the basis of some personal characteristics, such as gender or race, which is unrelated to productivity.

The classical statement of the Taste discrimination is Gary Becker's Theory of Discrimination. Becker's taste for discrimination envisions discrimination as a

[17] Because some women have less geographic and occupational mobility, if wages rates in this particular market were, say, reduced, we would expect more males than females to leave this work for alternative jobs. Given these conditions, the conclusion might be that women are less responsive to wage changes than men; or, in technical terms, the supply curve of women is less elastic. So, there may be more employment alternatives for male workers than for female workers, making the supply curve of male workers more elastic. The end result would be that male workers would be paid more than equally productive female workers because the supply elasticity of female workers would be such that they would be willing to work for less. A second reason for the elastic supply curve for female workers has to do with unionizations. Specifically, male workers are more likely to be unionized that female workers. Industrial unions establish a uniform wage which makes the labour supply curve perfectly elastic at that wage. The significance of this is that the union reduces the monopsonistic employer's ability to exploit workers. Thus in firms where men are unionized and women are not, the labour supply of women will be less elastic than for men, resulting in wage differentials that are unfavourable to women.

preference or taste for which the discrimination is willing to pay. Employers' tastes for discrimination are based on the idea that they and/or their employees and/or customers want to maintain a physical or social distance from certain groups; for example, that majority employers and their workers do not want to associate with minority workers.

Krueger (1963) developed Ethnic Cartels theory of discrimination, argued that economic gain rather than psychic preference is the main motive for discrimination, with the benefit achieved through collective action by economically ethnic group. Moreover, the idea that competition might eliminate market discrimination involved the development of market discrimination models under the states of affairs characteristics of neoclassical imperfect competition or so-called Statistical discrimination (Arrow [1972]; [1973], Phelps [1972], Aigner and Clain [1977], Goldberg [1978], Schwab [1986]). In these models the discrimination results from the profit maximizating response of employers to uncertainty about the quality of individuals workers when the real or subjective quality distributions favour the group which receives preferences.

Based on the Crowding theory (Bergmann [1971]), discrimination is the key point that forces minorities to 'crowd' into low paying jobs, limiting minority labour supply to other occupations, and depressing marginal productivity and wages. Majorities gain from working in higher paying jobs closed to minorities. On the other hand, based on the theory of Market Power (Madden [1973]), an employer may find it profitable to practice wage discrimination. concluded that the employer need not be prejudiced; a majority male employer need not dislike minorities or female as employees or on any other grounds. Wage discrimination simply pays in terms of maximizing profits.

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Chapter 2
Measuring Discrimination: Field Experiments

2.1 Introduction

Ever since the seminal work of Becker (1971) and Arrow (1973), who developed several hypotheses about the causes of discrimination behaviour, economists have been looking for ways to test these hypotheses[1]. Field-experiments provide a unique opportunity to conduct such tests because they illuminate the circumstances under which discrimination occurs. Traditional experiments typically begin with clearly defined "treatment" and "control" conditions, to which subjects are randomly assigned. All other environmental influences are carefully controlled. A specific outcome variable is then recorded to test for differences between groups.

Retaining the key experimental features of matching and random assignment important for inferences of causality, this approach relies on real contexts for its staged measurement techniques. In the investigation of economic discrimination, field experiments represent an important complement to the conventional regression analysis approach. Field experiments can establish the general incidence of discrimination and testing to support litigation against discriminatory practices. Whilst field experiments have the potential to improve the effectiveness of civil rights law and enforcement.

2.2 Methodology

Virtually all subsequent analyses of discrimination follow Becker's *The Economics of Discrimination* (1957, 1975), and examine employment and wage

[1] As we have already analyzed, Becker's hypothesis is that agents i.e., employers, discriminate because of their own personal prejudice (or discriminate to protect their actual and potential business with prejudiced majority i.e., employee, households) against a particular group. On the other hand Arrow's hypothesis is that agents maximize the return to their effort and therefore do not pursue transactions that are unlikely to be finalized. That means an agent is using membership in a protected class as a forecast device.

differentials. They do not explicitly consider the hiring process that is the focus on the studies under review here.

The technique of conducting carefully controlled field experiments to measure discrimination in the market place is forty years old. Discrimination tests have been adopted by social scientists from techniques employed by legal activists, who pioneered their use in the enforcement of fair-housing laws during the late 1960s. Although the market is the centerpiece of the economist's attention the initial development of this technique was by Daniels (1968) tests for racial discrimination in the English housing and labour market, using matched pairs of actors, was followed by Jowell and Prescott-Clarke (1970), who introduced written tests. However, it was not until the 1980s that this experimental technique found a place in the economic journals, with articles by Firth (1981) in the *Industrial and Labour Relations Review*, Yinger (1986) in *The American Economic Review* and Riach and Rich (1987) in *Australian Economic Papers*.

Interest in the field experiments of discrimination on the part of economists, did increase during the 1990s with publications appearing in several economic journals including the *Review of Minority Political Economy* (Bendick [1994]), *The American Economic Review* (Ayres and Siegelman [1995], Bertrand and Mullainathan [2004]), the *Quarterly Journal of Economics* (Neumark, Bank and Van Nort [1996]), *Labour Economics* (Weichselbaumer [2003]; [2004]). There have also been significant activities by the *International Labour Office* (Bovenkerk [1992]) and the *Urban Institute* (Cross, Kenney, Mell and Zimmermann [1990], Turner and Mikelsons [1992]).

One crucial benefit of the field experiments discrimination tests is that they offer a chance to examine an important aspect of labour market discrimination in hiring, that has been largely inaccessible to social scientists. Policy discussions often revolve around concepts that defy precise definitions or measurement. The current controversy over the prevalence of discrimination and the remedies for such discrimination is fueled by the lack of hard evidence. Because of the absence of standardized, economy-wide data on hiring there is much less evidence on discrimination in these important dimensions of labour market discrimination. What we know about hiring mostly comes from court cases or selected studies of firms, with their attendant uncertain generality. Discrimination tests are a potentially promising method for extending our understanding of hiring discrimination.

Economists have further engaged in the field experiments during the past three decades precisely because the alternative techniques for measuring discrimination have proved inadequate[2]. Following Heckman and Siegelman (1993), a large and sometimes polemical literature has emerged about what characteristics of persons are relevant to their productivity and how they can be measured. Especially problematic is the possibility of statistical discrimination that may arise if the same levels of observed characteristics convey different information about true productivity for different demographic groups. In order to assess true productivity, economists need to acquire much more information about individuals and jobs than is generated in standard data on labour market transactions. The available data on the operation of the labour market are meagre and unsatisfactory, so in our understanding of the prevalence and source of discrimination.

Field-experiments avoid many pitfalls facing regression studies. In particular, researchers can match similar (pseudo) individuals and catch economic agents in the act of discrimination (Yinger [1986]). Two procedures have been used to carry out direct tests for the extent of discrimination in labour market. The first involve personal approaches where individuals attending job interviews; ***Audit Test***[3], while

[2] Surveys of attitudes towards minority groups in the market are not likely to produce honest and accurate responses (La Piere [1934]). To be specific, majorities and minorities may overestimate or underestimate their performance in the market. On the other hand the econometrician's application of the technique of regression analysis – wage decompositions - to published data to deduce discrimination, pioneered by Blinder (1973) and Oaxaca (1973) has been subject to considerable criticism, which resolves around the specification of the model and the choice of independent variables (Gunderson [1989]). The regression methodology employs some consumption outcome, typically a price, as the dependent variable and group membership indicators, along with relevant controls, as the explanatory variables. The test for discrimination is whether the coefficient for the relevant group membership variable is significant.

[3] The audit methodology was first pioneered in the 1970s with a series of audits conducted by the Department of Housing and Urban Development to test for racial discrimination in real estate markets (Hakken [1979], Yinger [1995]). In the case of audits two testers are matched; one from the majority group, the other from the minority group. The matched pairs are trained in what to say in response to various questions so that both testers in the matched pair can give equivalent backgrounds to the prospective employer for such personal characteristics

the second involves responding to job vacancies with written applications; *Correspondence Test* which is of our interest.

The correspondence test approach, so named for its simulation of the communication between job applicants and employers, involves sending carefully-matched pairs of written job applications (curriculum vitaes) in response to advertised vacancies, to test for discrimination in labour hiring at the initial stage of selection for interview. The pseudo-seekers are typically matched on such attributes as age, education, and marital status. Interestingly, the goal is to produce pairs of testers who are identical in all relevant characteristics so that any systematic difference in treatment within each pair can be attributed only to the effects of race (or other group characteristic). Reactions from employers are then typically measured by written response or callbacks.

The advantage of the correspondence test approach is that it requires no actual job applicants. This is desirable for both methodological and practical reasons. Methodologically, the use of fictitious paper applicants allows researchers to create carefully matched applicant pairs without needing to accommodate the complexities of real people. The researcher thus has far more control over the precise content of treatment and control conditions[4]. Moreover, correspondence test allow more control over characteristics that are thought to be relevant to the employment decision than is possible in conventional ex-post regression analyses[5]. Whilst, by sending pairs of

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as well as schooling, qualifications and job experiences. However, experiments involving personal approaches have been subject to critism, since their outset, about the matching and motivation of testers and the possibility of unobserved variables. These criticisms first made by Ward (1969) and more recently by Heckman (1998). Darity and Mason (1998) as well as Riach and Rich (2002) recommend written tests as a solution to the matching-motivation problem.

[4] Practically, the reliance on paper applicants is also desirable in terms of the logistical ease with which the application process can be carried out. Rather than coordinating job visits by real people, the correspondence test approach simply requires that resumes are sent out at specified intervals. Additionally, the small cost of postage or fax charges is trivial relative to the cost involved in hiring individuals to pose as job applicants.

[5] For example, regression studies typically use years of education as a control variable in explaining wage discrimination. But this is an extremely crude control, ignoring as it does differences in educational quality and performance between workers with the same number of

curriculum vitaes to the same firms, ones gains partial control over idiosyncratic differences in firm evaluations of common bundles of characteristics that plague ordinary observational studies. Eliminating common unobserved components makes it possible to construct better tests of the hypothesis of no discrimination.

Correspondence test analysts assume that they know which characteristics are relevant to employers, and when such characteristics are sufficiently close to make majority and minority applicants indistinguishable. Applicants must be matched on each of the relevant characteristics; alternatively analysts assume that they know how employers trade off characteristics[6]. The technique of correspondence test which tests the hiring decision ensures strict equivalence between testers is free of any motivational complication and enables objective documentation of the experiment.

Crucially, in order to avoid detection, the letters and the general presentation can not be identical, but in all essential characteristics such as qualification and experience candidates are closely matched so that the only effective distinguishing characteristic is a specific demographic characteristic. Moreover, to control for the possibility that the style of a particular letter might influence employer response, letter type is alternated and allocated equally between the two groups[7]. Jobs to be applied for are usually chosen from daily newspapers in the geographic region. Two standard letters or curriculum vitaes are prepared[8] and can be adapted to test also for the effect of some of the other control variables, such as qualifications and marital

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years of education. In correspondence tests, by contrast, the two testers can be matched exactly on certain characteristics, providing a much cleaner measure of the demand-side response to ethnicity and sexual orientation than techniques based on passive observations.

[6] For the housing market, where the original audit studies were conducted, fewer characteristics are essential attributes of purchasers. For the case of the labour market, many more characteristics are likely to be relevant and different employers are likely to place different weight on those characteristics.

[7] The advantage of this technique is that the researcher is able to exercise precise control over the content of applications, to control for any unintended bias in letter type by equal allocation between the group, and to demonstrate the controlled and objective nature of the procedure to the reader.

[8] Some of the tests have been sent more than two letters to each occupation selected (Brown and Gay [1985]; Hubbuck and Carter [1980]; Firth [1982]).

status[9]. Mentionable when sending the forms there must be some time delay between them. Therefore the order of send, to the firms of the forms must be considered. Many of the tests ensure that in half of the tests the first post is made by the minority applicant and in the other half, by the majority applicants, but a number of the researchers have opted always to send the minority's form first[10]. The matched pairs of standard application letters are posted simultaneously within two days of the advertisement appearing in random order, and to minimise inconvenience to employers, invitations to interview are declined.

2.3 Tests

Following Riach and Rich (2002) it is sound academic to full details of any field experiment. This includes the procedure adopted, and complete results of all test, broken down by occupational category where relevant. The first question one needs to ask in analyzing data is "what constitutes an outcome that exhibits discrimination?". One intuitively plausible measure of the existence of discrimination is the proportion of times that the two applicants who are identical are treated differently by potential employers.

Complete results mean the number of applications made, recorded by the outcome for the matched testers at each stage of the hiring process: In a study of majority/minority employment opportunities this means, at the invitation to interview stage recording –both rejected/both invited for interview/ only the majority applicant invited to interview/ only the minority applicant invited for interview. If both applicants were invited to job interview this represents a case of no discrimination, or equal treatment. If only one applicant was invited to interview this represents a case of discrimination.

The findings on discrimination should, of course, be tested for statistical significance. Many researchers have used *chi-squared* tests (Bovenkerk [1992], Heckman and Siegelman, [1993]). Moreover, tests for *homogeneity* across the tester

[9] For instance; Jowell and Prescott-Clarke (1970) and Firth (1982).

[10] This ensures that, if the job is filled in between the posts, discrimination recorded against minority applicants can not be overestimated. In the British and International Labour Office test, the minority's application is posted first.

pairs can establish the validity of aggregating the results for all the pairs of testers. Furthermore, *conditional sign tests* can also be applied (Heckman and Siegelman, [1993]). Yet as well regression analysis, using *binary models* can be used to evaluate the discrimination hypothesis (Weichselbaumer [2003], Bertrand and Mullainathan [2004]).

2.4 Conclusions

Field experiments can both enhance our ability to measure discrimination and increase the effectiveness of civil rights law and enforcement designed to counteract it. Discrimination tests link to public policy is especially close. Because of this, strong documentation of discrimination can influence the terms of the debate over strengthening equal opportunity legislation. Beyond its value as a tool for measuring discrimination and conducting public policy research, discrimination tests can contribute importantly to efforts to enforce the law. The utility and value of the correspondence testing should grow in the current legal and political environment.

Testing is a particular effective instrument for detecting the more subtle forms of discrimination. Field experiments can make plain the need for sustained, expanded, or redirected civil rights enforcement activity. The testing also provide us direct evidence of discrimination that may, in some cases, offer an evidentiary alternative or supplement to plaintiffs whose cases would otherwise rest on statistical evidence alone. Among the chief advantage of testing are the comparative level of confidence its results inspire, the political persuasiveness of those results, its ability to detect subtle forms of discrimination, and its efficiency as an enforcement tool.

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Chapter 3
European Antidiscrimination Directives

3.1 Introduction

The principle of equal treatment and non-discrimination are the heart of the European Social Model. They represent a cornerstone of the fundamental rights and values that underpin European Union. For many years, the European Union has been at the forefront to tackle sex discrimination and to promote equality between women and men. More recently, it has taken action to protect people against discrimination on grounds of racial or ethnic origin, religion or belief, disability, age and sexual orientation. New challenges have emerged since the adoption of the antidiscrimination laws at the European level. These challenges include enlargement of the European Union and the objective should be to ensure that the European Union's framework for combating discrimination on all of the relevant grounds is effectively implemented and enforced the enlarged Union.

The antidiscrimination Directives significantly raised the level of protection against discrimination across the European Union. At the political level, the achievement of a high level of employment, the promotion of social cohesion, and the creation of an area of freedom, security and justice have become objectives of high priority. The legal and political commitment to the fight against discrimination is stronger than ever.

Despite this high-level commitment, the available evidence suggests that discrimination continues at alarming levels. The fight against discrimination requires vigorous enforcement of antidiscrimination law active identification and analysis of discriminatory patterns in all areas of life, monitoring of the progress made in elimination of discrimination, adoption of sensitizing and awareness-raising programmes and if the circumstances so warrant adoption of positive action measures to remedy the situation of those individuals and groups that suffer from disadvantages caused by discrimination. All of these core antidiscrimination activities have one thing in common, they require, or at any rate benefit from, the existence of empirical evidence of discrimination and economic policies.

3.2 From the Treaty of Rome to the Amsterdam Treat

The #141 Art of the Treaty of Rome (1957) laying down the principle of equal pay between women and men, can be seen as the starting point of antidiscrimination policies at the level of the European Community. The Treaty of Rome contained only a few scattered provisions on social policy, including on the European Social Fund. However, Community social policy began emerges with the adoption of the 1974 Social Action Programme, focused mainly on measures in the field of labour law. The issue of racism entered European Community policy debate during the second half of the 1980s, by moves towards establishing the single internal market, in which there would be freedom of movement of workers, services, goods and capital.

The 1986 Single European Act contained a specific reference to the social to the social dimension and stated that one of the aims of the Community was to improve the economic and social situation by extending common policies and pursuing new objectives. An attempt to set down guiding principle of the social areas referred to the Act found expression in the "Community Charter for the Fundamental Social Rights of Workers", formally endorsed in 1989 by all the Member States except the United Kingdom. Although the Chapter had no legal base, it was a significant step in the recognition of work related social issues and it also includes references to social protection for young people, older people, disabled people and the unemployment. The chapter provided the basis for the Commission's second Social Action Programme.

In the early 1990s, the up-coming European Union enlargement indicated to many policy makers that racisms, xenophobia and other forms of discrimination might jeopardize the Community's aims of full market integration, social cohesion and a common labour market. In 1991, the so-called Starting Line Group, a coalition of non-governmental actors of European Union members States, was created in order to lobby for the legal measures to combat racism at the European level. Only one year after its foundations the Starting Line Group came up with a draft European Community Directive prohibiting discrimination based on race, color, descent, nationality, national or ethnic origin regarding a wide range of fields. The pressures for increasing the role of the Community in the social sphere continued into the negotiations leading up to the Maastricht Treaty (1992), which laid down a specific procedure and timetable for Economic and Monetary Union and a single currency.

The European Union was given the objective of promoting economic and social progress that is balanced and sustainable. The Treaty strengthened provisions on economic and social cohesion, and gave the Community a new but limited role in education and public health. With the continuing process of increasing economic integration, there has been a growing recognition of the need for more common policies in social and economic fields. Continuing high levels of unemployment, and the growth of poverty and social exclusion, have contributed to an increased recognition that the European Union should address socio-economic problems with programmes of its own. In addition, non-governmental organizations active in the areas of social and human rights have become increasingly active in lobbying for actions at the European level. After the so-called Kahn Commission, which was composed of representatives of all Members States and charged with the formulation of recommendation in Members States, had released its reports in 1995, it became increasingly acknowledged that racism in fact posed an issue relevant to the Union.

The Commission presented a communication on racism, xenophobia and anti-Semitism in December 1995. The Council adopted on 15 July 1996 Joint Action concerning to combat racism and xenophobia under which the Member States undertake to ensure effective judicial cooperation in respect of offences based on racial or xenophobia behavior. The result of these posses was the inclusion of a new Article, number 13, in the European Community Treaty, following the entry into the force of the 1997 Amsterdam Treaty. Article #13 represented a quantum leap forward in the fight against discrimination at the European Union level in that it empowered the Community to take action to deal with discrimination on a whole new range of grounds, including racial or ethnic origin, religion or belief, age, disability and sexual orientation. The European Council in Tampere, on 15 and 16 October 1999, invited the Commission to come forward as soon as possible with proposals implementing Article #13 of the European Community Treaty as regards the fight against racism and xenophobia.

The Employment Guidelines 2000 agreed by the European Council in Helsinki, on 10 and 11 December 1999, stress the need to foster conditions for a socially inclusive set of policies aimed at combating discrimination against groups such as ethnic minorities. At the March 2000 Lisbon European Council, the European Union defined a comprehensive 10-year strategy aimed at long-term economic growth, full employment, social cohesion and sustainable development. One of the

aims of the so-called “Lisbon Agenda” is to raise the employment levels of groups that are under-represented in the employment rate of older workers and reduction in the unemployment gaps for people at a disadvantage, such as people with disabilities, ethnic minorities and migrants, by 2010. This led to the unanimous adoption by the Council in 2000 of two Directives, which aim to ensure that ever gone lining in the European Union can benefit from effective legal protection against discrimination.

3.3 The Scope of the Antidiscrimination Directives

In accordance with, Article #1 of the Council Directive #43 “Racial Directive”, the purpose is to lay down a framework for combating discrimination on the grounds of racial or ethnic origin, with a view to putting into an effect in the Member States the principle of equal treatments. In accordance with, Article #1 of the Council Directive #78 “Employment Equality Directive”, the purpose is to lay down a framework for combating discrimination on the grounds of religion or beliefs, disability, age or sexual orientation as regards employment and occupation, with a view to putting into effects in the Members States the principle of equal treatment.

In conforming to, Article #2 of the Council Directives #43 and #78, the principle of equal treatment shall mean that there shall be no direct or indirect discrimination based on racial or ethnic origin, religion, belief, disability, age or sexual orientation. Direct discrimination shall be taken to occur where one person is treated less favorably than another or would be treated in a comparable situation on grounds of racial or ethnic origin. On the other hand, indirect discrimination shall be taken to occur where an apparently neutral provision, criterion or practice would put persons of a racial or ethnic origin at a particular disadvantage compared with other persons, unless that provision, criterion or practice is objective justified by a legitimate aim and the means of achieving that aim are appropriate and necessary.

3.4 The Purpose of the Antidiscrimination Directives

Within the limits of the powers conferred up on the Community, the Directive #78 shall apply to all persons, as regards both the public and private sectors, including public bodies in relation to:

(a) Conditions for access to employment, to self-employment and to occupation, selection criteria and recruitment conditions, whatever the branch of activity and at all levels of the professional hierarchy, including promotion,
(b) Access to all types and to all levels of vocational guidance, vocational training, advanced vocational training and retraining, including practical work experience,
(c) Employment and working conditions, including dismissals and pay,
(d) Membership of and involvement in an organization of workers or employers, or any organization whose members carry on a particular profession, including the benefits provided for by such organizations,

The #43 Council Directive shall apply to all the above cases and also includes:
(e) Social protection, including social security and health care,
(f) Social advantages,
(g) Education,
(h) Access to and supply of goods and services which are available to the public, including housing.

The two Directives does not cover difference of treatment based on nationality and is without prejudice to provisions and conditions relating to the entry into and residence of third-country nationals and stateless persons on the territory of Members States and to any treatment which arise from the legal status of the third-country nationals and stateless persons concerned (Article #3 of the C.D. #43 and #78).

Agreeably to the #78 Directive, it does not apply to payments of any kind made by state schemes or similar, including state social security or social protection schemes (Article #3). Members States may provide that a difference of treatment which is based on a characteristic related to the above reasons shall not constitute discrimination where, by reasons of the nature of the particular occupational activities concerned or of the context in which they are carried out, such a characteristic constitutes a genuine and deterring occupational requirement, provided that the objective is legitimate and the requirement is proportionate (Article #4 of the C.D. #43 and #78).

3.5 Institutional Regulations

With a view to ensuring full equality in practice of equal treatment shall not prevent any Member State from maintaining or adopting specific measures to prevent

or compensate for disadvantages linked to issues of the Directives (Article #5 of the C.D. 43, Article #7 of the C.D. 78). Member States may introduce or maintain provisions which are more favorable to the protection of the principle of equal treatment than those laid down in the Directives (Article #6 of the C.D. 43, Article #8 of the C.D. 78).

Moreover, they shall ensure that judicial and/or administrative procedures, including where they deem it appropriate conciliation procedures for the enforcement of obligations under these Directives are available to all persons who consider themselves wronged by failure to apply the principle of equal treatment to them, even after the relationship in which the discrimination is alleged to have occurred has ended. They shall, ensure that associations, or organizations or other legal entities, which have, in accordance with the criteria laid down by their nationals law, a legitimate interest in ensuring that the provisions of these Directives are complied with, may engage either on behalf or in support of the complainant with his or her approval, in any judicial and/or administrative procedure provided for the enforcement of obligations under these Directives (Article #7 of the C.D. 43, Article #9 of the C.D. 78).

Also, Member States shall take such measures as are necessary, in accordance with their national judicial systems, to ensure that, when persons who consider themselves wronged because the principle of equal treatment has not been applied to them establish, before a court or other competent authority facts from which it may be presumed that there has been direct or indirect discrimination, it shall be for the respondent to prove that there has been no breach of the principle of equal treatment (Article #9 of the C.D. 43, Article #11 of the C.D. 78).

Continuing, Member States shall introduce into their national legal systems such measures as are necessary to protect individuals from any adverse treatment or adverse consequence as a reaction to a complaint or to proceeding aimed at enforcing compliance with the principle of equal treatment. They shall, in accordance with national traditions and practice, take adequate measures to promote the social dialogue between the two sides of industry with a view to fostering equal treatment, including through the monitoring of workplace practices, collective agreements, codes of conduct research or exchange of experiences and good practices (Article #11 of the C.D. 43, Article #13 of the C.D. 78).

Furthermore, Member States shall encourage dialogue with appropriate non governmental organizations which have, in accordance with their national law and practice, a legitimate interest in contributing to the fight against discrimination on grounds of racial and ethnic origin with a view to promoting the principle of equal treatment (Article #12 of the C.D. 43, Article #14 of the C.D. 78). Member States shall take the necessary measures to ensure that any laws, regulations and administrative provisions contrary to the principle of equal treatment are abolished. Also, that any provisions contrary to the principle of equal treatment which are included in individual or collective contracts or agreements, internal rules of undertaking, rules governing profit-making or non-profits-making associations, and rules governing the independent professions and workers and employers' organizations, are or may be declared null and avoid or amended (Article #14 of the C.D. 43, Article #16 of the C.D. 78).

Additional, Members States shall lay down the rules on sanctions applicable to infringements of the national provisions adopted pursuant to these Directives and shall take all measures necessary, which may comprise the payment of compensation to the victim, must be effective, proportionate and dissuasive (Article #15 of the C.D. 43, Article #17 of the C.D. 78).

3.6 Conclusions

All European Union countries have had to transpose the European Directives into their laws must fulfill the obligations arising from international law too. Indeed, the international and European Union instruments have had a major impact on their domestic laws. The international and European standards however defines only the minimum level of protection against discrimination and may countries have gone beyond the requirements set forth by them by extending the protection to such grounds of discrimination and/or such areas of life that are not covered these instruments.

The right to equal treatment is a universal right and a fundamental value of the European Union. Equal treatment is about securing the rights and opportunities of all individuals and it is a key ingredient in achieving inclusive labour market and social cohesion. In Europe, this is reflected in the fact that all European Union Members States have adopted the, two European Union directives, and they have all become

parties to the main human rights conventions, concluded under the auspices of the United Nations and the Council of Europe, each of which prohibit discrimination.

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Chapter 4

Ethnic Discrimination in the Greek Labour Market:

Occupational Access, Insurance Coverage, and Wage Offers[1]

4.1 Introduction

All over Europe immigrants complaint that suffer from racism and discrimination in the labour market. Immigrants believe that discrimination is pervasive in hiring while their complaints refer mainly to wages, payments of overtime, recruitment, contracts, harassment and promotions (ETUC [2003]). Indeed, prejudice in the labour market, in its many forms, is likely to be the most frequently occurring human rights violation in Europe (Makkonen [2007]). However, the fight against discrimination is of particular focus to social planners, at least in part to the dramatic growth of racism following the end of Communism and the initiation of immigration (Green Paper [2004]). Each wave of unskilled immigrant newcomers identified as a major source of crime, improvidence, and other forms of socially undesirable conduct (EUAFR [2007]).

In Greece, in particular, discrimination had not ever been prominent in discussion until the country was more recently turned into a migrant destination as well. In fact, it was not until 1991 that Greece had experienced its very first flows of immigrants which were moreover dominated by Albanians [2] . For Greece,

[1] I am grateful to M. Vlassis – Associate Professor of Economics at the University of Crete. Moreover I would like to thank the staff of the General Secretariat of National Statistical Service of Greece. I want to express my gratitude to my colleagues: A. Anagnostaki, G. Konsolaki, M. Kastelianos, V. Bozani, V. Fourmouzi, and C. Passa for beneficiary suggestions. Earlier version of this paper was presented at the General Confederation of Greek Workers - ΓΣΕΕ (2007), and in seminars at the Greek Ministry of Justice (2008). I acknowledge benefits from two anonymous referees whose comments and suggestions have significantly contributed to the improve upon previous versions of this paper. This chapter could not have been made without my family's contribution and support.

[2] By 1998 some 240.000 Albanians had registered for legalization, representing 0.650 of the non-European Union alien population resident in Greece while the 2001 Census counted 440.000 Albanians again around 0.650 of the non-European Union aliens (Baldwin-Edwards [2004]).

contemporary history [3] has created a fear of Albanians in both the personal security sense and as regards their possible role in the Greek policy [4] (Baldwin-Edwards [2004]). Nonetheless, the Greek labour market seeking for low-paid labour allowed Albanian (as well as other) immigrants to find jobs in large numbers regardless of skill levels (OECD [2005]). Those immigrants were frequently under-insured, or illegal, and under abusive conditions (Psimmenos and Kassimati [2004]). As it comes to the latter issue, Lianos, Sarris and Katseli (1996), using data from four prefectures in Northern Greece, shown that immigrant wages were by 0.4-0.6 lower than the native ones. Whilst, Demousis, Giannakopoulos and Zografakis (2008), using data from the Greek Household Budget Survey (2004-2005), shown that 0.48 of the average wage differential between native and immigrant workers can not be explained by differences in observed characteristics. The larger component of this unexplained part is due to the asymmetrical occupational access of the native versus the immigrants workers.

The scope of the present paper is to investigate whether Albanian immigrants are (still) facing discriminatory practices in the Greek labour market, two years after the national adoption of the European Union antidiscrimination legislation (2005/3304), (see, Chapter Three).

In particular, by means of a correspondence test, we first aim to detect discrimination in the selection process, e.g., regarding access to occupations. For the minorities that seems to be the most crucial barrier to equal treatment (Eurobarometer [2003, 2007]). The reason being that selection processes are very often not guided by standards whilst the standards themselves might lead to the exclusion of certain members of minority groups from obtaining a specific job (Liegl, Perching and Weyss [2004]).

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[3] See, Veremis (1995), Aligica (2003), Koliopoulos and Veremis (2002) and Pentzopoulos (2002).

[4] The Greek response to Albanian immigration was biased, which predetermined their social integration. One of the major unresolved problems of the Greek society was the inability of immigrants, in general, to function effectively in the mainstream of urban community life. It was not likely that a vast number of natives with biased values would rapidly emerge among people who have long neglected, discriminated against, and accorded fewer incentives and rewards than granted by society to others for achievement (Baldwin-Edwards [2004]).

Correspondence test analysts assume that they know which characteristics are relevant to employers, and when such characteristics are sufficiently close to make majority and minority applicants indistinguishable (see, Chapter Two). As a result, the correspondence testing ensures strict equivalence between testers, is free of any motivational complication, and enables objective documentation of the experiment (Riach and Rich [2002]). In the present study, however, taking advantage of the telephone callbacks on the part of employers, and the naïve portfolio of the applicants, we have extended the application of this method by also gathering data concerning informal wage and insurance coverage offers on the part of employers in the cases of (tentative) hiring. We argue that this additional data set enabled us to (further) record discriminatory attitudes across ethnicities (also) in the ensuing steps of the hiring process[5].

The remainder of the paper is organized as follows. In the next section we briefly review the theoretical explanations of labour market discrimination. In the third section we report various forms of discriminatory practices in the Greek labour market. In the fourth section we describe the methodology and the application structure of our investigation. In the fifth section we present the model addressed by our investigating relationships. In the sixth section we present and discuss our field results. The last section concludes.

4.2 Theories of Discrimination and Correspondence Testing

As demonstrated by Heckman (1998) the correspondence testing does not identify the extent of taste discrimination exclusively (see, Chapter One, 1.2). Observed discrimination can also occur if employers use group information when evaluating applicants, i.e. statistical discrimination is at play (see, Chapter One, 1.6). Thus, any or a combination, of the above explanations can be validated by the outcomes that follow. More importantly, those results can significantly contribute to our perception about what may amongst else affect the opportunities of certain minority groups to access occupations and thus uncover well concealed discrimination which is hard to detect by other means. At the same time, the potential

[5] Following Adam (1981), we assume that employers by offering an interview are indicative of their willingness to consider applicants employable.

of directly collecting discrimination data may further support antidiscrimination policies, since these policies can only be as good as the information on which they are based (Makkonen [2007]).

4.3 Uninsured Employment and Discrimination Practices in the Greek Labour Market[6]

The main task of social security is to offer insurance coverage to its members through benefits. In Greece, compulsory insurance formally starts on the very first day of employment in the country's largest *Social Security Organization* (*I.K.A*). The latter in general covers those who are in a dependent employment relationship: It meets their needs in medical care and benefit payments, such as old age pensions, disability pensions, maternity aid, sickness-accident allowance, etc.

Employee registration with *I.K.A* implies mandatory contribution payments for both the employer and the employee, based on employee wage levels, which can not be lower than the legal minimum wage in proportion to employee characteristics (human capital and marital status). Uninsured employment, or insured employment with inaccurate data, then formally constitute illegal treatment and are penalized by fines. In practice, however, illegal treatment takes the form of "silent" (or tacit) agreements between employers and employees. Either the employees agree to be registered with *I.K.A* only after they have certified their productiveness, or they are registered on condition that they have to deposit a fraction or the total employers' contributions to *I.K.A* for a period.

Moreover, employees may be often registered as being less human capital endowed, with less work experience, and in general with few characteristics than they actually possess. Obviously, in all those cases the employers exploit the employees' need for income, since the wage level depends on the tacit agreement's terms. While, those employers who totally refuse to register their employees thereafter have a wider range of discriminatory wage contracts to offer. On the other hand, there is evidence that employers in certain sectors seek to employ immigrants, mainly because of their pliability, vulnerability, and negligible bargaining power. Employers have the

[6] This part could not have been made without Ms. A., Anagnostaki contribution.

advantage of holding absolute power over such employees, since the latter most probably are reluctant to make formal complaints or take legal action.

The above practices imply that ethnic discrimination in the Greek labour market may take various forms, while its reasoning rather seems to fit with a -profit maximization- theoretical explanation. Nonetheless, as said, our field experiment investigates for all possible sources of discrimination.

4.4 Design of the experiment

a. Methodology and Application Structure

Descending the seminal paper of Riach and Rich (2002) different forms of field experiments have been used to test for discrimination in hiring.[7] Due to their controllability and the unequivocal measurement which they entail[8] these real-life experiments have become quite popular and they have been carried out in at least fifteen countries[9]. Our experiment was conducted between May 2006 and January 2007 and involved the major city of Greece, Athens (for a literature review regarding field experiments and ethnicity see, Appendix D).

In order to measure discrimination in occupational access for Albanians, and also in order to collect wage and insurance coverage data, we had fabricated two

[7] There are two other procedures that had been previously used to measure discrimination in the labour market. These methods involve personal approaches, in which individuals either apply over telephone (Brown and Gay [1985], Hubbuck and Carter [1980]) or they attend job interviews (Daniel [1968], McIntosh and Smith [1974]).

[8] Correspondence testing can be effective in demonstrating discrimination at the initial stage of a selection process, as well as in measuring the results of the selection process (Bertrand and Mullainathan [2004]). In our context, one cares about whether an candidate will eventually get a job, as well as about the wage offered conditional on getting the job. Whilst, in real life, job and wage offerings are also obtained via informal search and networks (Allosino, Reyneri, Venturini and Zincone [2004]). Hence, given these shortcoming the method should be viewed as a complement rather than as a substitute to register and interview data.

[9] In Europe such experiments have been carried out in Belgium, Germany, Denmark, England, France, Italy, Spain, Sweden, Switzerland and the Netherlands; as well as in Australia and the U.S.A.

imaginary-presumably equal in human capital- candidates applying to the same job by sending curriculum vitaes using different fax devices. We had concentrated on low-skill groups as they expected to be at more risk for discrimination: Particularly, on non-graduate male applicants in the private sector (ETUC [2003]).

The occupations covered a large spectrum of job quality: office jobs, industries, café and restaurant services and shop sales. These vacancies were identified through a random sample of advertisements appearing in website newspapers[10].

The curriculum vitaes were posted simultaneously within one day of the advertisement appearance. If firms were interested about any of the applicants they could be reached, either through an available postal address, or by telephone contact [11]. Each applicant was allocated a-racially-distinctive- first and last name[12], a mobile telephone number, and a postal address. The addresses were chosen so that to be recognized as similar as possible, in order to indicate the same social class.

The curriculum vitaes had to be realistic yet still not belong to any real person. The qualifications and the presentation style of the two applicants were matched as closely as possible, so that they were identical in all employment relevant characteristics but ethnicity. While, each application was designed so as to equally convey the type of experience that might make an applicant attractive.

Both candidates had finished Greek high schools approximately twelve years ago. Hence the Greek language was not a constraint for the Albanian candidate[13]. Furthermore, the candidates were 29 years old, unmarried, and had carried out military service in different areas. [14] Both applicants had nine years of work

[10] These occupations have been chosen because, while there as well have been many low skilled vacancies in agriculture, construction, cleaning, and delivery, in most of the latter cases only telephone contact was available.

[11] To minimize inconvenience to the employer invitations were promptly declined.

[12] We had assigned a very Greek sounding name: Ioannis Hristou, and a very Albanian sounding name: Nikolai Dridanski. Moreover, applicant's ethnicity was noticed in the curriculum vitae.

[13] Actually, a Greek tester performed the Albanian applicant.

[14] In Greece, having carried out the military service typically increases applicants' probability of being hired. Thus, in order the two applicants to be as equal as it is possible, we had to consider this crucial factor too. Whilst, though large-scale Albanian immigration to Greece

experience, in a similar post to each vacancy applying for.

To avoid detection, the candidates' high schools and previous workplaces were located at different areas in Athens. Finally, both applicants had similar hobbies/interests and personal characteristics.

For obvious reasons, the styles of the curriculum vitaes were different for each pair. Yet, in order to control for the possibility the style of an application to influence an employer's response, those -different in style- application forms were equally allocated between the Greek and Albanian candidates. The constructed resumes were then sent to the employer in alternating order (Appendix A).

Whenever employers had called for arranging appointments with the applicants our two testers were trying to raise informal questions concerning wage and insurance coverage offers. In those telephone contacts, in order to verify that the two testers were identical to all "observed" characteristics (e.g., accent, articulation, age and mansuetude) and that they were also responding equally (either to employers' clarifications or to their own questions) we had conducted pre-tests. That is, having recorded a testers' pilot rehearsal, considerable numbers of individuals were asked to confirm the relevant issues. Our true experiment then began only after a unanimous advocacy had been reached. On the other hand however we must note that it is off course impossible to test a firm's truthfulness until an applicant is actually hired.

b. Selection Bias

As said, after enrolments of subjects and collection of the baseline correspondence test data, we wanted to examine how ethnicity affects the candidates' monthly wages as well as their likelihood to be registered with insurance coverage. Although we wish to forecast outcomes in the whole pool of applicants the problem is that observations about those two issues are available only for those applicants who are invited for interview. There is some loss to follow up with the applicants dropping out of the study and we are forced to rely solely on experience with a non-random subset of them. This may bias the study when association between ethnicity and outcomes differs in dropouts compared with study participants. There are a few selection effects:

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started at 1991, there has been enough time, up to 2004, for an immigrant youngster to complete high school as well as his military service in Greece.

First of all, since invitations for interview are easier for the national we would expect to have more data on wages and insurance coverages for the Greek than for Albanian. A selection bias will then occur, as a result of the procedure used to select participants, when the selection probabilities of the Greek and the Albanian are different.

Moreover, a basic selection problem arises in that the sample consists of applicants who are invited for interview and these applicants may differ in important unmeasured ways from those who are not invited. Hence, information would not be taken from the entire population. Rather, the population would be limited and biased by including only individuals who are invited for interview. On the other hand when trying to estimate the results of ethnicity on wage and insurance coverage offers we also face a selection problem, as some Greek and Albanian applicants who are invited for an interview do not receive wage and/or insurance coverage offers. Bias will thus be introduced if the association between ethnicity and outcomes differs between study responders and non-responders.

Unfortunately, these selection bias issues can not be overcome under the present modelling. Our available data set in fact limits the possibility to resolve them as the only independent variable which influences wage and insurance coverage offers by construction is (only) the applicants' ethnicity. However, the degree of the selection bias can be partially revealed by examining some descriptive statistics (see *6.a* below).

4.5 The Model

The strength of this study is yet that applies an experimental design to a real-world setting, thus allowing evaluating whether actual employers discriminate in the hiring process. Literally, field experiments like ours "catch" economic agents in the act of discrimination (Yinger [1986]). We particularly examine whether *ethnicity* affects: First, like in Bertrand and Mullainathan (2004), Carlsson and Rooth (2007), the probability [P_{CB}] of an applicant to receive a call-back for a job interview. Second, the (monthly) wage offer [W] on the part of the applicant's employer. Third, the applicant's probability [P_{IC}] to be similarly offered insurance coverage registration (with *I.K.A*). We respectively specify the following estimable relationships.

$$P_{CB}(callback = 1) = a_1 + b_1 ethnicity + u_1 \quad (1)$$

$$W = a_2 + b_2 ethnicity + u_2 \quad (2)$$

$$P_{IC}(I.K.A = 1) = a_3 + b_3 ethnicity + u_3 \quad (3)$$

By construction of this correspondence test all applicants have to be matched in all characteristics other than *ethnicity* ; ethnicity takes the value of 1 (0) if the applicant is Greek (Albanian) and its impact is measured by the b_1 , b_2 and b_3 coefficients. Moreover, having controlled for same but ethnicity characteristics, across applicants, ethnicity is not expected to be correlated with the error term in each equation (see e.g., Weichselbaumer [2003], Bertrand and Mullainathan [2004], Carlsson and Rooth [2007], Petit [2007]). Yet, as regards the second and third relationships, wage and insurance registration offers are observed only if an applicant receives a call-back. Therefore, since ethnicity presumably influences wage & insurance coverage offers and we do not have a vector of factors, other than ethnicity, known to influence both invitations for interview and wage & insurance coverage offers, the selection bias that appears (see e.g., *4.2*) can not be corrected. Nonetheless, what can be done so is the intra-class correlation which also appears: Regarding the first relationship, two applications are sent to the same firm, hence, the probability of the Greek applicant to receive a call-back is rather correlated with the probability of the Albanian applicant to receive one. Moreover, in the second relationship, wage offers are expected to be correlated among the two applicants. Similarly, in the third relationship, insurance coverage offers are expected to be correlated among the two applicants too. Consequently, in order to correctly analyze the data those correlations are needed to be taken into account. In the estimations that follow full information-adjusted standard errors are therefore reported.

4.6 Results

a. Descriptive Statistics

Following Riach and Rich (2002) we provide the full detail of our field experiment. This includes the procedure adopted and the complete results of all tests broken down by occupational category (where relevant). The primary question one

here needs to raise is about "what constitutes an outcome that exhibits discrimination." In a study of majority/minority employment opportunities an intuitively plausible measure of (the existence of) discrimination is then the proportion of times that the two applicants are treated differently by potential employers. Complete results in turn mean recording both rejected/invited, not only the majority /minority applicant invited, at the invitation to interview stage.

The outcome of our correspondence testing is thus first set out in a format which follows McIntosh and Smith (1974) and which has since been adopted in field experiments across Europe (see e.g., Riach and Rich [2002]):

In Table (i) - Appendix B- the last row shows the aggregated results, and from the second column it can be read that applications were sent to 789 job openings. The third column shows that in 401 cases neither individual was invited for interview. In the remaining 388 cases (column four) at least one applicant was invited. In 193 cases (column five) both were invited (equal treatments), in 182 cases (column six) only the Greek was invited and in 13 cases (column seven) only the Albanian was invited. Hence, net discrimination[15] against the Albanian can be read from the last two columns and is 169 cases or 0.435. The statistical significance of any finding of net discrimination was determined by the application of the chi-squared test (Heckman and Siegelman [1992]).

Table (ii) - Appendix B- shows wage outcomes (last row). Column two shows that the Greek applicant was offered wages in the order of 662.7€ while the Albanian applicant in the order of 588.9€ (column three)[16]. Moreover, concentrating on those cases where both applicants were offered wages, we observe that Greek wages were in the order of 641.8€ (column four) while Albanian wages were in the order of

[15] The commonest way to measure the overall incidence of discrimination is to count the numbers of times a minority applicant is treated less favorably on a single type of firm behavior than the majority applicant and then subtract the number of times the majority applicant is treated less favorable, mainly on random incidents. The result is a net measure of the number of acts of discrimination a minority applicant can expect to encounter during each application to a firm.

[16] As it can be noted from the last rows of Table (ii2) – Appendix B-, the mean wage offer for the Albanian applicant is found to be 0.250 below his relevant minimum wage rate as defined by the N.G.C.E.A (2006-2007). Whilst, the Greek mean wage offer is found to be 0.160 below his relevant minimum wage rate.

588.9€ (column five)[17]. While, focusing on those cases where only the Greek was received wage offers, those wages were in the order of 692.2€ (column six).

Table (iii) - Appendix B- shows insurance coverage aggregated results (last row). The second column shows that in 375 cases the Greek was received invitation for interview. However, in 136 cases (column three) the Greek was not informed whether (or not) he would be registered with insurance coverage in case of hiring. Column four shows that in 84 cases the Greek applicant would not be registered, and in the remaining 155 cases he would be registered with insurance coverage in case of hiring (column five). On the other hand, as column six tabulates, the Albanian was invited for interview in 205 cases. However, in 72 cases (column seven) the Albanian was not informed whether (or not) he would be registered with insurance coverage in the case of hiring; in 81 cases he would not be registered (column eight) while in 52 cases he would be registered (column nine).

Finally, Table (iv) - Appendix B- shows insurance coverage results for those cases where both applicants were invited for interview (last row). Column three shows that in 72 cases the Greek was not informed whether (or not) he would be registered with insurance coverage in case of hiring. Column four shows that in 39 cases the Greek applicant would not be registered while in 82 cases he would be registered (column five). On the other hand, column seven shows that in 72 cases the Albanian was not informed whether (or not) he would be registered while in 69 cases he would not be registered (column eight). In the remaining 52 cases the Albanian would be registered with insurance coverage in case of hiring (column nine).

b. Estimations

We subsequently evaluate the effects of ***ethnicity*** by estimating equations (1)-(3) using our full data set as well as separately for each one of our four reference occupations. Our coefficient estimations, effectively regarding Albanian-Greek paired differences, are summarized in Table 1 below.

In equation (1), the β_1 coefficient estimations show that the Albanian is faced a marginal probability to be invited for an interview that is by 0.214 less than that of the Greek. This probability varies across occupations: In office jobs the Albanian is

[17] We did not manage to collect wage data in those cases where the Albanian applicant was invited alone.

faced 0.375 less chances to be invited for interview, 0.246 in shop sales, 0.161 in industries, and 0.124 in restaurants and café services (Panel A). In all cases the estimations are statistically significant at the 1% significance level.

Table 1: Coefficient Estimations

Occupations / Coefficient	(1) Office Jobs	(2) Industries	(3) Restaurant and Café Services	(4) Shop Sales	(5) Total
Panel A					
β_1	-0.375	-0.161	-0.124	-0.246	-0.214
s.e.	(0.191)	(0.121)	(0.034)	(0.153)	(0.112)
p-values	0.000*	0.000*	0.000*	0.000*	0.000*
Observations	346	434	482	316	1578
Panel B					
β_2	-95.919	-74.795	-29.955	-57.880	-73.603
s.e.	(31.096)	(33.170)	(15.454)	(24.216)	(25.078)
p-values	0.009*	0.044**	0.076	0.029**	0.007*
Observations	82	76	96	52	306
d	d=0.131	d=0.110	d=0.050	d=0.092	d=0.110
Panel C					
β_3	-0.273	-0.228	-0.296	-0.188	-0.257
s.e.	(0.123)	(0.191)	(0.139)	(0.109)	(0.025)
p-values	0.000*	0.000*	0.000*	0.000*	0.000*
Observations	77	110	113	72	372

Notes: Statistically Significant at 1 %(*); 5 %(**).

These findings provide significant evidence that, of the two identical applicants engaging in an identical job search, the one with the Albanian name is offered fewer callbacks. While our applicants by construction appeared to be similar, they look different to employers. Therefore, on the part of employers *taste* and/or *statistical* discrimination is implied against the Albanian. Moreover, the estimations reveal significant differences among the ethnic counter pairs, across vacancies, while at the same time suggest that, no matter the status of the vacancies, discrimination is well founded, with the majority applicants always having advantages. Nonetheless, naturally considering office jobs being a higher-status occupation, our findings entail that such vacancies apply primary to natives. Interestingly, the estimations indicate that the minority's segregation into low-status occupations has little to do with personal characteristics: In restaurant and café services the Albanian is found to face approximately three times more access, than in office jobs, while in factories two times more, respectively.

Turning next to equation (2), the β_2 coefficient estimations entail that the Albanian is faced an "ethnic penalty" of 73.6€ (producing a ***wage discrimination factor***[18], ***d***=0.110), which is a statistically significant outcome at the 1% significance level. The higher penalty is found in office jobs [95.9€ (***d***=0.131)], followed by industries [74.7€ (***d***=0.110)], shop sales [57.8€ (d=0.092)], and restaurant and café services [29.9€ (***d***=0.050)]. In all cases but the latter the estimations are statistically significant (at least) at the 5% significance level (Panel B). Hence, the performance of the Albanian even when his objectively equal to that of his Greek counterpart is less likely to be jugged as demonstrating task ability.

As foretold, in the literature wage discrimination takes alternative scenarios. In real life, as the above findings suggest, it seems that all alternatives may compose this phenomenon. First of all, the result may be induced by a taste for discrimination. Employers might be willing to overcome a dislike against the Albanian if his wage has to fall bellow that of the Greek. Second, wage discrimination may be due to statistical discrimination based on the unobservability of the Albanian productivity. The estimations indicate that employers consider the Albanian as being less productive than the Greek; hence the former would have to suffer the "ethnic penalty" in case of hiring. Nonetheless, regardless the reasons, in office jobs wage discrimination reaches its higher value, which is moreover conditional upon the lower call-back probability of the Albanian, relative to the Greek's one. It therefore seems that wage discrimination and occupational constraints are higher in more prestigious jobs.

Interesting results are revealed when in estimating equation (2) we focus on those cases where both applicants were received wage offers. As Table (v) shows the discrimination factor is found to be 0.085 against the Albanian (Appendix C, Panel A). It is rather obvious that when employers invite both applicants for interview the ethnic penalty is lower for the minority group. Whilst, if we re-estimate equation (2) concentrating on those cases where only the Greek was received wage offers then the discrimination factor is found to be 0.163 (Appendix C, Panel B). The interpretation

[18] This factor, $d = (w_{Greeks} - w_{Albanians}) / w_{Greeks}$, typically measures the strength of the firms' bias regarding (informal) wage offers, i.e., the % by which the wage of Albanians would have to fall below the wage of Greeks before firms are prepared to consider both as equally employable.

is that when firms invite for interview only the majority candidate the wage discrimination against the minority candidate reaches a higher value compared to the former case.

Last, but not least, focusing on the insurance coverage issue addressed in equation (3), the β_3 coefficients turned to be significant in all occupations. The Albanian candidate is thereby found to face a marginal probability of receiving insurance coverage which is by 0.257 lower than that of the Greek candidate. Particularly, in restaurant and café services the Albanian is found to face a 0.296 such difference, followed by 0.273 in office jobs, 0.228 in industries, and 0.188 in shop sales (Panel C). The result corroborates hiring discrimination based on ethnicity in the Greek labour market.

In restaurant and café services the Albanian is found to face the lower probability of being offered insurance coverage, relative to the Greek counterpart, yet along with the lower wage discrimination factor. While, in shop sales the Albanian is faced the higher such probability; recall however that his call-back probability is there found to be relatively low. In office jobs, on the other hand, the insurance coverage discrimination practice is found to be relatively low; yet recall that in this higher-status occupation the Albanian is found to face the lower call-back probability, relative to the Greek, along with the higher wage discrimination factor.

On the other hand, if we focus on those cases where both applicants were invited for interview then the Albanian is found to face a marginal probability of receiving insurance coverage which is by 0.247 lower than that of the Greek (Appendix C, Panel C). Hence, when employers invite both applicants for interview the ethnic minority is faced more chances of receiving insurance coverage than in the former case.

4.7 Conclusions

In 2000 the European Union had instituted specific legislation aiming to lay down a framework for combating discrimination in the labour market. Briefly, that legislation made clear that people affected by discrimination should have adequate means of legal protection against unequal treatments, and an effective right of redress. This study is the first in Greece using the correspondence testing technique to

examine whether ethnic discrimination exists in the labour market, two years after the national adoption of the European Union antidiscrimination employment legislation.

The study reveals that a history of discrimination can not turn overnight. Focused on the selection process our results reveal substantial ethnic differences in access to occupations, as well as such differences in wage offers, allocations among sectors, and accumulation of human capital. Albanians relative to Greeks have to spend more time, effort, and resources, for an interview, as the same observable signal is more precise for Greeks than Albanians. In particular, the estimated probability of Albanians to receive an interview invitation is found to be by 0.214 lower than that of the natives. Furthermore, a wage discrimination factor was estimated to be 0.110 for Albanians, while the estimated probability of them receiving insurance coverage is found to be by 0.257 lower than that of Greeks. The latter estimations reveal that the, lower relative to Greeks, accessibility of Albanians to our reference occupations entails discriminatory practices in the ensuing steps of the hiring process too. Moreover, we have found that the Albanians' discriminatory treatment varies across occupations, with the higher-status occupation (office jobs) entailing lower accessibility and higher wage discrimination.

Athough the European Union's priority is to enhance the ability to integrate its entire membership into new arrangement of active citizenship in a diversity society our findings provide a strong indication that ethnic minorities are disadvantaged when actual employers make hiring decisions. Hence, our study suggests that in order to clarify whether ethnic minorities are (not) doing as well as natives in the same job it is (also) necessary to study the hiring decisions of employers.

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Appendix A

Curriculum vitaes - Synopses

Applicant: A

Curriculum Vitae
First Name: Greek/Albanian
Last Name: Greek/Albanian
Ethnicity: Greek/Albanian
Marital Status: Unmarried
Date of Birth: .../.../1978
Address: Location
Telephone: Mobile
Military Services: Location, Carried Out in 1998

Education:

Certificate of Greek high school in 1996
Location
Basic Knowledge of English and P/C
Driving License

Professional Experience:

From August 1998 to January 2000
Appointment/ Firm
From March 2000 to March 2003
Appointment/ Firm
From April 2003 to …2006/7
Appointment/ Firm

Interests: Travels and Sports.
Personal Characteristics: Productive and Associable.

Applicant: B

Curriculum Vitae

First Name Albanian/Greek
Last Name Albanian/Greek

Date of Birth …/…/1978
Marital Status Unmarried
Ethnicity Albanian/Greek
Address Location
Telephone Mobile

Experience

Appointment/ Firm
February1998- November1999
Appointment/ Firm
December1999-July 2004
Appointment/ Firm
August2004-...2006/7

Education

Certificate of Greek high school in 1996
Location
English Basic Knowledge
P/C Basic Knowledge

Personal

Military Services Carried Out in 1998
Hobbies Music, Cinema, Sports
Personality Industrious, Efficient

Driving License

Appendix B

Table (i) Correspondence Testing Outcomes

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against Albanians (2) No.	Discrimination Against Greeks (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)] / (1)	x^2 test
Office Jobs	173	74	99	30	67	2	65	0.656	61.23*
Industries	217	129	88	47	38	3	35	0.397	29.87*
Restaurant & Café Services	241	117	124	84	35	5	30	0.241	22.50*
Shop Sales	158	81	77	32	42	3	39	0.506	33.80*
Total	789	401	388	193	182	13	169	0.435	146.46*

Note: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3)
(*) Statistically Significant at 1%.

Table (ii) Monthly Wage Offers

	All observations		Paired - observations		Exclusive observations
	Greeks	Albanians	Greeks	Albanians	Greeks
Occupations (observations)	(€)	(€)	(€)	(€)	(€)
Office Jobs	727.41 (62)	631.50 (20)	712.5 (20)	631.50 (20)	734.52 (42)
Industries	678.66 (45)	603.87 (31)	668.38 (31)	603.87 (31)	701.42 (14)
Restaurant & Café Services	597.27 (55)	567.31 (41)	598.29 (41)	567.31 (41)	594.28 (14)
Shop Sales	626.45 (31)	568.57 (21)	620.47 (21)	568.57 (21)	639 (10)
Total	662.74 (193)	588.93 (113)	641.85 (113)	588.93 (113)	692.25 (80)

Table (iia) Minimum Wages (€) for Unmarried Employees & Workers as defined by the N.G.C.E.A (2006-2007)

Work Experiences / Periods	No Experience	Three Year Experiences	Six Year Experiences	Nine Year Experiences
I. January to September 2006	608.32	659.00	718.91	778.82
II. September 2006 to May 2007	625.97	678.11	739.76	801.41
Average I & II	617.14	668.55	729.33	790.11

Table (iii) Insurance Coverage Outcomes – Full Sample

	Greeks				Albanians			
Outcomes / Occupations	Obs. No.	No Response No.	No Registration No.	Registration No.	Obs. No.	No Response No.	No Registration No.	Registration No.
Office Jobs	97	41	14	42	32	11	11	10
Industries	85	17	12	56	50	8	17	25
Restaurant & Café Services	119	53	31	35	88	41	36	11
Shop Sales	74	25	27	22	35	12	17	6
Total	375	136	84	155	205	72	81	52

Table (iv) Insurance Coverage Outcomes – Restricted Sample

	Greeks				Albanians			
Outcomes / Occupations	Obs. No.	No Response No.	No Registration No.	Registration No.	Obs. No.	No Response No.	No Registration No.	Registration No.
Office Jobs	30	11	7	12	30	11	9	10
Industries	47	8	5	34	47	8	14	25
Restaurant & Café Services	84	41	19	24	84	41	32	11
Shop Sales	32	12	8	12	32	12	14	6
Total	193	72	39	82	193	72	69	52

Appendix C

Table (v) Coefficient Estimations

Occupations / Coefficient	(1) Office Jobs	(2) Industries	(3) Restaurant and Café Services	(4) Shop Sales	(5) Total
Panel A					
β_2	-81.000	-64.516	-30.975	-51.904	-52.920
s.e.	(25.384)	(30.490)	(17.840)	(20.689)	(19.691)
p-values	0.008*	0.056	0.110	0.025**	0.013**
Observations	40	62	82	42	226
d	d=0.120	d=0.101	d=0.053	d=0.087	d=0.085
Panel B					
β_2	-103.020	-97.550	-26.968	-70.428	-103.311
s.e.	(35.290)	(39.248)	(17.097)	(48.014)	(30.965)
p-values	0.013*	0.030**	0.143	0.116	0.003*
Observations	62	45	55	31	193
d	d=0.146	d=0.116	d=0.046	d=0.119	d=0.163
Panel C					
β_3	0.105	0.230	0.302	0.300	0.247
s.e.	(0.033)	(0.236)	(0.112)	(0.209)	(0.053)
p-values	0.000*	0.000**	0.000*	0.000*	0.000*
Observations	38	78	86	40	242

Notes: Statistically Significant at 1 %(*); 5 %(**).

Appendix D

Ethnic Discrimination in the Labour Market

The technique of making carefully matched pairs of job applicants to test for discrimination in employment was carried out by Daniel (1968)[1]. However, Jowell and Prescott-Clarke (1970), introduce the use of the correspondence test. They tested discrimination in majority-collar jobs in four major regions of England. Two letters of applications were sent to each vacancy tested, one always from a British-born majority, and the other one from Asian. Ethnicity was identified by the applicants' name. They found the male Asian to face 0.500 incident of discrimination.

Also, Firth (1981) applied to five types of accounting jobs in England. He sent six applications on each test, one from an English, Asian, African, Australian, French and West Indian all being males. He found the Asian to face 0.480, the African 0.364, the Australian 0.120, the French 0.196 and the West Indian 0.423 incident of discrimination. Further, Esmail and Everington (1997) sent curriculum vitaes in response to advertised medical positions in British hospitals, testing for discrimination against male Asian doctors who were British trained. They found the Asian to face 0.276 incident of discrimination. The above surveys found that the immigrant groups experienced a great incident of discrimination, being statistically significant tested by the chi-squared test.

The International Labour Organization (Bovenkerk [1992]) conducted also a number of correspondence tests in major regions of European countries including; Germany and the Netherlands, Italy and Belgium. A variety of jobs in sales, hotels, restaurants, offices, professional and blue-collar areas were tested. In all countries significant discrimination against male racial minorities was found at the initial stage, and all researchers used chi-squared analysis to check whether there was any impact on the observations from the different pairs of testers. In Germany the Turkish applicant was found to face 0.189 discrimination incidents, while in the Netherlands the Surinamese applicant was found to face 0.178, and the female Surinamese 0.128.

[1] Surveys of immigrants, employers and employment agencies were complemented with personal testing, using professional actors, in six regions of Britain. A three-way match of a single tester was used by Daniel (minority minority, majority minority, majority national), to determine whether any discrimination found was due to colour or to national origin.

In Belgium the Moroccan found to face 0.330 and in Italy the Moroccan found to face 0.410. Correspondence test was used also in France over the period 1976-7 (Bovenkerk, Kilborne, Raveau and Smith [1979]). Two applications one from a Frenchman, the other from a male Antillian were sent to non-manual jobs which were advertised in newspapers. The Antillian was found to face 0.667 discriminatory incidents.

More currently, in Sweden, Rooth and Carlsson (2006) found that the male and female Arabian faced 0.294 discriminatory incidents. Both studies' results were found to be statistically significant tested by the chi-squared test. In the United States[2] a correspondence test was currently conducted by Bertrand and Mullainathan (2004). In this study, the researchers prepared two sets of matched resumes reflecting applicant pools of two skill levels. Using racially distinctive names African American and Majority American to signal the race of male and female applicants, the researchers mailed out resumes in Chicago and Boston, targeting job advertisements for sales, administrative support, and clerical and customer service positions. The results of their study indicate that majority-sounding names were 0.500 more likely to elicit positive responses from employers relatively to equally qualified applicants with minority names. Using binary models the results found to be statistically significant.

Test for racial discrimination have also been conducted in Australia over period 1986-8 (Riach and Rich [1991]). The study conducted in Melbourne used the correspondence test and covered occupations; clerk, sales representative and secretary. Two applications were sent to each selected vacancy; one always from an male Australian, other one from either a male Vietnamese or a male Greek. A high level of discrimination was recorded against the Vietnamese 0.274 and a less against the Greek 0.088. In this study the level of discrimination found to be statistically significant using the chi-squared test.

In view of the number of studies involved and their geographical extent this is compelling evidence of enduring and pervasive racial discrimination in employment (Riach and Rich [2002]). However, the extent of discrimination varies temporally,

[2] In the United States major audit tests of employment have been conducted by the Urban Institute in Chicago and San Diego, testing for differential treatment of Hispanics (Cross, Kenney, Mell and Zimmermann [1990]), and in Washington and Chicago, testing for differential treatment of African-Americans (Turner and Mikelsons [1992]).

spatially and between the various minority groups. These employment experiments have not been designed to distinguish between the various hypotheses which have been promulgated to account for discrimination, but the pattern of results does enable some tentative speculation. The statistical theory postulate differences, on average, between racial categories, in their employment characteristics. Consequently race is used as a cost-minimizing screening device. Also, the findings of these correspondence tests are consistent with the majority majority population having a general distaste, which motivates employers to discriminate against non-majority population. But we stress that field experiments have not, to date, been designate so as to enable any firm conclusion about the nature of discrimination (Riach and Rich [2002]).

Chapter Five

Dual Life for Equal Labour?

Sexual Orientation Discrimination in the Greek Labour Market[1]

5.1 Introduction

Despite worldwide legal protection impetus sexual orientation discrimination does exist in employment. Evidences suggest that the labour market values gay men's human capital less than that of straights. Specifically, gay men have repeatedly claimed that they are fired, not hired, or not promoted because of their orientation[2], while the estimated effects of men's ″homosexuality″ on earnings are found to be negative. As it comes to the latter issue, surveys from the United States[3], the United Kingdom (Arabsheibani, Mani, and Wadsworth [2004]), and the Netherlands (Plug and Berkhout [2004]) document annual earning penalties associated with same-sex sexual behavior for males, still nonetheless the estimated penalties significantly vary amongst them and conclusions challenged[4]. Yet, the systematic study of sexual

[1] I am grateful to M. Vlassis – Associate Professor of Economics at the University of Crete. Moreover I would like to thank the staff of the General Secretariat of National Statistical Service of Greece. I want to express my gratitude to my colleagues: A. Anagnostaki, G. Konsolaki, M. Kastelianos, V. Bozani, V. Fourmouzi, and C. Ms Passa for beneficiary suggestions. I acknowledge benefits from two anonymous referees whose comments and suggestions have significantly contributed to the improve upon previous version of this paper. Earlier version of this paper was presented at the General Confederation of Greek Workers - ΓΣΕΕ (2007), and in seminars at the Greek Ministry of Justice (2008). This chapter could not have been made without my family's contribution and support.

[2] See, Badgett, Donnelly and Kibbe (1992); Palmer (1993); Snape, Thomson and Chetwynd (1995); Mason and Palmer (1996); Colvin (2004).

[3] See, Badgett (1995); Allegretto and Arthur (2001); Berg and Lien (2001); Black, Hoda, Seth, Lower (2003); Blandford (2003), Carpenter (2005, 2007).

[4] The annual earning penalties vary between 0.030-0.300, amongst the referential studies generate insignificant and significant results. The economic explanations for gay men wage gap include theories of gender nonconformity (Blandford [2000]), theories of household specialization (Becker [1991]); Black *et al* [2003]) theories of human capital endowments

orientation minorities has made it valuable for both its policy relevance and its potential to inform social scientists about the functioning of labour market.

The current research has taken account of two particular drivers. The first is that no official data and empirical studies exist to investigate gay men's employment terms in Greece. The second is the significant Eurobarometer's findings (2007/263), regarding Greeks' feeling for homosexuality. The survey reveals that the wide majority of Greeks; 0.850 feels that homosexuality is a taboo compared to 0.480 of European Union, while the wide majority; 0.840 shares the opinion that it is difficult for gay and lesbians to state their sexual orientation at work, compared to 0.680 of European Union. Starting from the mentioned points the scope of the present study is to investigate whether gay-labeled men are facing discriminatory practices in the Greek labour market compared to straights, and by thus to evaluate whether stereotypical misconception against gays[5] prejudice the Greek employers' screening processes, interestingly three years after the national adoption of the European antidiscrimination (see Chapter Three) employment legislation (2005/3304).

In particular, by means of a correspondence test, we first aim to detect sexual orientation discrimination at the preliminary stage of the selection process which for gays seems to be a crucial barrier to the labour market. A typical correspondence test combines experimental design with real-life settings by isolating a characteristic of interest and test for discriminatory behavior (see, Chapter Two). For our purpose a correspondence test entails that the researcher sends two equal in human capital curriculum vitaes to each advertised job opening. However the only characteristic that differs is applicants' sexual orientation (Riach and Rich [2002])[6]. Following Adam (1981) and Weichselbaumer (2003), gay applicant's sexual orientation is labeled through a reference in his curriculum vitae to a voluntary work at a homosexual community (for a literature review see, Appendix E). The methodology strictly implies that the emanated signal is accurate for credibly testing the discrimination hypothesis. The theoretical claim to be evaluated is that an applicant being activist in such community might be a characteristic that results in biased evaluations of his

(Berg and Lien [2002]; Becker [1993]) and theories of discrimination (Becker [1957], Arrow [1972]).

[5] See, Hoffman (1968); Lundahl and Wadensjo (1984); Seidman (1994).

[6] For this methodology see also, European Handbook on Equality Data (2007).

skills and profitability, diminishing hiring chances. In the current experiment we want to investigate whether gay-labeled applicants will experience this type of workplace disadvantage since understanding of what it means to be gay is seen by society as incompatible with understanding of what it means to be a promising employee (see, Seidman [1994], Mason and Palmer [1996]).

Crucially in the current study we concentrate on low-skilled groups as they expected to be at more risk for discrimination: Particularly, on non-graduate workers in the private sector [7] (Eurobarometer [2003]; [2007]). While we investigate different sectors, that is, on factors that influences variation in discriminatory behavior across vacancies.

Interestingly in this experiment, alike Chapter Four, we have extended the application of the correspondence testing technique by also gathering data concerning informal monthly wage offers on the part of employers in case of tentative hiring. We argue that this additional data set enables us to further record discriminatory attitudes across sexual orientations in the ensuing steps of the selection process. While, by extending the correspondence test methodology we provided empirical evidence[8] on the equivocally relationship between sexual orientation and earnings. Crucially, in the current study, our measure of sexual orientation is straightforward likely to be correlated with the concept of interest, living an openly gay lifestyle and arguably better that the sexual behavior measures used in previous research. Due to gays' reluctance to reveal their sexual orientation, collecting data on them is difficult, and analyzing such data presents challenges[9].

To preview, to the extent that gay candidates are believed to be less ideal workers, employers will practice discriminatory attitudes when making an evaluation that affects selection and wage levels. Hence, the performance of gay-labeled candidates even when their objectively equal to that of their straight counterparts are

[7] Of course, whether gay applicants would experience the same type and amount of discrimination in higher-status jobs is an open question.

[8] Notice, that interview data is a rather biased method, since straight and gay workers may overstate (understate) their position and performance in the labour market.

[9] Shortcoming include potential selection bias, the absence of information on the extent to which gays reveal their sexual orientation in the workplace, and the exclusion of observations of single homosexual as opposed to homosexual couples.

less likely to be jugged as demonstrating task ability or competence. Our findings reveal that gay applicants are faced a significant probability to be invited for an interview that is by 0.261 less than that of the straights, and an insignificant wage discrimination factor of 0.026 on average. Having controlled for all human capital asymmetries amongst applicants, a taste and/or statistical discrimination imply against gay candidates.

Moreover, in a process to illuminate the outcomes we further show that employers sex varies: The estimated probability of males to practice occupational access discrimination against gay candidates is by 0.350 higher than that of females. Furthermore, males are found to practice insignificant wage discrimination of 0.032 against gay candidates. On the other hand, female employers are found to provide gay candidates with an insignificant wage premium of 0.006 on average.

The current study contributes to two areas that have attracted scarce research attention: the experimental investigation of employment discrimination in Greece, and investigation of discrimination by sexual orientation. Actually, to the best of our knowledge the current experiment is the first in Europe which deals with gay men labour discrimination and tests employers' sex impact. The experiment offers a purposive analysis of key materials and findings which may be significant in relation to public policy concerns and policy development.

The rest of the paper is organized as follows. In the next section we sketch out the European antidiscrimination legislation, and we briefly review the theoretical explanations of labour market discrimination. In the third section we describe the methodology and the application structure of the investigation. In the fourth section we present and discuss the field results. In the fifth section we present the results of the second study examining the correlation between employers' sex and access availability constraints against gay candidates. The last section concludes.

5.2 Dual Life and Theories of Discrimination

Homosexuality is a status characteristic that when salient, results in biased evaluations of competence[10]. Psychological and sociological studies suggest that gay

[10] As defined by status characteristics theory, a status characteristic is a categorical distinction among people such as personal attributes or role, that has attached to it widely held beliefs in

men do try to avoid discrimination by living a dual life at work (Levine and Leonard [1984]). On the labour market they pass for non gay for fear that their employment would be in jeopardy if it became known that they are gay, while outside labour market they come out[11]. Unlike ethnic and racial minorities, the disables and the elderly that are vulnerable to discrimination and harassment, gay men may be said to be in the ″best position″ as they can avoid discrimination by hiding their sexual orientation, regardless the drawbacks (Pharr [1988]; Byrne [1993]).

As far as it concerns sexual orientation discrimination and theoretical approaches, as we have already shown, the taste for discrimination (Becker [1957]) is based on the idea that employers want to maintain a physical or social distance from certain groups, or they may fear that their customers or co-workers dislike transacting with gays (see, Chapter One, 1.2). On the other hand, based on the statistical discrimination hypothesis (Arrow [1972]; [1973]) discrimination results from the profit maximizing response of employers to uncertainty about the quality of individual workers, while the real or subjective distributions favour the group which receives preferences i.e. straights (see, Chapter One, 1.6).

However, taste and/or statistical hypothesis of discrimination against gay men can be crystallized in the terms: Homophobia, Heterosexism and Sexual Prejudice. Following, Weinberg (1972) homophobia is used to label heterosexuals' dread of being in close quarters with homosexuals as well as homosexuals' self loathing. In general, distastes and phobia focus on homosexual peoples' behaviour, lifestyle and culture. Heterosexism is used as a term analogous to sexism and racism, describing an ideological system that denies, denigrates, and stigmatizes any nonheterosexual form of behaviour, identity, relationship, or community (Herek [1990]). The term highlights the parallels between antigay sentiment and other forms of prejudice, such as racism, anti-Semitism, and sexism. While, sexual prejudice refers to all negative attitudes based on sexual orientation, whether the target is homosexual, bisexual, or

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the culture that associate greater status worthiness and competence with one category of the distinction that with others (Berger, Hamit, Robert and Morris [1977]).

[11] Following Herek (1990), homosexuality pervades societal customs like institutional racism and sexism. It operates through a dual process of invisibility and attack. It usually remains culturally invisible; when people who engage in homosexual behaviour or who are identified as homosexual become visible they are subject to attack by society.

heterosexual. The prejudice is almost always directed at people who engage in homosexual behaviour or label themselves gay, lesbian, or bisexual (Herek [2000]).

5.3 Methodology and Application Structure

The current experiment was conducted between December 2006 to September 2007 and involved the capital of Greece, Athens. In order to measure occupational access discrimination for gay applicants, we had fabricated two imaginary, equal in human-capital workers, applying to the same job by sending curriculum vitaes using different fax devices. The occupations, to which we have been focused on, covered a large spectrum of job quality: office jobs, industry jobs, café and restaurant services and shop sales. Interestingly, the investigated occupations allowed for further classification in accordance to the nature of the research. It is rather obvious that a key issue that arise when low skilled gay candidates seek for a job is the visibility and invisibility of equality, tolerance and diversity in relation to their sexual orientation in sectors. Though industry vacancies as the masculine jobs, café-restaurant services and sales vacancies as the gay-friendly jobs while office vacancies as the most status jobs we had a further dimension to take into account (Colgan, Greegan, McKearney and Wright [2006]).

We applied to vacancies where there was demand for eight-hour and five-day employment. These vacancies were identified through a random sample of advertisements, appearing in website newspapers. The curriculum vitaes were faxed simultaneously, within one day of the advertisement appearance, and if firms were interested about any of the applicants they could be reached either through available postal addresses, or by telephone contact. The qualifications and the presentation style of the two fictitious applicants were matched as closely as possible, so that they were identical in all employment relevant characteristics but sexual orientation. While, each application was designed so as to equally convey the type of experience that might make an applicant attractive.

Each of the fictitious applicants was allocated a male Greek distinctive first and last name, a mobile telephone number, and a postal address. The addresses were chosen so that to be recognized as similar as possible, in order to indicate the same

social class. Applications showed the same level of schooling and job experience. Both candidates had finished high schools, approximately twelve years ago (Appendix A). Furthermore, the applicants were 29 years old, unmarried, and had carried out military service in different areas. Both candidates had nine years of work experience in a similar post to each vacancy applying for, while to avoid detection the candidates' high schools and previous workplaces were located at different areas in Athens.

However, the two applicants were identical apart from their sexual orientation. For half of the candidates no explicit information on sexual orientation was given. These were classified as straights (Adam [1981] and Weichselbaumer [2003]). However, the gay-labeled candidate's sexual orientation was denoted by a reference in the personal information part, of the line ″member volunteer in the Athenian Homosexual Community″. To control the probability that the activity may create holdbacks in his present duties it had ended. Also, in case that ″membership″ might bias the selection process, the straight's curriculum vitae mentioned a past volunteerism in an environmental community too.

Moreover, both candidates had similar hobbies and personal characteristics entailed similar masculinity. Gay men who violate genders rules face considerable prejudice as their mannerism is inconsistent with society's expectations about masculinity (Herek [1994]).

For obvious reasons, the styles of the curriculum vitaes were different for each pair. Yet, in order to control for the possibility the style of an application to influence an employer's response, those two -different in style- application forms were equally allocated between the straight and gay candidates. For the same reason, applications were sent alternately to each vacancy; in half cases the straight application was first sent. Both experimental controls adjusted in the regression stage[12]. Following, whenever employers themselves called for arranging appointments with the applicants the two testers were trying to raise informal questions, concerning monthly wage offers[13]. However, the usual selection bias issues arise (see, Chapter 4.4.b).

[12] For an extensive study on control variables and random events see Fix and Struyk (1993).

[13] To verify that the testers were identical to all ″observed″, in the telephone contact, characteristics e.g. accent, masculinity, articulation, age and mansuetude, and that they were

5.4 Field Results

The coefficient estimations (for the econometric modelling see Chapter 4.5), regarding gay - straight - paired differences, are summarized in Tables 1 and 2 below. Table 1, shows that the gay applicants are faced a marginal probability to be invited for an interview that is by 0.261 less than that of the straight candidates on average[14].

Table 1. Probit : Marginal Effects; Independent Variable : *Sexual Orientation*

Occupations Coefficient	Office Jobs	Industries	Restaurant and Café Services	Shop Sales	Total
β_1	-0.304	-0.248	-0.211	-0.289	-0.261
s.e.	*(0.295)*	*(0.252)*	*(0.203)*	*(0.150)*	*(0.207)*
p-values	0.000*	0.000*	0.000*	0.000*	0.000*
Observations	910	692	1022	804	3428

Notes: The dependent binary variable is callbacks and rejections to the candidates. Statistically Significant at 1 %(*); 5 %(**). Standard errors are adjusted for intraclass correlation.

The result suggests that gay candidates are discriminated when actual employers make hiring decisions. Though, heterogeneity amongst sectors, the probability varies across them: In office jobs gay men are faced 0.304 less probability to be invited for interview, followed by 0.289 in shop sales, 0.248 in industries, and 0.211 in restaurants and café services. Hence as well, it seems that employers implicitly expect more competent task performances from those with the more valued state of characteristic, i.e. straights, compared with those with the less valued state i.e. gay. Interestingly gay candidates do not seem to enjoy a significant access premium in the gay occupations. Regardless norm ordains; "unskilled young gay to be

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also responding equally, either to employers' clarifications or to their own questions, we had conducted pre-tests: Having recorded a testers' pilot rehearsal, considerable numbers of individuals were asked to confirm the relevant issues. Our true experiment then began only after a unanimous advocacy had been reached. On the other hand, however, we must note that it is off course impossible to test a firm's truthfulness, until a candidate is actually hired.

[14] Net discrimination against gay-labeled candidates is 0.643, which stands a significant difference at 1% (Appendix B, Table (i)).

dovetailed and segregated in sales and café-restaurant services", the estimations can not countersign the fact. Actually, in industries the gay candidates are faced a less discrimination factor than that in shop sales.

Moreover, we have re-estimated equation (1) including (adjusted) two binary controls variables: Curriculum vitaes' sending order and type, still nonetheless their impact on the relevant outcome is negligible (see, Appendix C, Table (iii)). The coefficients estimations indicate statistically significant less probability for the gay candidates to be invited for interview of about 0.211-0.303, amongst the four sectors. Since experimental conditions are equally assigned, these controls do not substantially affect the estimated effect of sexual orientation, but they make the estimate more precise.

Turning next to equation (2), Table 2, the estimations entail that the gay applicants face a monthly ″sexual orientation penalty″ of 18.33€, producing a wage discrimination factor d=0.026, which is a statistically insignificant outcome on average. Separately in each sector we found similarly insignificant small effects. The higher penalty is found in shop sales of 14.97€ [d=0.023], followed by office jobs of 8.77€ [d=0.011], restaurant and café services of 6.07€ [d=0.009], and industries of 2.91€ [d=0.003]. In all sectors the wage differentials of this magnitude represents an insignificant loss in gay-labeled candidates welfare.

Table 2. OLS : Coefficient Estimations & Marginal Effects; Independent Variable : *Sexual Orientation*

Occupations Coefficient	Office Jobs	Industries	Restaurant and Café Services	Shop Sales	Total
β_2	-8.770	-2.916	-6.078	-14.976	-18.330
s.e	*(19.774)*	*(16.487)*	*(13.478)*	*(11.609)*	*(10.409)*
p-values	0.663	0.862	0.657	0.212	0.120
Observations	125	90	106	155	476
d	d=0.011	d=0.003	d=0.009	d=0.023	d=0.026

Notes: The dependent variable is employers wage offers to the applicants. Statistically Significant at 1 %(*); 5 %(**). Standard errors are adjusted for intraclass correlation.

As it comes, the lower relative to straights, accessibility of gay to the reference occupations entails discriminatory but statistically insignificant effects in the ensuing steps of the selection process. Since the applicants being evaluated in this study were equally qualified by experimental design, we conclude that employers' discrimination

is responsible for the disadvantages we found. Although, the implied penalty required for adequate compensation it is not high enough as to arouse the suspicion of the prospective seekers it seems that employers may consider gay candidates as being less productive than straights, hence, the former would have to suffer the monthly sexual orientation penalty, whenever employed; and/or employers might be willing to overcome a taste against gays if their wages fall bellow those of straights.

The theory behind this result is that good performances are inconsistent with the expectations for gay workers, therefore when gay's human capital performs well at a task, their performances are critically scrutinized. Interestingly, the estimations indicate that in industries the discrimination factor get its lower value, compared to others. Partially, it implied that masculinity does not fight it out gay candidates' welfare. However, someone could further claim that in industries as well as in office jobs wages are rather fixed, mainly on payroll criteria, and thus they can not be extensively fluctuated depending on irrelevant to human capital endowments[15].

For a deeper investigation, we have re-estimated equation (2) based on those cases where both applicants were received a wage offer (Appendix 3, Table (iv), Panel A). The coefficients estimations indicate a less insignificant income disadvantage of about; 0.008-0.019, generating a wage discrimination factor of 0.015, against gay candidates on average. Similarly, in shop sales the wage discrimination factor gets the higher value while in office jobs it gets the lower value. Furthermore, including to the latter regression a binary control variable: Firms' callbacks order, its impact is found to be negligible (Appendix C, Table (iv), Panel B). Thus, whether firms had contacted the straight (gay) applicant first (second) it is rather oblivious to the wages offers.

5.5 Discussion: Sex and Discrimination

Having estimated a significant degree of occupational access discrimination against gay applicants we were interested also in investigating whether employers sex could determine discriminatory attitudes. Following Kimmel (1994) and Kimmel and Mahler (2003), sexual orientation discrimination is not evenly distributed throughout society, but is more or less pronounced according to demographic characteristics. An

[15] See, Colgan, Greegan, McKearney and Wright (2006).

sizeable amount of empirical surveys show individuals' attitudes toward gay men to be consistently correlated with sex (Yang [1997]; Davis *et al* [1998]). To attempt to assess the role of these, in the current experiment whenever employers themselves had called back candidates in order to arrange an appointment the testers registered employers sex.

Employers sex impact on gay applicants' [16] terms of employment is summarized in Table 3 and 4, below.

Table 3. Probit: Marginal Effects; Independent Variable: *Persons' Sex Responsible for Applicants' Selection*

Occupations Coefficient	Office Jobs	Industries	Restaurant and Café Services	Shop Sales	Total
β_{So}	-0.356	-0.290	-0.289	-0.393	-0.350
s.e.	*(0.104)*	*(0.222)*	*(0.175)*	*(0.087)*	*(0.061)*
p-values	0.000*	0.195	0.108	0.000*	0.000*
Observations	187	131	169	209	696

Notes: The dependent binary variable is total invitations-rejections for the gay applicant. Sex impact is measured by the coefficients $\beta_{So.}$ Statistically Significant at 1 %(*), 5 %(**). Standard errors are adjusted for intraclass correlation.

Table 3, reveals significant results that can not be underestimated. On average, gay applicants' occupational access significantly varies depending on employers sex. The estimated probability of gay candidates to receive an invitation for interview is by 0.350 lower (higher) if the employers are males (females), on average. Hence, gay candidates are discriminate more when males make selection decisions. Analytically, in shop sales the estimated probability of males to invite gay candidates for interview is by 0.393 lower than that of females, while in office jobs is also lower by 0.356. In

[16] Notice that discriminatory treatments against the heterosexual candidates are generally attributed to random events. Following, Wienk *et al* (1979) the share of calls in which a minority candidate is favored provides an estimate of the extent to which random factors are at work. In our case the occupational access discrimination against the straight applicant was a negligibly outcome, which made unable to test for any correlation between employers sex and potential discrimination (see, Myers [1990]).

industries and café-restaurant vacancies, however, employers' sex insignificantly stands[17].

Moreover, as Table 4 shows, males practice insignificant sexual orientations penalties of 22.13€ [0.032] against gay candidates, Panel A, while females provide them with an insignificant wage premium of 4.52€ [0.006], Panel B, on average. Consistent with empirical evidences we find that males discriminate more than females. This means that males held gay applicants to a significant harsher standard than female did, allowing gay candidates less chances of being interviewed and penalized their monthly wages more.

In particular, if employers are males; a sexual orientation penalty against gay applicants exists in shop sales of 21.08€ [0.033], followed by office jobs of 13.57€ [0.018], restaurant-café services of 3.41€ [0.005], and industries of 2.94€ [0.004]. On the other hand, if employers are females; an insignificant wage premium for gay candidates is identified in shop sales of 7.65€ [0.011] and in offices of 5.14€ [0.006]. However, in restaurant-café services a sexual orientation penalty for gay applicants is implied which is higher by 28.33€ [0.044], followed by industries of 14.00€ [0.021].

Table 4 OLS : Coefficient Estimations & Marginal Effects; Independent Variable: *Sexual Orientation*

Occupations	Office Jobs	Industries	Restaurant and Café Services	Shop Sales	Total
Coefficient					
Panel A: male					
β_{Spm}	-13.570	-2.947	-3.411	-21.087	-22.139
s.e.	*(23.638)*	*(12.238)*	*(13.380)*	*(10.855)*	*(11.071)*
p-values	0.574	0.813	0.802	0.067	0.056
Observations	100	83	98	122	403
d	d=0.018	d=0.004	d=0.005	d=0.033	d=0.032
Panel B: female					
β_{Spf}	5.147	-14.000	-28.333	7.652	4.527
s.e.	*(21.781)*	*(61.442)*	*(64.652)*	*(16.686)*	*(18.503)*
p-values	0.818	0.813	0.679	0.657	0.810
Observations	25	7	8	33	73
d	d=0.006	d=0.021	d=0.044	d=0.011	d=0.006

Notes: In Panel A, the dependent variable is males' wage offers to the applicants. In Panel B, the dependent variable is females' wage offers to the applicants. Sexual orientation impact is measured by the coefficients β_{Spm} and $\beta_{Spf.}$ Statistically Significant at 1 %(*), 5 %(**). Standard errors are adjusted for intraclass correlation.

Furthermore, we have re-estimated the relation limited the sample only to

[17] In these vacancies the representation of female employers was scarce restricted volatility.

those cases where both candidates were received a wage offer (see, Appendix 3, Table (v), Panel A&B). On average, as Panel A and B show, male and female employers practice insignificant sexual orientations penalties against gay candidates of 13.97€ [0.021], and of 2.27€ [0.003], respectively. As it comes, if employers are males, the sexual orientation penalty against the gay candidates is in restaurant-café services of 14.21€ [0.021], followed by shop sales of 14.05€ [0.003], industries of 10.62€ [0.015], and offices of 10.00€ [0.013] (Panel A). Consequently, the estimations indicate a less insignificant income disadvantage. On the other hand, if employers are females, the sexual orientation penalty against the gay candidates is in restaurant-café services of 15.00€ [0.024], followed by shop sales of 5.00€ [0.007], while in industries and offices no penalty exists (Panel B).

Utilized employers sex, there are some patterns in the results which provide some interesting insights. It seems that males are more reluctant in their reactions to homosexuality as they are significantly more prone to practice higher occupational access discrimination than females (see, Kitien and Whitley [1998]). Yet, following Herek (1986), males' relationship between homophobia and masculinity is evident in the first place in their relatively stronger allegiance to homophobic attitudes. Indeed, males include stronger beliefs than females about genders, morality, and danger by which men homosexuality is defined as ″inferior″ which predetermine their attitudes (see e.g., Davis, Yarber, Bauserman, Schreer and Davis [1998]). Actually, the estimations indicate that males do inflict higher sexual orientation penalties to overcome their dislikes and/or uncertainty for gay applicants.

However, we must keep in mind that a complete understanding of gay men discrimination requires analysis of its roots in culture and social interactions, as well as individual thought processes. Definitely, people's attitudes are formed on the basis of personal experiences, beliefs norms and standards as well as on actual contextual events[18] (Herek [1992], [2004]; Pharr [1998]).

[18] Although correspondence testing can not measure other than occupational access and wage discrimination against gay candidates; during the experiment we became ourselves victims of abuses and bulling. After a short period of curriculum vitaes sending the gay applicant's mobile phone started to receive intimidating calls (from males) and sms regarding his sexual orientation, which lasted up to the end of the experiment. Although we can not identified whether the calls came from employers, managers or other employees, or whether the gay

5.6 Conclusions

In 2000 the European Union had instituted specific legislation aiming to lay down a framework for combating discrimination in the labour market. Briefly, that legislation made clear that people affected by discrimination should have adequate means of legal protection against unequal treatments, and an effective right of redress. This study is the first in Greece using a correspondence test to examine whether sexual orientation discrimination against gay-labeled men exists in the Greek labour market.

Focus on the selection process and by experimentally holding constant the human capital of a pair of fictitious job applicants and varying only their sexual orientation, our results reveal significant differences in access to occupations, and insignificant in wage offers among straight and gay candidates. In particular, the estimated probability of gay candidates to receive an interview invitation is found to be by 0.261 lower than that of the heterosexual, while a wage discrimination factor is estimated to be 0.026 for gay candidates. The estimations suggest that it is required a willingness to spend amounts of time job-hunting if men are openly gay, while the wage differentials of this magnitude would represent an insignificant loss in gays welfare. Last but not least, in a process to illuminate the outcomes, we further find that employers sex significantly varies; the estimated probability of males to practice occupational access discrimination against gay candidates is by 0.350 higher than that of female. Furthermore, males are found to practice insignificant wage discrimination of 0.032 against gay candidates, while female are found to provide them with an insignificant wage premium of 0.006 on average.

The results of this study have implications for understanding some of the enduring patterns of sexual orientation discrimination in the Greek labour market.

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candidates had been rejected or called for interview, the experience came to illuminate some further discriminatory incidents which might face an openly gay in the workplace.

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Appendix A

Curriculum vitaes– Synopses

Applicant: A

Curriculum Vitae
First Name:
Last Name:
Ethnicity: Greek
Marital Status: Unmarried
Date of Birth: .../.../1978
Address: Location
Telephone: Mobile
Military Services: Location, Carried Out in 1998

Education:

Certificate of Greek high school in 1996, Location
Basic Knowledge of English and P/C
Driving License

Professional Experience:

From August 1998 to January 2000
Appointment/ Firm
From March 2000 to March 2003
Appointment/ Firm
From April 2003 to …200(6)7
Appointment/ Firm

Interests: Sports and Travels
Member volunteer in the Athenian Homosexual Community (01-05)

Personal Characteristics: Productive and Associable

Applicant: B

Curriculum Vitae

First Name
Last Name

Date of Birth .../.../1978
Ethnicity Greek
Marital Status Unmarried
Address Location
Telephone Mobile

Experience

Appointment/ Firm
February1998- November1999
Appointment/ Firm
December1999-July 2004
Appointment/ Firm
August2004-...200(6)7

Education

Certificate of Greek high school in 1996, Location
English Basic Knowledge
P/C Basic Knowledge

Personal

Military Services Carried Out in 1998
Hobbies Volunteer in the Olympus: Environmental Union from 1999-2003, Travels/Sports
Personality Industrious, Efficient, Associable
Driving License

Appendix B

Table (i) Correspondence Testing Outcomes

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against Gays (2) No.	Discrimination Against Straights (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)]/(1)	x^2 test
Office Jobs	455	268	187	46	140	1	139	0.743	137.02*
Industries	346	215	131	40	89	2	87	0.664	83.17*
Restaurant & Café Services	511	342	169	57	110	2	108	0.639	104.14*
Shop Sales	402	193	209	87	118	4	114	0.545	106.52*
Total	1714	1018	696	230	457	9	448	0.643	430.69*

Note: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3).
(*)StatisticallySignificantat1%.

Table (ii) Monthly Wage Offers

	All observations		Paired - observations	
	Straights	Gays	Straights	Gays
Occupations (observations)	(€)	(€)	(€)	(€)
Office Jobs	749.6	740.83	747.5	740.83
	(101)	(24)	(24)	(24)
Industries	687.91	685	693.33	685
	(72)	(18)	(18)	(18)
Restaurant & Café	649.41	643.33	656.19	643.33
Services	(85)	(21)	(21)	(21)
Shop Sales	639.44	624.46	636.59	624.46
	(108)	(47)	(47)	(47)
Total	681.69	663.36	673.82	663.36
	(366)	(110)	(110)	(110)

Appendix C

Table (iii) Probit: Marginal Effects; Invitation to Interviews

Independent Variables: Occupations *(Observations)*	Sexual Orientation	Curriculum Vitaes' Sending Order	Curriculum Vitaes' Type Style
Office Jobs			
β_1	-0.303	0.004	-0.004
s.e.	*(0.294)*	*(0.007)*	*(0.006)*
p-values	0.000*	0.197	0.049**
Observations	910	910	910
Industries			
β_1	-0.250	0.007	0.037
s.e.	*(0.257)*	*(0.012)*	*(0.056)*
p-values	0.000*	0.249	0.108
Observations	692	692	692
Restaurant and Café Services			
β_1	-0.211	0.008	0.026
s.e.	*(0.202)*	*(0.009)*	*(0.022)*
p-values	0.000*	0.020**	0.124
Observations	1022	1022	1022
Shop Sales			
β_1	-0.290	0.001	0.038
s.e.	*(0.151)*	*(0.008)*	*(0.023)*
p-values	0.000*	0.843	0.098
Observations	804	804	804
Total			
β_1	-0.262	0.005	0.023
s.e.	*(0.208)*	*(0.008)*	*(0.021)*
p-values	0.000*	0.161	0.102
Observations	3428	3428	3428

Notes: The dependent binary variable is callbacks and rejections to the applicants.
Statistically Significant at 1 %(*); 5 %(**). Standard errors are adjusted for intraclass correlation.

Table (iv) OLS: Coefficient Estimations & Marginal Effects Limited Sample

Independent Variables:	Panel A	Panel B	
Occupations *(Observations)*	Sexual Orientation	Sexual Orientation	Firms' Callbacks Order
Office Jobs			
β_2	-6.666	-6.444	-0.888
s.e.	*(12.777)*	*(10.657)*	*(13.179)*
p-values	0.611	0.556	0.947
Observations	48	48	48
d	d= 0.008	d=0.008	d=0.001
Industries			
β_2	-8.333	-8.896	2.532
s.e.	*(26.095)*	*(26.083)*	*(19.462)*
p-values	0.755	0.739	0.898
Observations	36	36	36
d	d=0.011	d=0.012	d=0.003
Restaurant and Café Services			
β_2			
s.e.	-12.857	-13.333	3.333
p-values	*(15.465)*	*(16.199)*	*(26.718)*
Observations	0.422	0.427	0.903
d	42	42	42
	d=0.019	d=0.020	d=0.005
Shop Sales			
β_2	-12.127	-12.941	2.941
s.e.	*(12.678)*	*(15.205)*	*(10.020)*
p-values	0.355	0.409	0.773
Observations	94	94	94
d	d=0.019	d=0.020	d=0.004
Total			
β_2	-10.454	-10.623	0.931
s.e.	*(11.575)*	*(11.983)*	*(6.645)*
p-values	0.375	0.384	0.890
Observations	220	220	220
d	d=0.015	d=0.015	d=0.001

Notes: The dependent binary variable is callbacks and rejections to the applicants.
Statistically Significant at 1 %(*); 5 %(**). Standard errors are adjusted for intraclass correlation.

Appendix D

Table (v) OLS:Coefficient Estimations & Marginal Effects; Independent Variable: Sexual Orientation

Occupations	Office Jobs	Industries	Restaurant and Café Services	Shop Sales	Total
Coefficient					
Panel A : male					
$\beta_{Spm}{}^{l}$	-10.000	-10.625	-14.210	-14.054	-13.973
s.e.	*(12.927)*	*(23.597)*	*(17.385)*	*(13.754)*	*(13.983)*
p-values	0.455	0.661	0.430	0.326	0.328
Observations	32	32	38	74	176
d	d=0.013	d=0.015	d=0.021	d=0.003	d=0.021
Panel B: female					
$\beta_{Spf}{}^{l}$	0.000	0.000	-15.000	-5.000	-2.272
s.e.	*(28.108)*	*(1.224)*	*(125.386)*	*(10.250)*	*(13.584)*
p-values	1.000	1.000	0.916	0.646	0.870
Observations	16	4	4	20	44
d	d=0.000	d=0.000	d=0.024	d=0.007	d=0.003

Notes: In Panel A, the dependent variable is males' wage offers to the applicants. In Panel B, the dependent variable is females' wage offers to the applicants. Sexual orientation impact is measured by the coefficients $\beta_{Spm}{}^{l}$ and $\beta_{Spf}{}^{l}$. Statistically Significant at 1 %(*); 5 %(**). Standard errors are adjusted for intraclass correlation.

Appendix E

Sexual Orientation Discrimination

Only two studies have been carried out to test sexual orientation discrimination in hiring. In the United States, Adam (1981) conducted a correspondence testing. Identical resumes, differentiated only by sexual orientation, were mailed to Ontario and Toronto law firms, in application for articling position. Sexual orientation was identified in the interest section of their curriculum vitaes by involvement in activities associate with gays and lesbians. The responses demonstrate the existence of discrimination be sexual orientation. The overall interview-offer rate for non-labelled applicants was 1.8 times the gay-labelled rate. The non-labelled male applicant received 1.6 times as many interview offers as the gay-labelled male. Discrimination against gay men appears especially marked in Toronto, where the non-labelled male rate rises to 2.9 times the gay-labelled male rate. The gay-labelled female (lesbian) applicant fared worse. Non-labelled females received twice as many interview offers as lesbian applicants.

In Austria, Weichselbaumer [2003] conducted a correspondence test to examine the hiring chances of lesbians. Lesbians were specifically focused at because several wage regression studies had established that they, in contrast to other equality groups including gay men, earned higher wages than their reference groups. The research was conducted by sending out matched letters of applications to the same job openings. However, an item indicating a history of voluntary work at a Lesbian organisation was added to half of the applications. Subsequently, it was found that indicating a lesbian identity reduced one's invitation rate by about 0.130. The results of wage regression studies are therefore more likely to be due to measurement errors or increasing productivity.

Chapter 6
Wage Discrimination and Antidiscrimination Policy in Unionized Oligopoly[1]

6.1 Introduction

In Chapter Three we have shown that the European Council adopted two Directives: the Racial Directive, and the Employment Equality Directive (2000), both aiming to ensure that everybody living in the European Union can benefit from legal protection against discrimination. However, as our field-experiments suggested discrimination in the labour market is still witnessed raising the need for active antidiscrimination policies (see, Chapter Four). The evidence provided a strong indication that labour market discrimination, as in particular regards ethnic minority groups/economic migrants, was significant and it might be related with other than productivity factors.

As we have already analysed, the theoretical foundations of labour market discrimination go back to the seminal papers of Becker, and Arrow (see, Chapter One). In Becker's (1957) approach, discrimination arises from a taste for discrimination against minority workers on the part of employers, while in Arrow's (1972) statistical discrimination hypothesis, it results from the employers' uncertainty about the individual quality of workers, which is biased against minority workers. In the current theoretical modeling we refrain from both those approaches. On the first hand, we abstain from any taste to discriminate on the part of anyone and against anybody. On the other hand, as it comes to beliefs about workers' individual quality we postulate that employers are unbiased as regards any particular group of workers.

In a context of union-oligopoly decentralized bargaining, like ours, we propose that wage discrimination among equally-skilled workers may emerge as long as:

First, workers can be *ex ante* grouped according to different opportunity costs of employment (e.g., reservation wages).

---

[1] This study could not have been made without M. Vlassis' - Associate Professor of Economics at the University of Crete - constructive help and feedback. Also, I am grateful to E. Petrakis – Professor of Economics at the University of Crete. I have benefited from comments and suggestions made during the presentations of an earlier version of this paper at the *EEFS 2007* Conference on ″European and Global Integration: Underlying Causes, Issues Arising and Formulating Economic Policies″, held in *Sofia, Bulgaria*.

Second, depending on the distribution of bargaining power over the wage, the labour market agents (e.g., firms and unions) find wage discrimination to their best interest.

This key result in turn suggests that the European Union antidiscrimination directives may drive benevolent policy makers to combat wage discrimination without necessarily confronting a net loss in social welfare.

The paper is organized as follows. Section 2 presents our structural model and the sequence of events arising in its context. Solving this game in Section 3 we reason why in the absence of an active antidiscrimination policy firm-specific wage discrimination may endogenously emerge. With an explicit view on welfare effects, in Section 4 we consider antidiscrimination policy, and evaluate our findings.

6.2 The Model

The product market of our reference industrial sector X consists of two unionized firms which compete *a la Cournot* in homogenous goods, possessing *C.R.S* production function(s): $x_i = k_i N_i$; $i = 1,2$. Where x_i denotes output, N_i is the number of employees, and $k_i > 0$ represents the labour productivity of firm i. We thus allow for productivity asymmetries among firms and, normalizing $k_2 \equiv 1; k_1 \equiv k > (<) 1$, we may assume that this is due to the possession of a labour-saving technology on the part of firm1(2).

On the part of the representative consumer, preferences are given by a variant of Dixit's (1979) quasi-linear specification $u(X,Z) = X - X^2/2 + Z; X = x_i + x_j$; Z $\equiv$ *the rest of the economy*, giving rise to a standard profit formula for each firm $j \neq i = 1,2$ in sector X,

$$\Pi_i = (1 - x_i - x_j)x_i - C_i(x_i) \qquad (1)$$

Where, $C_i(x_i)$ stands for the total labour costs of production.

In the labour market, the presumably equally-skilled workers who find a job within each i firm are *by default* organized in to the firm's labour union. That is, under decentralized firm-union bargaining a collective agreement struck in firm/union pair i

covers any employee in firm *i*, regardless of his/her union-membership status[2]. Yet, the workers opting for a job in sector *X* can be *ex ante* grouped according to different reservation wages. In particular, we assume that there exist two groups of workers: N_0 and N_d, with reservation wages w_R and dw_R ; w_R >0; 1>*d*>0, respectively. Prominent examples for N_d seem to be the economic migrants, as well as the aged and long-term unemployed workers. They typically face lower opportunity costs of employment, relative to "regular" (N_0) workers, and/or they may not be eligible to receive the unemployment benefit. In order to find a job anywhere a worker belonging to the N_d group would then be willing to accept a wage, even lower than the unemployment benefit (say w_R), equal to his/her disutility of work (dw_R). Hence it can be reasonably addressed that the union's *i* objective function is an idiosyncratic variant of the Oswald's (1982) total rents formula,

$$U_i = (w_{0i} - w_R)N_{0i} + (w_{di} - dw_R)N_{di} \ ; i=1, 2 \qquad (2)$$

Given the above union membership configuration, we postulate that the employers' beliefs regarding the relative productivity of workers belonging to any particular group are [unlike in Arrow (1972)] unbiased. Henceforth, additional costs [beyond $C_i(x_i)$] are implied in (1) whenever employment is not "balanced" across groups. Following De Fontenay and Gans (2005) let specify those costs to be,[3]

$$q_i[N_{0i} - N_{di}]^2 \ ; i=1, 2 \text{ (normalized: } q_2 \equiv 1; \ q_1 \equiv q \leq (>)1) \qquad (3)$$

Given the European Council *Antidiscrimination Directives* (particularly #78) the sequence of events arising in this context is then seen to be as follows.

[2] There is evidence that such an *open shop* scheme is sustained in a number of European countries, like in Greece, France, and Spain (see e.g., Hartog and Theeuwes [1992], Vlassis [2003]).

[3] In the cited authors' context, specification (3) implies that to the firms' eyes distinct input suppliers (workers with different reservation wages in our context) provide imperfect substitute inputs.

At stage one a benevolent policy maker operating under a balanced budget handles a set of ordinary policy tools (e.g. taxes/subsidies) with the aim to combat wage discrimination in the labour market of sector *X*. Regarding the choice of a particular antidiscrimination policy, AdP_X, where $_X$ refers to a vector of taxes (or subsidies) applying at the *X* sector's level, our envisaged policy maker is driven by the following lexicographic objective.

(I)

Activate any AdP_X *so long as it leads to non-discriminated wages across employees in each i firm*

(II)

Choose AdP_X*: max* $G\,(AdP_X) \equiv \{DCS\,(AdP_X) + DU\,(AdP_X) + DPS\,(AdP_X) - C(AdP_X)\}$

Where, given the no policy status quo, the operator *D* refers to the *X*-sector specific-derived differentials, regarding *Consumer Surplus (CS)*, *Union Rents (U) and Producer Surplus (PS)*, in case that a particular AdP_X is undertaken, and $C(AdP_X)$ is a measure of the policy's costs.

At stage two decentralized wage bargains are conducted in each firm-union pair *i*, whilst firm-specific employment decisions (to be materialized at stage three) are left to each firm's discretion. Since prospective employees/union members are *ex ante* differentiated regarding their reservation wages, our interest is at this stage focused on whether firm-union decentralized bargaining will *ex post* deliver discriminatory (or non-discriminatory) firm-specific wage contracts. Respectively whether $w_{0i} \neq w_{di}$, or $w_{0i} = w_{di} = w_{ndi}$, will emerge in the (sub-game) equilibrium. Regarding how this equilibrium is defined we must further clarify the following.

(i). If the policy maker's choice (of AdP_X) at stage one is independent of the realization of $w_{0i} \neq w_{di}$ (or $w_{0i} = w_{di} = w_{ndi}$) at stage two, then both the type of contract and the wage rate(s) will simultaneously be determined through parallel firm-union bargains.

(ii). If however the policy maker's choice is contingent upon the type of contract emerging at stage two, then, prior to wage bargaining, each firm/union pair i will independent from firm/union pair $j \neq i = 1,2$, decide whether to bargain over a single (w_{ndi}) or a discriminatory ($w_{0i} \neq w_{di}$) wage scheme, given AdP_X in either instance; thus stage two will in this case be effectively comprised of two sub-stages without delay.[4]

At stage three firms simultaneously and independently adjust their employment/output levels.

6.3 Endogenous Wage Discrimination

Solving the game by backwards induction, at stage three each firm i adjusts its output (x_i) so that to maximize its own profits, for any level ($x_{j\neq i=1,2}$) of the rival firm's output, given the firm-specific wage scheme resulting from stage two, and $AdP_X \equiv \bar{f}_i \neq (=)0$ resulting from the first stage.[5]

Assume for the moment that $\bar{f}_i = 0$. Then, given $x_i (\equiv x_{0i} + x_{di}) = k_i [N_{0i} + N_{di}]$; $i = 1,2$, and considering (3), the sub-game equilibrium is at this stage defined by the vectors (x_{01}, x_{d1}), (x_{02}, x_{d2}), which respectively maximize (1.1), (1.2), below.

$$\Pi_1 = \{[(1 - (x_{01} + x_{d1}) - (x_{02} + x_{d2})](x_{01} + x_{d1})$$
$$-[x_{01}(w_{01}/k) + x_{d1}(w_{d1}/k)] - q[(x_{01}/k) - (x_{d1}/k)]^2\} \qquad (1.1)$$

[4] Of course, if the union possesses all the power over the firm-specific wage bargain (*monopoly union*) then prior to wage setting the union will unilaterally decide whether or not opt for a discriminatory wage contract.

[5] Where $\bar{f}_i$ stands for a vector of firm-specific taxes, or subsidies, and $\bar{f}_i \neq 0$ means that at least one of its elements is different than zero.

$$\Pi_2 = \{[(1-(x_{02}+x_{d2})-(x_{01}+x_{d1})](x_{02}+x_{d2})$$

$$-[x_{02}w_{02}+x_{d2}w_{d2}]-[(x_{02}-x_{d2}]^2\} \quad (1.2)$$

The *f.o.c*$_s$ deliver the following group-specific employment [output] rules of firms *i* (=*1, 2*), in the absence of an active antidiscrimination policy.

$$N_{01} = [1/k]\left[x_{01}\{= \frac{2+(w_{02}+w_{d2})-4((w_{01}+w_{d1})/2k)-(3k/2q)(w_{01}-w_{d1})}{24}\}\right] \quad (4.1.1)$$

$$N_{d1} = [1/k]\left[x_{01}\{= \frac{2+(w_{02}+w_{d2})-4((w_{01}+w_{d1})/2k)+(3k/2q)(w_{01}-w_{d1})}{24}\}\right] \quad (4.1.2)$$

$$N_{02} = \left[x_{02}\{= \frac{4+2((w_{01}+w_{d1})/k)-(7w_{02}+w_{d2})}{24}\}\right] \quad (4.2.1)$$

$$N_{d2} = \left[x_{d2}\{= \frac{4+2((w_{01}+w_{d1})/k)-(7w_{d2}+w_{02})}{24}\}\right] \quad (4.2.2)$$

The *foc*$_s$ can be also arranged as a regular system of reaction functions, $x_{i(j)} = R_{i(j)}(x_{i(j)})$, given the unit cost of production [average over efficient units of N_{0i}, N_{di}] of each *i* (=*1, 2*) firm [e.g., $(w_{0i}+w_{di})/2k_i$)].

$$x_{01}+x_{d1} = [1-(x_{02}+x_{d2})-(w_{01}+w_{d1})/2k]/2 \quad (5.1)$$

$$x_{02}+x_{d2} = [1-(x_{01}+x_{d1})-(w_{02}+w_{d2})/2]/2 \quad (5.2)$$

Hence, the following total output rules of firms *i* (=*1, 2*) are derived in the sub-game equilibrium.[6]

[6] Note that the total output (and hence employment) levels are independent of q_i; whilst, as

$$x_{01} + x_{d1} = \{1 + [(w_{02} + w_{d2})/2] - [(w_{01} + w_{d1})/k]\}/3 \quad (6.1)$$

$$x_{02} + x_{d2} = \{1 + [(w_{01} + w_{d1})/2k] - (w_{02} + w_{d2})\}/3 \quad (6.2)$$

Consider next stage two. Given that firms i (=1, 2) will (a): independently choose their output levels according to (6.1)-(6.2), (b): independently allocate [according to (4.1.1)-(4.2.2)] firm-specific employment across the different reservation wage groups, each firm/union pair i ($\neq j = 1,2$) is seen to bargain over the firm-specific wage contract [w_{0i}, w_{di}] so as (typically) maximize the (*Generalized Nash*) product B_i.

$$B_i = \{[U_i(w_{0i}, w_{0j}, w_{di}, w_{dj})]^b [\Pi_i(w_{0i}, w_{0j}, w_{di}, w_{dj})]^{(1-b)}\} \quad (7)$$

Where, b: $0 < b \leq 1$, stands for the union bargaining power over the wage, assumed to be symmetric across unions.

Let here first address the case where unions possess all the power over the wage bargain (e.g., b=1; monopoly unions). From the foc_s of B_i $w.r.t\, w_{0i}, w_{di}$ the following-as proves discriminatory- wage contracts are then derived in the equilibrium.

$$w_{01} = \{20k + [(31 + d) + 4k[1 + d]]w_R\}/60 \quad (8.1)$$

$$w_{d1} = \{20k + [(1 + 31d) + 4k[1 + d]]w_R\}/60 \quad (8.2)$$

$$w_{02} = \{20k + [(31k + 4) + d[4 + k]]w_R\}/60k \quad (8.3)$$

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expected, (5.1)-(5.2) imply that the firm-specific unit (labour) costs are strategic complements for firm/union pairs i.

$$w_{d2} = \{20k + [(k+4) + d(4+31k)]w_R\}/60k \quad (8.4)$$

Where,

$$[w_{0i} - w_{di}] = [(1-d)w_R]/2 \quad (9.1)$$

$$[w_{0(d)1} - w_{0(d)2}] = \{(k-1)[5k + (1+d)[1+k]w_R]\}/15k \quad (9.2)$$

Let also in this instance consistently address firm-specific non-discriminatory wage contracts. That is, imposing in (7) the restriction $w_{0i} = w_{di} = w_{ndi}; i = 1,2$, let for the moment assume that unions, somehow voluntarily, set non-discriminatory wages in each firm/union pair. From the $foc_{(s)}$ of B_i $w.r.t\, w_{ndi}$ it then turns out that,

$$w_{ndi} = \{[5k_i + (1+d)(4+k_i)w_R]/15\} = (w_{0i} + w_{di})/2 \;\; i = 1,2 \quad (10)$$

As previously shown however such contracts are sub-optimal for both (monopoly) unions. Whilst, by substituting (10) through (4.1.1)-(4.2.2) into $C_i(x_i) + (3)$, it further proves that,

$$C_i(w_{ndi}; w_{ndj}) - \{C_i(w_{0i}, w_{di}; w_{0j}, w_{dj}) + (3)\} = [(1-d)^2 {w_R}^2]/64q_i \; ; i \neq j = 1,2 \quad (11)$$

Note now that, since under the considered restriction, $N_{0i} = N_{di}$, no additional costs (arising from "unbalancing" production across the N_{0i}, N_{di} groups of employees) are incurred to firms i. On the contrary, as it can be checked from (4.1.1)-(4.2.2), given (9.1)-(9.2), it proves that $N_{0i}<N_{di}$[7] and, therefore, (3) entails positive such costs in the equilibrium. Despite that, nonetheless, (11) displays a positive value for all $1 > d > 0, w_R > 0, \;\; 0 < q_i \leq (>)1$, interestingly suggesting that wage discrimination lowers the total labour costs of firm i, relative to the case of a non-discriminatory wage contract. At the same time (10) clearly dictates that the latter occurs with no change in the firms' unit cost of production. Therefore firms achieve lower total costs without [as

[7] Actually, $N_{0i} - N_{di} = \{(d-1)kw_R/8q\}$, for all $1 > d > 0, w_R > 0, \;\; 0 < q_i \leq (>)1$.

(5.1)-(5.2) undoubtedly imply] changing their total employment/output levels (see, Appendix A).[8] Lemma 1 summarizes.

Lemma 1: *If, in the absence of an active antidiscrimination policy, b*=1*, then:* **(i)** *Discriminatory firm-specific wage contracts* $w_{0i} > w_{di} : [w_{0i} - w_{di}] = [(1-d)w_R]/2$, *emerge in firm/union pair i=1, 2 in the equilibrium.* **(ii)** *The ensuing firm-specific output and employment levels [total costs] are however invariant [lower] relative to the (sub-optimal) non-discriminatory firm-specific wage contracts* $w_{0i} = w_{di} = w_{ndi} : w_{ndi} = (w_{0i} + w_{di})/2$.

Let second address the case where $0 < b < 1$. Unfortunately under effective firm-union bargaining we are unable to get analytical solutions for w_{0i}, w_{di}. We have thus to recur to simulations on a fine grid of our parameter space. By that means it however interestingly turns out that there exist [$\underline{b}$; d, w_R] configurations such that non-discriminatory firm-specific wage contracts may emerge in the sub-game equilibrium. For that, the unions' bargaining power over the wage should nonetheless be sufficiently low. As an illustration, considering that w_R =0.01 and d=0.5 the foc_s of $B_{i(=1)}, w.r.t, w_{01}, w_{d1},$ are both found to be satisfied for $w_{01} \equiv w_{d1} \equiv w_{nd1} \equiv 0.1$, if b =0.35($\equiv \underline{b}$) (see, Appendix B). The result is analogous for firm/union pair 2. Lemma 2 summarizes.

[8] Of course, each firm would also achieve a lower unit cost, and hence increase its employment/output level in the equilibrium, if it could ex-post remunerate each one of its employees with w_{di} ($< w_{0i}$). However, this is not an option for any firm. In such an event, as it can be readily checked, union rents would be worsened even relative to the non-discrimination case. Union *i*, being the unique input supplier for firm *i*, by virtue of its monopoly power over the wage would then credibly switch to $w_{0i} = w_{di} = w_{ndi}$, which as shown is cost-inefficient for firms *i* in comparison to the discriminatory wage contract.

Lemma 2: *If, in the absence of an active antidiscrimination policy, the union power over the wage bargain is sufficiently low (b=$\underline{b}$), then there exist [$\underline{b}$; d, w_R] configurations such that non-discriminatory firm-specific wage contracts may emerge in firm/union pair i=1, 2 in the equilibrium.*

Lemmas 1 and 2 subsequently establish Proposition 1.

Proposition 1: (i) *If, in the absence of an active antidiscrimination policy, unions are powerful enough over the wage bargain (e.g., [b>$\underline{b}$; d, w_R]), then firm-specific discriminatory wage contracts $w_{0i} \neq w_{di} : N_{0i} \neq N_{di}$, emerge in firm/union pair i=1, 2, in the equilibrium.* **(ii)** *In the case of monopoly unions (e.g., if b=1>$\underline{b}$), in particular, $w_{0i} > w_{di} : N_{0i} < N_{di}$ in the equilibrium. Moreover, relative to the (sub-optimal for unions i) non-discriminatory firm-specific wage contracts $w_{0i} = w_{di} = w_{ndi} : N_{0i} = N_{di}$, the profits of each i firm (also) increase in the equilibrium.*

The intuition of our findings so far is as follows. In the absence of an active antidiscrimination policy unions have an incentive to opt for discriminatory firm-specific wage contracts during wage negotiations. The reason is that each union, driven by its utilitarian objective, by doing so internalizes the effect of the exogenous factor d (which *ex ante* differentiates reservation wages) so that the remuneration of each one of its members to equally contribute to the union's total rents. Of course, given the distribution of bargaining power over the wage among the union and its firm, this would be beneficiary to the union so long as the emerging equilibrium under a discriminatory wage contract entails high enough total rents relative to the case of a non-discriminatory wage contract. Here we have seen that, when union power is the maximum possible (e.g., in the case of monopoly unions), discriminatory wage contracts, relative to non-discriminatory ones, entail no change in employment levels.

Hence, and since at the same time the union unilaterally decides about the firm-specific wage contract, wage discrimination emerges in both firm/union pairs in the equilibrium.

As regards firms, they face additional (e.g., beyond production) costs whenever their production plans are due to wage discrimination unevenly allocated across employment units. Whist, on the other hand, the reallocation of employment brought by wage discrimination lowers their total production (labour) costs. Therefore, whenever union power over the wage bargain (e.g., the unit labour cost of production) is *ceteris paribus* low enough, the latter [former] effect is of a second [first] order regarding firm's profitability; at the same time, the firm possesses high enough power (weight), relative to the union, regarding the distribution of the firm-specific total surplus, among the firm and its union, in the equilibrium. Hence, whenever union power is low enough, non discriminatory wage contracts may endogenously emerge in each firm/union pair.

6.4 Antidiscrimination Policy under Monopoly Unions

Let us now consider antidiscrimination policy in the tractable case of monopoly unions. In our context that is to search for the equilibrium $AdP_X \equiv \bar{f}_i \neq 0$ at stage one, according to the policy maker's lexicographic objective ***I-II***. Policy options are seen to be as follows.

4.1. Let $\bar{f}_i \equiv \bar{t}_i > 0$ be a vector of *firm-specific taxes*, in the form of *wage penalties* per unit of N_{di} employment, announced at stage one, to be imposed to employers i=1, 2 whenever they accommodate the discriminatory wage scheme, and only then. Assume that the candidate equilibrium at stage two is non-discrimination in each firm/union pair i, in which event $\bar{f}_i \equiv \bar{t}_i = 0$. Recalling that under the considered policy instance each union should, prior to wage setting, unilaterally (and independent from union j) decide on the type of firm-specific wage contract [see e.g., stage two (ii)], let address a deviation from non-discrimination on the part of union i. In such an event, the union considers that in the continuation of the game its own firm's profits become,

$$\Pi_i(t_i) = \{[1-(x_{0i}+x_{di})-(x_{0j}+x_{dj})](x_{0i}+x_{di})-[x_{0i}(w_{0i}/k_i)+x_{di}((w_{di}+t_i)/k_i)] - q_i\,[(x_{01}/k_i)-(x_{d1}/k_i)]^2\} \quad (12)$$

Whilst, the profits of firm $j \neq i = 1,2$ [like also the profits of firm i in the candidate equilibrium] are,

$$\Pi_{j[i]} = \{[1-(x_{0i[j]} + x_{di[j]}) - (x_{0j[i]} + x_{dj[i]})](x_{0j[i]} + x_{dj[i]})$$
$$-[(x_{0j[i]} + x_{dj[i]})(w_{ndj[i]} / k_{j[i]})]\} \qquad (13)$$

By virtue of (12) and (13) stages three and two can subsequently deliver the $[w_{0i}(t_i), w_{di}(t_i)] \Rightarrow [N_{0i}(t_i), N_{di}(t_i)]$ $; i \neq j = 1,2$ values, under the considered deviation. Also, the $[w_{ndi}] \Rightarrow [N_{0i} + N_{di}]$; $i = 1,2$ values in the candidate non-discriminatory equilibrium can be similarly derived. Substituting analogously into (2) the union's $i \neq j = 1,2,$ rent differential obtained from deviation to firm-specific wage discrimination can be then defined as,

$$U_i^d \equiv U_i(w_{0i}(t_i), w_{di}(t_i); w_{ndj}) - U_i(w_{ndi}; w_{ndj}) \qquad (14)$$

Let next $[t_1^*, t_2^*]$ be the roots of $U_i^d = 0$ securing interior solutions for all our variables (see, Appendix C). Upon their announcement at stage one, e.g., whenever $\bar{f}_i^* \equiv \bar{t}_i^* = [t_1^*, t_2^*]$, unions $i(=1,2)$ would in turn [by virtue of (14)] be deterred to discriminate firm-specific wages at stage two. The reasoning is as follows.

If after the $[t_1^*, t_2^*]$ announcement firms i would go on with the discriminatory wage contract, they would decrease (increase) N_{di} (N_{0i}) according to their group-specific employment/ output rules. At the same time, however, as it can be easily checked their total employment/output levels would decrease. Unions i, on the other hand, would decrease (increase) w_{di} (w_{0i}) so that to adjust their discriminatory wage contracts to the $t_{i(\neq j=1,2)}$-brought distortion in the structure of firm-specific labour demand. Yet, though this adjustment in the structure of wages is *ceteris paribus* consistent with their utilitarian objective, if $t_{i(\neq j=1,2)}$ is high enough [e.g., equal to $t^*_{i(\neq j=1,2)}$] both unions would be willing to trade out $w_{0i}(t_i) \neq w_{di}(t_i)$ for higher firm-specific employment. The latter is ensuing when $t_{i(\neq j=1,2)} = 0$, for which

nonetheless the policy's requirement is that unions set non-discriminatory firm-specific wage rates in the equilibrium.

Turning to the policy maker's choice at stage one, the announcement of $\bar{t}_i^*$ will however according to criterion ***II*** definitely entail a net loss in social welfare in the equilibrium. The reason being that, even if we ignore any costs associated with monitoring and detecting (and thus be able to penalize) discrimination, from Lemma 1(ii) and Proposition 1(ii) it is clearly evident that, under this policy (see, Appendix D),[9]

$$DCS(\bar{t}_i^*) = 0,\ DU(\bar{t}_i^*) < 0,\ DPS(\bar{t}_i^*) < 0$$
$$\Rightarrow G[AdP_{X=\bar{t}_i^*}] < 0 \qquad (II.1)$$

4.2. Let $\bar{f}_i \equiv \bar{s}_i$ be a vector of firm-specific *subsidies* per unit of N_{di} employment, which is announced at stage one to be issued to employers i=1, 2 whatever is the configuration of their firm-specific wage contract. Then, the firm-specific $s_{i(=1,2)}$ values sufficient to sustain non-discrimination in the equilibrium are derived by simply repeating our backwards induction algorithm, given that the i firms' profit schedules under this policy become,

$$\Pi_i = \{(1-x_{0i}-x_{di}-x_j)(x_{0i}+x_{di}) - [x_{0i}(w_{0i}/k_i) + x_{di}((w_{di}-s_i)/k_i)]$$
$$-q_i[(x_{0i}/k_i)-(x_{di}/k_i)]^2\} \qquad (15)$$

It thus proves that, if $\bar{s}_i^*(\equiv \bar{s}) = [s, s]; s = (1-d)w_R$, (see, Appendix E) then the following non-discriminatory firm-specific wage contracts would arise in the equilibrium.

$$w_{01}(\bar{s}) = w_{d1}(\bar{s}) = w_{nd1}(\bar{s}) = \{10k + [15 + d[1+4k]]w_R\}/30 \qquad (16.1)$$

[9] Note that policy 4.1 incurs no costs other than the ignored ones. Hence, $C[AdP_{X=\bar{t}_i^*}] = 0$.

$$w_{02}(\bar{s}) = w_{d2}(\bar{s}) = w_{nd2}(\bar{s}) = \{10k + [4d + k[15 + d]]w_R\}/30k \qquad (16.2)$$

The reasoning of the above finding is straightforward. Under the subsidization of N_{di}-employment firms would independently increase (decrease) their demand for N_{di} (N_{0i}) according to their optimal employment/output rules. Unions would in turn optimally adjust firm-specific wages, by increasing (decreasing) w_{di} (w_{0i}), and it proves that this adjustment runs all the way up to non-discrimination among w_{di} and w_{0i} , if $\bar{s}_i(\equiv \bar{s}) = [s, s]; s = (1-d)w_R$. In the latter instance, the gain in firm-specific total employment and, hence, in each union's total rents is maximum.

Turning to the policy maker's choice, at stage one, criterion ***II*** is subsequently defined as,

$$G(AdP_{X=(s,s)}) = DCS((1-d)w_R) + DU((1-d)w_R) +$$
$$DPS((1-d)w_R) - C(AdP_{x=(s,s)}) \qquad (17)$$

Where, like in 4.1 ignoring any further costs; here associated with monitoring and detecting the fraction of employees eligible to the subsidy [say $+C(AdP_{x=(s,s)})$], the total costs of the subsidization policy are defined as,

$$C(AdP_{x=(s,s)}) = [(1-d)w_R][\sum_{i=1}^{2} N_{di}(w_{ndi}(s))] \qquad (18)$$

For all permissible [k, θ, d] it can be then checked that,

$$w_R \leq w_{RC};$$

$$w_{RC} = \frac{640k[7-2k]}{[(3093d+1451)k^2 - 64(114d+23)k + 1856(3d+1)] + 405k^2[(1-d)/q][8k-9]}$$

$$\Rightarrow$$

$$G(AdP_{X=(s,s)}) \geq 0 \qquad (II.2)$$

The interpretation of condition (*II*.2) is quite simple. Under the *de facto* subsidization of N_{di}-employment, in the emerging non-discriminatory equilibrium total employment and output will increase relative to the no policy/wage discrimination status quo. Henceforth, producer and consumer surpluses will be similarly higher. Of course, since under this policy both unions are seen to optimally set non-discriminatory wages, total union rents will as well increase in the equilibrium. Therefore, for the subsidization policy not to induce a net loss in social welfare the total subsidization costs [which are increasing with the upper bound of the reservation wage (w_R)] must be sufficiently low (see, Appendix F).

Our findings regarding antidiscrimination policy are now establishing Proposition 2.

Proposition 2: (i) *To combat wage discrimination, a benevolent policy maker operating under a balanced budget may alternatively,* ***(a)*** *Announce a vector of firm-specific taxes* $\bar{t}_i^*$*, per unit of* N_{di} *employment, to be imposed to firms i=1, 2, whenever they apply the discriminatory wage scheme,* ***(b)*** *Issue to firms i=1, 2, a uniform subsidy* $s = (1-d)w_R$*, per unit of* N_{di} *employment, whatever is their firm-specific wage configuration.* **(ii)** *Both policies result to non-discriminatory wage rates in the equilibrium. However, if the upper bound of the reservation wage is sufficiently low (e.g., if* $w_R \leq w_{RC}$*), the latter policy is superior to the former on efficiency grounds.*[10]

[10] It can be easily seen that, qualitatively, Proposition 2(ii) remains robust even if we allow for any (typically negligible) "excess loss of finance" of the subsidization policy. The same is true if we also allow for any $+C(AdP_{x=(s,s)})$; the latter costs are presumably not higher than the costs of detecting discrimination.

6.5 Conclusions

In this paper we have developed a union-oligopoly sectoral framework reasoning wage discrimination among equally-skilled workers, a phenomenon that apart from elsewhere is often observed in the heavily unionized European labour markets. Under quite regular assumptions regarding union behavior we have shown that, in the absence of an active antidiscrimination policy, wage discrimination is emerging as an implicit equilibrium arrangement among firms and unions. Four key elements are necessary for that. First, the equally skilled workers must be *ex ante* differentiated (grouped) according to different reservation wages. Second, unions must effectively embody all kinds (different reservation wage groups) of equally skilled workers. Third, collective bargaining must be decentralized at the firm level. Forth, the union power over the wage bargain must be sufficiently high.

Apart for the union power, there is adequate evidence that the above elements are often met in our reference sector(s). While the open shop union scheme is effectively sustained (recall footnote 4), firm-specific collective agreements are taking place in many European labour markets (see, e.g., Hartog and Theeuwes [1992]). Moreover, given the European migrant experience over the last decades, it is rather unlikely reservation wages to be uniform, even at the firm level.

Our analysis, though stylized, turns to be robust along a number of dimensions. First, qualitatively similar results would be obtained if we ignore for technological asymmetries among firms, consider product differentiation, or extent the analysis to the n (>2)-firm Cournot oligopoly, and thus subsequently consider the case of perfect competition. Regarding the mode of competition in the product market, moreover, the properties of total cost sub-additivity and unit cost invariance which are found to accompany wage discrimination imply that the latter would also emerge under Bertrand competition. On the other hand, depending on the relative weights assigned to the rents of each reservation wage group of workers, unions may still opt for wage discrimination even if we allow for a more “egalitarian” union objective function.

As it comes to our considered antidiscrimination policies, under monopoly unions, we propose that wage discrimination can be fought without that necessarily ensuing loss in social welfare. In particular, our findings imply that a penalization policy to deter wage discrimination, like the one we have considered, would always be

unpopular to the policy makers.[11] Yet, on the other hand we have shown that a subsidization policy would entail a net welfare gain provided that its costs are sufficiently low. Hence, our analysis further implies that the European Union antidiscrimination directives may in fact prove to be effective, on both egalitarian and efficiency grounds, insofar as they are escorted by a financial assistance scheme to policy makers covering at least a part of the total subsidization costs, including the sunk ones of setting up the monitoring system.

[11] Our conjecture is that even if the policy makers' objective is altered so as to capture political economy considerations, such a policy would still prove to incur a loss to them: Simply because the unions and the firms would definitely oppose it, while consumers would rather be indifferent.

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Appendix A

In the absence of an active antidiscrimination policy, unions will opt for the discriminatory wage contract, for all $1 > d > 0, w_R > 0,\ 0 < q_i \leq (>)1$.

$$U_i(w_{ndi}; w_{ndj}) - \{U_i(w_{0i}, w_{di}; w_{0j}, w_{dj})\} =$$

$$= \frac{784(d+1)^2 q w_R^2 - 448(d+1)kqw_R(5 + w_R + dw_R) + k^2\{675(d+1)^2)w_R^2 + 64q(5 + w_R + dw_R)^2\}}{21600k^2q} -$$

$$- \frac{\{10k + (d+1)(2k-7)w_R\}^2}{1350k^2} = -\frac{(d-1)^2 w_R}{32q};\ j \neq i = 1,2$$

Firms accommodate such discriminatory wage because they enjoy higher profits, for all $1 > d > 0, w_R > 0,\ 0 < q_i \leq (>)1$.

$$\Pi_i(w_{ndi}; w_{ndj}) - \{\Pi_i(w_{0i}, w_{di}; w_{0j}, w_{dj})\} =$$

$$= \frac{6400k^2q + 1280(d+1)k(2k-7)qw_R + \{2025(d-1)^2k^2 + 64(d+1)^2(7-2k)^2q\}w_R}{129600k^2q} -$$

$$\frac{(10k + (d+1)(2k-7)w_R)^2}{2025k^2} = -\frac{(d-1)w_R^2}{64q};\ j \neq i = 1,2$$

Firms' profits increase despite that their market shares remain invariant, because their total costs become sub-additive in N_{di} and N_{0i} via the discriminatory wage scheme. This, let us call it "diseconomies of scope" feature of wage discrimination, is explicitly portrayed in the following (firm-specific) cost differentials.

$$C_i(w_{ndi}; w_{ndj}) - \{C_i(w_{0i}, w_{di}; w_{0j}, w_{dj}) + (3)\} =$$

$$= \frac{3200k^2q + 320(d+1)k(4k+1)qw_R + \{-675(d-1)^2k^2 + 64(d+1)^2(k+4)(2k-7)q\}w_R^2}{43200k^2q} -$$

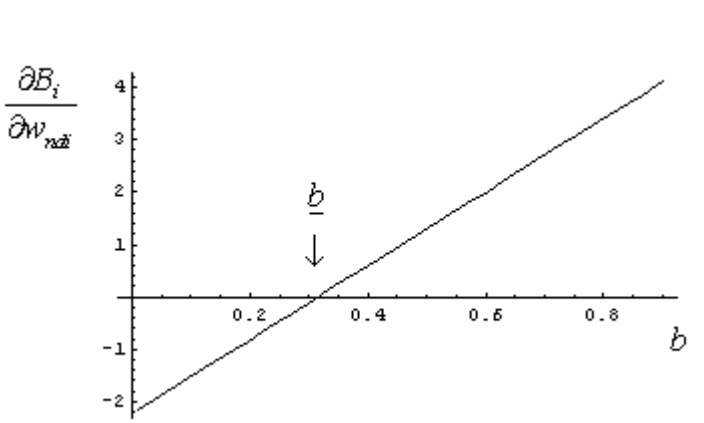
$$\frac{(5k + (d+1)(1+4k)w_R)(-10k + (1+d)(7k-2)w_R}{675k^2} = -\frac{(d-1)^2 w_R}{64q}$$

In the background, equation (11) is obtained since firms driven by the differentials in group-specific wage rates reallocate their group-specific employment levels so that,

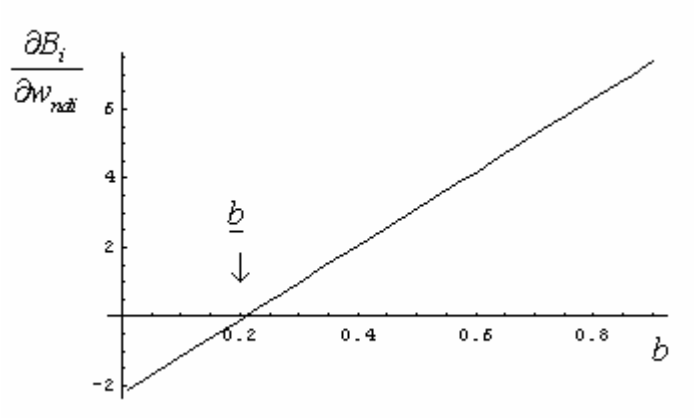
$$N_i(w_{ndi};w_{ndj}) - N_i(w_{0i},w_{di};w_{0j},w_{dj}) = (\frac{2}{9} + \frac{(1+d)(2k-7)w_R}{45k}) - (\frac{2}{9} + \frac{(1+d)(2k-7)w_R}{45k}) = 0$$

Appendix B

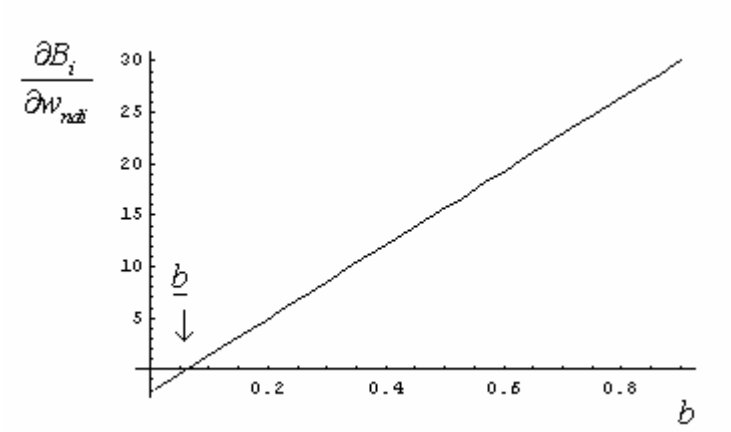
Assuming that w_R=0.01 and d=0.5 the foc_s of $B_{i(=1)}, w.r.t, w_{01}, w_{d1}$, are both found to be satisfied for $w_{01} \equiv w_{d1} \equiv w_{nd1} \equiv 0.1$, if b =0.35($\equiv \underline{b}$).



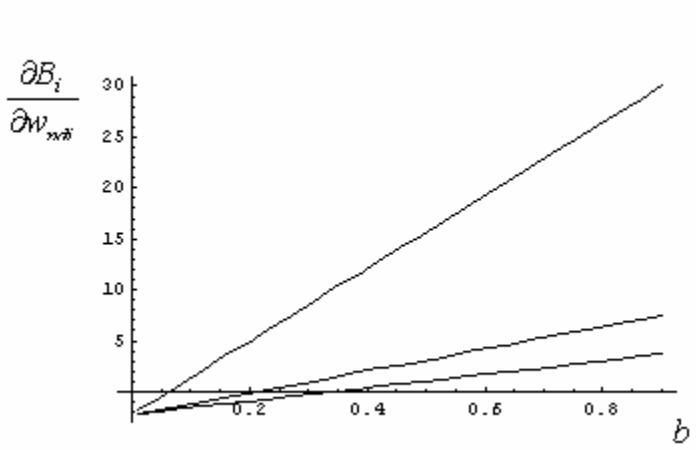
Assuming next that w_R =0.02 and d=0.6 the foc_s of $B_{i(=1)}, w.r.t, w_{01}, w_{d1}$, are both found to be satisfied for $w_{01} \equiv w_{d1} \equiv w_{nd1} \equiv 0.1$, if b =0.21($\equiv \underline{b}$).



Assuming also that w_R =0.09 and d=0.9 the foc_s of $B_{i(=1)}, w.r.t, w_{01}, w_{d1}$, are both found to be satisfied for $w_{01} \equiv w_{d1} \equiv w_{nd1} \equiv 0.1$, if b =0.07($\equiv \underline{b}$).



For completeness, we show the three cases simultaneously. It is rather clear that non-discriminatory firm-specific wage contracts do emerge in the sub-game equilibrium if unions' bargaining power over the wage is sufficiently low.



Appendix C

The rent differentials obtained from deviation to firm-specific wage discrimination can be then defined as,

$$U_i^{\,d} \equiv U_i(w_{0i}(t_i), w_{di}(t_i); w_{ndj}) - U_i(w_{ndi}; w_{ndj}) \equiv$$
$$\equiv t_1(675k^2 + 784q) + 675(d-1)^2 k^2 w_R^2 +$$
$$+ 2t_1\{675(d-1)k^2 w_R + 784(d+1)qw_R - 224kq(5 + w_R + dw_R)\}$$

$$U_j^{\,d} \equiv U_j(w_{ndi}; w_{0j}(t_j), w_{dij}(t_j)) - U_j(w_{ndi}; w_{ndj}) \equiv$$
$$\equiv -448t_2(d-1)w_R + k\{1459t_2^2 + 675(d-1)^2 w_R^2 + (218w_R - 2240 + 2918dw_R\}$$

Let next $[\,t_1^{\,*}, t_2^{\,*}\,]$ be the roots of $U_i^{\,d} = 0$ securing interior solutions for all our variables,

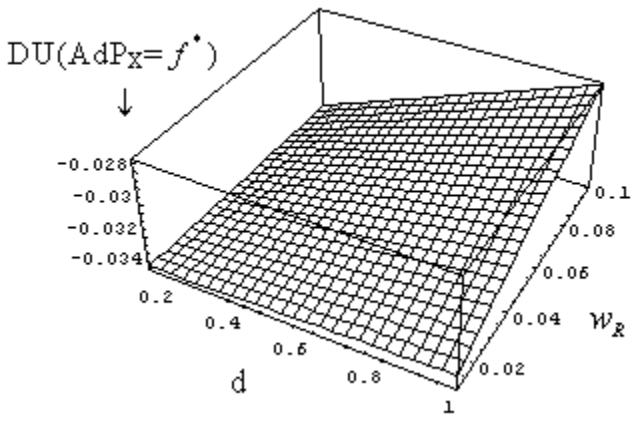
$$t_1^{\,*} = -\frac{1}{1350k^2 + 1568q}[1350(d-1)k^2 w_R + 1568(d+1)qw_R - 448kq(5 + w_R + dw_R) +$$
$$+ \sqrt{-2700(d-1)^2 k^2 (675k^2 + 784q)w_R^2 + \{1350(d-1)k^2 w_R + 1568(d+1)qw_R - 448kq(5 + w_R + dw_R)\}^2}\,]$$

$$t_2^{\,*} = \frac{448w_R(d+1) + k\{2240 - 2(109 + 1459)w_R\} - \sqrt{-3939300(d-1)^2 k^2 w_R^2 + \{-448(d+1)w_R - 2240k + (218 + 2918d)w_R)^2\}}}{2918k}$$

Appendix D

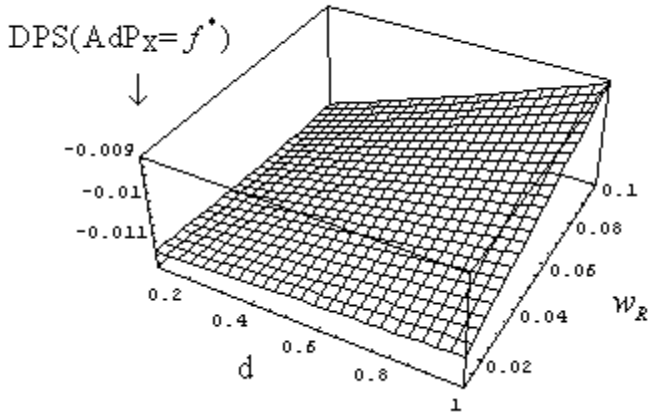
For instance, for all for $k = 1.01$, $q = 0.5$, $d = \{0.1,1\}$ and $w_R = \{0.01,0.1\}$, it is found that deviations,

- $\mathrm{DU}(\mathrm{AdP_X} = f^*) = \{\sum_{i=1}^{2} U_i(w_{01}(t_1), w_{d2}(t_1); w_{nd2}) - \sum_{i=1}^{2} U_i(w_{nd1}; w_{nd2}) < 0$

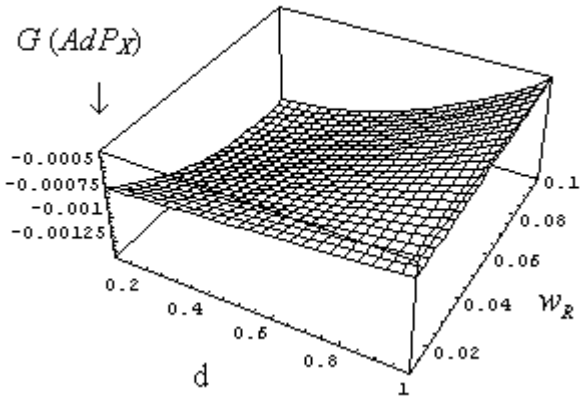


- DPS($AdP_X = f^*$)

$$= \{\sum_{i=1}^{2} PS_i(w_{01}(t_1), w_{d2}(t_1); w_{nd2}) - \sum_{i=1}^{2} PS_i(w_{nd1}; w_{nd2}) < 0$$



- $G(AdP_X) \equiv \{DCS(AdP_X) + DU(AdP_X) + DPS(AdP_X)\} < 0$



Appendix E

The s_i value(s) needed to induce non-discrimination are derived by simply repeating the algorithm,

- $U_i(w_{01-s}, w_{d1-s}; w_{nd2}) - U_i(w_{nd1-s}; w_{nd2-s}) = \frac{(s+(d+1)w_R)^2}{32q}$

The s-roots of the above differential securing interior solutions, are then found to be respectively the following.

$s_i \equiv s = (1-d)w_R; i = 1,2,$

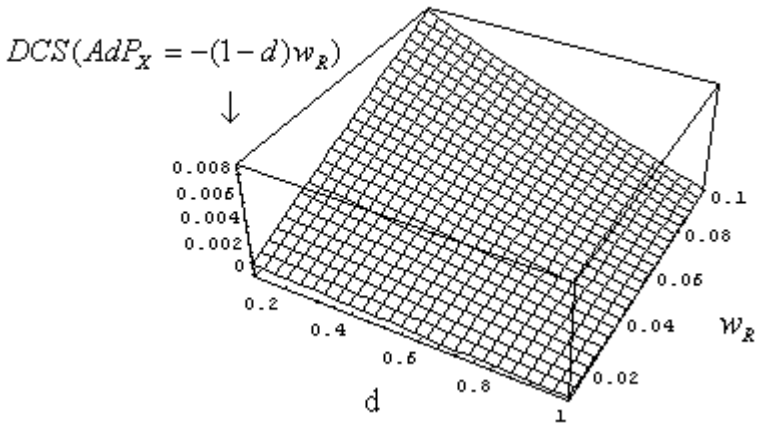
Hence, if $s = (1-d)w_R$ both unions will have no incentive to independently deviate from non-discrimination.

Appendix F

For instance, for all for $k = 1.01$, $q = 0.5$, $d = \{0.1,1\}$ and $w_R = \{0.01,0.1\}$, it is found that deviations,

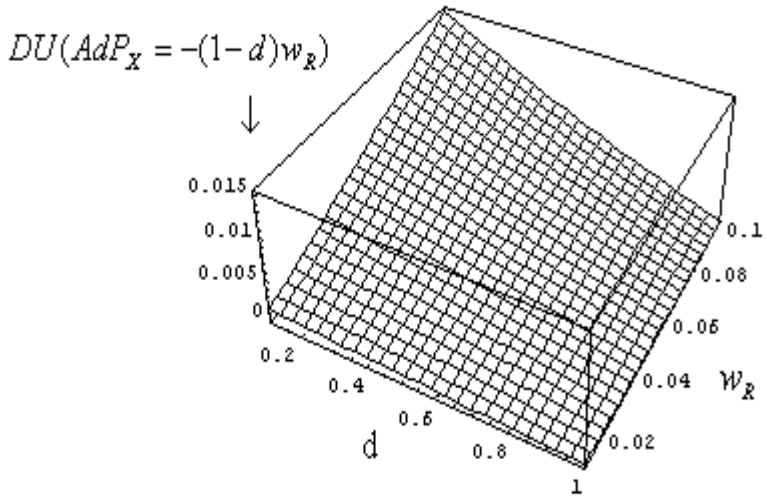
- $DCS(AdP_X = -(1-d)w_R)$

  $= \{\sum_{i=1}^{2} x_i(w_{nd1-s}, w_{nd2-s}))^2 - \sum_{i=1}^{2} x_i(w_{01}, w_{d1}, w_{02}, w_{d2}))^2\}/2 > 0$



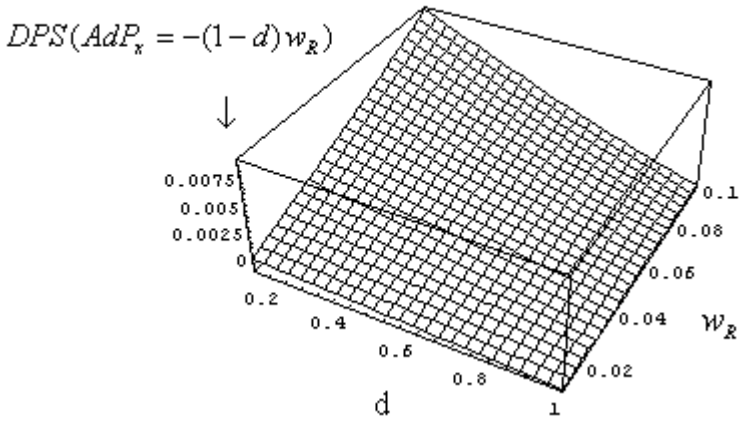
- $DU(AdP_X = -(1-d)w_R)$

$$= \{\sum_{i=1}^{2} U_i(w_{nd1-s}, w_{nd2-s}) \; - \sum_{i=1}^{2} U_i(w_{01}, w_{d1}, w_{02}, w_{d2})\} > 0$$

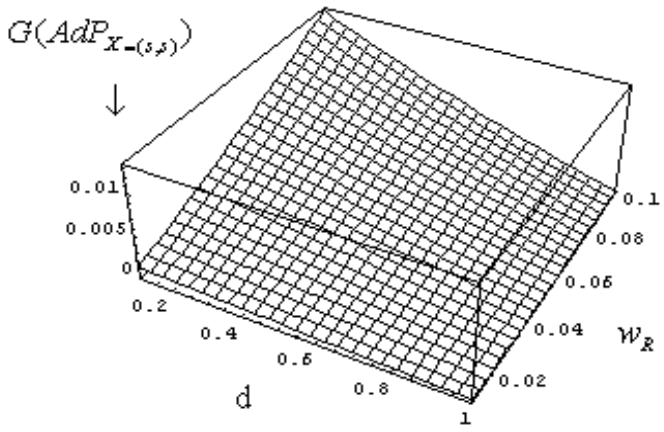


- $DPS(AdP_x = -(1-d)w_R)$

$$= \{\sum_{i=1}^{2} \Pi_i(w_{nd1-s}, w_{nd2-s}) - \sum_{i=1}^{2} \Pi_i(w_{01}, w_{d1}, w_{02}, w_{d2})\} > 0$$



- $G(AdP_{X=(s,s)}) \geq 0$



Chapter 7

Corporate Social Responsibility and Wage Discrimination in Unionized Oligopoly [1]

7.1 Introduction

The European economy has recently experienced a rapid growth of interest in the exertion and the implications of corporate social responsibility (csr) in the labour market. Perhaps because, according to the public stereotyping, workers are thought to be among the key stakeholders in any firm, and there is evidence on the increasing importance which consumers attach to companies who demonstrate their social responsibility by practically recognizing it. These are some of the key findings of the European Business Test Panel (EBTP [2005]) survey which examines the businesses case for diversity and their benefits across European Union (25). The vast majority (0.830) agreed that diversity initiating had a positive impact on their business. While, a major benefit of diversity, receiving a score 0.380, is its ability to enhance a firm's reputation and image, and its standing within local communities. At the same time, and in particular, the higher participation of ethnic minorities, the elderly, and people with disabilities in the labour market, challenge firms to adopt diversity and antidiscriminatory schemes, while an increasing number of firms are indeed doing so.[2] Not necessarily for ethical and legal reasons, but rather for the economic benefits which such policies are expected to deliver[3].

Turning to the institutions, the European Union in fact seems to be ahead of those trends by issuing, since 2000, the antidiscrimination Employment Directive

[1] This study could not have been made without M. Vlassis' – Associate Professor of Economics at the University of Crete - constructive help and feedback. Also, I am grateful to E. Petrakis – Professor of Economics at the University of Crete. I have benefited from comments and suggestions made during the presentations of an earlier version of this paper at the *CORE 2007* Conference on "The Potential of Corporate Social Responsibility to Support the Implementation of the European Union Sustainability Strategy", held in Milan, Italy.

[2] Based on the EBTP (2005) survey, just under half (0.480) of all businesses responding are actively engaged in promoting workplace diversity and anti-discrimination.

[3] For many firms legal compliance is a crucial reason for adopting anti-discriminatory policies. Yet, the driven incentive is the desired outcome (EBTP [2005]).

(see, Chapter Three) establishing the principle of diversity and non-discrimination. While, according to the resolutions of the World Summit on Sustainable Development (2002), a "partnership between firms, government, and civilians" has considered to be the key to progress on international sustainable development. Firms have therefore been assigned a two-fold role in enabling the society to reap the benefits of globalization: To exert (corporate) social responsibility regarding ethnic or other minorities in the labour market and also report that responsibility.

It thus seems that exerting (and informing the public about) *csr* in the labour market, as well as elsewhere, should today be amongst the firms' priorities. While, apart from setting up minimum legal standards for the minorities, the role of policy makers should in turn be to raise the public awareness on the benefits which such a firms' proactive approach can bring to the society.

The scope of this study is to explore, along the previous lines, the case(s) of equality versus discrimination in the labour market, with a view to assess the factors and policies addressing either instance. In particular, and given the European Union Antidiscrimination Employment Directive, our focus is on aspects of pay discrimination. To this end, the empirical evidence provides a strong indication that discriminatory treatment, as in particular regards ethnic minority groups and economic migrants in Europe, is still significant, and it might be related with other than productivity factors (see, Chapter Four).

The theoretical foundations of labour market discrimination go back to the seminal papers of Becker, and Arrow (see, Chapter One). Briefly, in Becker's (1957) approach, discrimination arises from "a taste for discrimination" against minority workers on the part of employers, while in Arrow's (1972) "statistical discrimination" hypothesis, it results from the employers' uncertainty about the individual quality of workers, which is biased against minority workers. In this study, while we maintain uncertainty, yet unbiased, on the part of employers, we clearly abstain from any taste to discriminate on the part of anyone and against anybody.

In a context of union-oligopoly decentralized bargaining we propose that wage discrimination among equally-skilled workers may endogenously emerge as long as workers can be *ex ante* grouped according to their reservation wages (see, Chapter six). On the other hand nonetheless consumers may ceteris paribus attach higher valuation to the product of a firm which exerts *csr* by not discriminating in pay against anyone of its employees; of course, so long as they are informed about that.

Hence, though wage discrimination seems to be the unions' optimal choice whenever consumers are ignorant and/or they do not care about non-discrimination in wages, firms may independently achieve higher profits by strategically opting for non-discrimination in wages and advertising it as an exertion of *csr*. If, by doing so, they can vertically differentiate their product enough to compensate for both the *csr*-advertisement costs and the higher unit costs of production which non-discrimination relative to discrimination entails. Such an option of strategic *csr* on the part of firms may in turn prove to be compatible with the unions' best interest, as well, if the consumers' valuation of non-discrimination is sufficiently high.

If not, we subsequently propose that in order to deter wage discrimination a policy maker should instead of firms undertake *csr*-advertisement in the event of non-discrimination in wages. Yet, such an antidiscrimination policy would always entail a net loss in social welfare.

The rest of the paper is organized as follows. In section 2 we develop our structural model envisaging a unionized industrial sector where two firms producing *ex-ante* horizontally differentiated goods compete *a la* Cournot. Both firms may as well differentiate *ex-post* their products, vertically, in the event of firm-specific *csr*/ non-discrimination in wages. Under decentralized union-oligopoly bargaining, and in the presence of *ex-ante* grouping of the sector's workers according to different reservation wages, the postulated sequence of events is subsequently explained. Solving that game in section 3 we show that, and reason why, in the absence of an active anti-discrimination policy non-discrimination in pay may (or may not) endogenously emerge. Based upon these findings, in section 4 we propose a public *csr*- advertisement policy to deter wage discrimination, with an explicit view of its welfare effects. Our findings are conclusively evaluated in Section 5.

7.2 The Model

The product market of our reference industrial sector X consists of two unionized firms which compete *a la* Cournot in differentiated goods. We assume that each firm produces with *constant returns to scale* in only the labour input, given that the deployed capital input is always sufficient to produce the good. Specifically, the production function of each firm is $x_i = k_i N_i ;\ i = 1,2,$ where x_i denotes output, N_i is

the number of equally-skilled employees of firm *i*, and k_i is the productivity of labour in firm i. Restricting our analysis to firms with equally efficient production technologies we moreover normalize $k_i = 1$.

The population of consumers in our envisaged product market is comprised of individuals with identical tastes. All of them, perceiving *csr* exerted by any firm as an improvement in the quality of the firm's product. Let this improvement be of a measure $h \in \Re^+$ whenever in particular the firm does not discriminate wages across its employees.

Of course, such a perception for quality improvement materializes only so long as consumers are being informed about that. Let hence $s_i \in [0,1]$ be a measure of the information received by the representative consumer about non-discrimination in wages on the part of firm *i*. Equivalently, s_i measures the probability with which the representative consumer will receive information about the latter event. Then, like in Hackner (2000), Garella and Petrakis (2005), our postulated preferences specification combines (possible) vertical differentiation with standard [*a la* Dixit (1979)] horizontal/brand differentiation. In particular, the utility function of the representative consumer in sector *X* is given by,

$$u(x_i, x_j, m) = (1 + hs_i)x_i + (1 + hs_j)x_j - (x_i^2 + x_j^2 - 2gx_i x_j)/2 + m \qquad (1)$$

Where x_i ; $i \neq j = 1,2,$ stands for the quantity of the good/brand *i* bought by the representative consumer, *m* is the respective quantity of a composite good (produced by the rest of the economy and sold at a price which is normalized to unity), and $g \in (0,1)$ is a measure of substitutability among brands in sector *X*[4]. Note that, only if $s_i > 0$, *h* enters in the representative consumer's utility function additively, thus implying a vertical shift (of a measure $hs_i \in \Re^+$) in her demand function for brand *i*.

[4] If $\gamma \to 0$ these brands are regarded as (almost) unrelated whereas $\gamma \to 1$corresponds to the case of (almost) homogeneous goods/brands.

Normalizing the population of consumers to unity, the maximization of (1) *w.r.t.* [x_1, , x_2, m], subject to the representative consumer's budget constraint, subsequently delivers the inverse demand function for brand/firm *i*,

$$p_i = 1 + hs_i - x_i - gx_j \; ; j \neq i = 1,2. \tag{2}$$

Note now that s_i effectively stands for the percentage of the total consumer population which are informed about the exertion of *csr* by firm *i*, whenever the latter firm does not discriminate wages. Informing consumers about *csr*/wage non discrimination is however costly. Hence, for vertical differentiation to be materialized, a *csr*-advertisement cost must be incurred by firm *i* (or by someone else), whenever this firm does not discriminate wages. [5] Assuming that the advertisement technology subjects to ***decreasing returns*** let this cost be,

$$C_i^A = \frac{1}{2} s_i^2 \; ; s_i \in [0,1] \qquad . \tag{3}$$

Hence, the following profit formula arises for firm $; i \neq j = 1,2$ in sector *X*.

$$\Pi_i = (1 + hs_i - x_i - gx_j) x_i - C_i(x_i) - C_i^A \tag{4}$$

Where $C_i(x_i) = C_i(N_i)$ stands for the production/labour costs of firm $i(=1,2)$, and $C_i^A \geq 0$ if $s_i \geq 0 (\Rightarrow hs_i \in [0, \Re^+])$. [6]

Turning our attention to the structure and conditions of the labour market in sector *X*, we assume, alike Chapter Six that the (presumably) equally-skilled workers who find a job within each I firm are ***by default*** organized in to the firm's trade union.

[5] Verification of firm-specific *csr*/ wage non-discrimination can be assured if the particular firm (or someone else) delegates the relevant information processing to an independent agent, for instance to an advertisement company, with established credibility.

[6] In case of course the firm *i*, and not someone else, undertakes csr-advertisement.

Hence, the union's i objective function can be reasonably addressed as the following idiosyncratic variant of the Oswald's (1982) total rents formula

$$U_i = (w_{0i} - w_R)N_{0i} + (w_{di} - dw_R)N_{di}\ ; i = 1,2 \qquad (4)$$

On the other hand, given the above union membership configuration and assuming that employers are [unlike in Arrow (1972)] unbiased about the relative productivity of workers belonging to various groups, additional costs are implied in (2) whenever employment is not "balanced" among groups. Following De Fontenay and Gans (2005) let specify those costs to be[7],

$$q_i[N_{0i} - N_{di}]^2 ; i = 1,2 \qquad (5)$$

Where q_i is normalized: $q_1 \equiv q \leq (>)1;\ q_2 \equiv 1.$

Given the European Council Antidiscrimination Directives (particularly #78), the sequence of events (see Fig.1) arising in the above context is then as follows.

At stage one a benevolent policy maker, operating under balanced budget, handles a policy instrument (g) with the aim to combat wage discrimination in the labor market of sector *X*. The policy maker is driven by the following lexicographic objective.

○ *Activates the policy instrument* (e.g., $g \neq 0$) *so long as it is necessary and sufficient to induce non-discrimination in wages across employees, in each i firm, in the equilibrium.*

[7] In the cited authors' context this specification implies that, to the eyes of firms, distinct input suppliers (workers with different reservation wages in our context) provide imperfect substitute inputs.

●○ *Chooses the value of the policy instrument so as to maximize (minimize) the following gain (loss) function*:

$$G(g) \equiv DSW_{g\neq 0} \equiv DCS(g) + DU(g) + D\Pi(g) - C(g) \qquad (6)$$

Where, given the no-policy *status quo*, the operator *D* refers to the *X*-sector-specific derived differential in social welfare ($SW_{g\neq 0}$) in case that $g \neq 0$, relative to the case where $g = 0$. This differential, as typical, consists of similar differentials in *Consumer Surplus (CS), Union Rents (U), and Profits (PS)*, and $C(g)$ is a measure of the $g \neq 0$ ensuing costs.

At stage two decentralized wage bargains are conducted in each firm-union pair *i*, whilst firm-specific employment decisions are left to each firm's discretion. Given that the prospective employees/union members are *ex ante* differentiated regarding their reservation wages, our interest is at this stage focused on whether firm-union bargaining will *ex post* deliver discriminatory (**D**) or non-discriminatory (**ND**) firm-specific wage rates. Respectively that is, whether $w_{0i} \neq w_{di}$ or $w_{0i} = w_{di} = w_{ndi}$ in the (sub-game) equilibrium. We moreover assume that each union *i*, possesses all the power over the firm-specific wage bargain (*monopoly union*).

At stage three, if the firm-specific wage contract is non-discriminatory (e.g., **ND**; $w_{0i} = w_{di} = w_{ndi}$), each i firm chooses $s_i \in [0,1]$, optimally, so as in the continuation of the game adequately advertise non-discrimination in firm-specific wages as an exertion of firm-specific *csr*;. Otherwise (e.g., **D**; $w_{0i} \neq w_{di}$), firm i by default sets $s_i = 0$.

At stage four all firms simultaneously and independently adjust their employment/output levels.[8]

[8] Note that, as it will be explicitly addressed later on, in case that under the no policy *status quo* $s_i = 0$ emerges at stage three, our postulated *PM*'s objective dictates that, if $g \neq 0$,

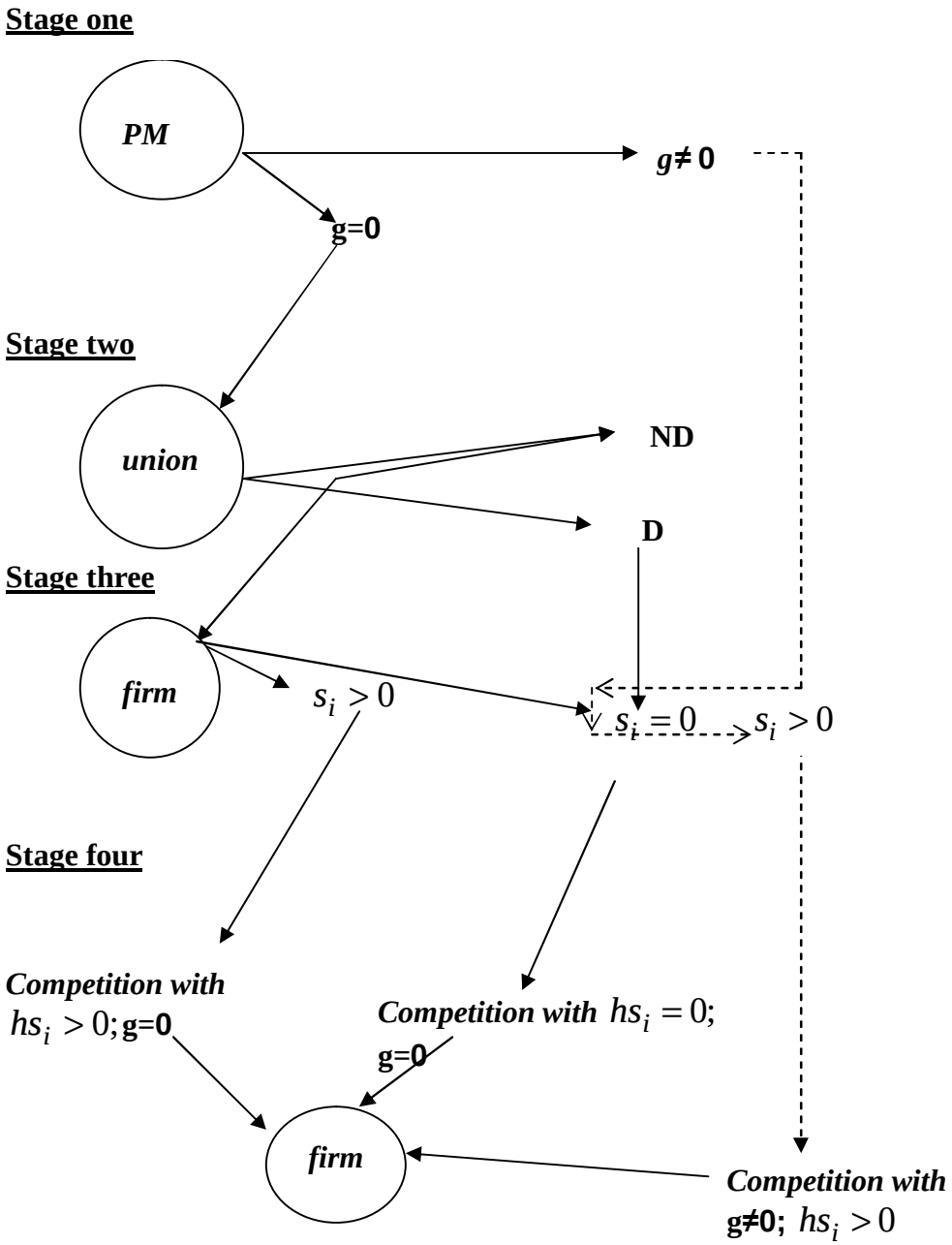


Figure 1: Sequence of Events

7.3 Corporate Social Responsibility versus Wage Discrimination

Assume for the moment that the no-policy *status quo* prevails at stage one. Solving the game by backwards induction, at stage four each *i* firm independently

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then $s_i > 0$.

adjusts its employment/output so that to maximize its own profits (4). Since $x_i = N_{0i}(\equiv x_{0i}) + N_{di}(\equiv x_{di})$; $i = 1,2,$ the sub-game equilibrium is then defined by the vectors (x_{01}, x_{d1}), (x_{02}, x_{d2}) which respectively maximize (7.1), (7.2) below.

$$\Pi_1 = \{[1 + hs_1 - (x_{01} + x_{d1}) - g(x_{02} + x_{d2})](x_{01} + x_{d1}) - (x_{01}w_{01} + x_{d1}w_{d1}) - q(x_{01} - x_{d1})^2 - s_1^2/2\} \quad (7.1)$$

$$\Pi_2 = \{[1 + hs_2 - (x_{02} + x_{d2}) - g(x_{01} + x_{d1})](x_{02} + x_{d2}) - (x_{02}w_{02} + x_{d2}w_{d2}) - (x_{02} - x_{d2})^2 - s_2^2/2\} \quad (7.2)$$

The *f.o.cs* yield the following group-specific optimal employment/output rules for firm(s) $i \neq j = 1,2$.

$$x_{0i} = \frac{q_i[8\{(1 + hs_i) - w_{0i}\} - 2g\{2(hs_j + 1) - (w_{0j} + w_{dj})\}] - g^2(w_{0i} - w_{di})}{8q_i(4 - g^2)} \quad (8)$$

$$x_{di} = \frac{q_i[8\{(1 + hs_i) - w_{di}\} - 2g\{2(hs_j + 1) - (w_{0j} + w_{dj})\}] + g^2(w_{0i} - w_{di})}{8q_i(4 - g^2)} \quad (9)$$

Summing up by pairs (8)-(9) and rearranging, we may subsequently get a regular system of reaction functions, $x_i = RF_i(x_j)$, given the firms' $i \neq j = 1,2$ unit cost(s) of production, $(w_{0i} + w_{di})/2$, average over N_{0i}, N_{di}.

$$(x_{01} + x_{d1}) \equiv x_1 = \frac{1 + hs_1 - gx_2 - [(w_{01} + w_{d1})/2]}{2} \quad (10.1)$$

$$(x_{02} + x_{d2}) \equiv x_2 = \frac{1 + hs_2 - gx_1 - [(w_{02} + w_{d2})/2]}{2} \qquad (10.2)$$

Solving (10.1)-(10.2) we in turn obtain the firm-specific total employment/output rules, (11.1), (11.2), which as expected imply strategic substitutability among the $i \neq j = 1,2,$ unit costs of production Moreover, $s_{i \neq j=1,2}$ are similarly seen to be strategic substitutes from the point of view of firms $i \neq j = 1,2..$

$$(x_{01} + x_{d1}) \equiv x_1 = \frac{2hs_1 - 2[(w_{01} + w_{d1})/2 - 1] + g[(w_{02} + w_{d2})/2 - (1 + hs_2)]}{4 - g^2} \qquad (11.1)$$

$$(x_{02} + x_{d2}) \equiv x_2 = \frac{2hs_2 - 2[(w_{02} + w_{d2})/2 - 1] + g[(w_{01} + w_{d1})/2 - (1 + hs_1)]}{4 - g^2} \qquad (11.2)$$

Let us next consider stage three. As postulated, if the firm-specific wage contract derived from stage two is non-discriminatory (i.e., $w_{0i} = w_{di} = w_{ndi}$), each i firm optimally chooses $s_i \in [0,1]$ so as to adequately advertise it as an exertion of *csr* on the firm's part in the continuation of the game.

Let, for the moment, assume that $w_{0i} = w_{di} = w_{ndi}$; $i \neq j = 1,2,$ emerges at stage two in the (sub-game) equilibrium. In such an event, by substituting $(w_{0i} + w_{di})/2 = w_{ndi}$, through (11.1)-(11.2), into (7.1)-(7.2), and maximizing $w.r.t\, s_1, s_2,$ the optimal s_i rules are found to be,

$$s_1 = s_2 = \frac{4h(1 - w_{nd})}{(2 - g)(2 + g)^2 - 4h^2} \qquad (12)$$

Let finally consider stage two. Given that firm $1[2]$ will unilaterally choose its output/employment level, $N_1 = ((x_{01} + x_{d1}) \equiv x_1$ $[N_2 = (x_{02} + x_{d2}) \equiv x_2]$, so that to

satisfy (11.1) [(11.2)], and that firms would in any case allocate output/employment, across the - N_{0i}, N_{di} - groups of their employees, according to (8.1)-(9.2), union $1[2]$ unilaterally and independently from union $2[1]$ determines the firm-specific wage contract so as to maximize its total rents (4). Recall nonetheless that $w_{0i} = w_{di} = w_{ndi}$; $i \neq j = 1,2,$ is previously addressed to be the candidate equilibrium. Therefore, substituting $(w_{0i} + w_{di})/2 = w_{ndi}$, through (11.1)-(11.2), into (4), given (12), from the *f.o.c*$_s$ of the derived total rents formulae *w.r.t* w_{nd1}, w_{nd2}, we easily get the following non-discriminatory wage rate(s).

$$w_{nd1} = w_{nd2} = w_{nd} = \frac{[2 + w_R(1+d)][2(2-h^2) - g^2] - g(4-g^2)}{8(2-h^2) - g[(4-g^2)+4]} \qquad (13)$$

By means of (12), the following optimal level(s) of *csr*-advertisement in turn arise in the (candidate) non-discriminatory equilibrium.[9]

$$s_1 = s_2 \equiv s_b = \frac{4h[w_R(1+d) - 2][2h^2 - 4(1-g^2)]}{[4h^2 - (2-g)(2+g)^2][g\{4 + (4-g)g\} - 8(2-h^2)]} \qquad (14)$$

To check however whether (13)-(14) comprise part of a (sub-game perfect) *Nash* equilibrium, let consider a unilateral deviation (d1) from the candidate equilibrium on the part of union 1. That is, at stage two, and before the firm-specific wage scheme is announced , union 1 considers setting $w_{01} \neq w_{d1}$ instead of $w_{01} = w_{d1} = w_{nd1}$, given that $w_{nd2}; s_2(\equiv s_2^{d1}); s_1 = 0$ will be consistently (e.g., given $w_{01} \neq w_{d1}$) chosen, respectively by union 2, firm 2, and firm 1, in the continuation of the game.[10] The following $[w_{01}, w_{d1}, w_{nd2}, s_2]$ configuration is then seen to arise.

[9] It can be readily checked that, if $(w_R, h, g, d) \in (0,1)$, then $0 < s_b < 1$.

[10] We therefore postulate that stage two effectively consists of two sub-stages without delay.

$$w_{01} = \frac{[4(g-2)^2(2+g)(4+g) - 64h^2] + [(2-g)(2+g)\{8-(1-d)\} - 64h^2]w_R}{4[32(2-h^2) - g^2(20-g^2)]} \tag{15}$$

$$w_{d1} = w_{01} - \frac{(1-d)w_R}{2} \tag{16}$$

$$w_{2nd} = \frac{\{32 - [g\{8 + g(12-g)\} + h^2(16-4g)]\} + [(1+d)(4+g)\{4-(g^2+2h^2)\}]w_R}{32(2-h^2) - g^2(20-g^2)} \tag{17}$$

$$s_2{}^{d1} = \frac{2h[4 - 2g\{1 - (w_{01} + w_{d1})/2\} - 4w_{2nd}]}{(g^2-4)^2 - 8h^2} \tag{18.a}$$

$$s_2{}^{d1} = \frac{4h[2 - w_R(1+d)][(g-2)^2(g+2)(g+4) - 4h^2(4-g)]}{[32(2-h^2) - g^2(20-g^2)][(g^2-4)^2 - 8h^2]} \tag{18.b}$$

In consequence, for expository purpose considering $w_R = 0.1; g = q = 1$, the union's incentive to unilaterally deviate from the candidate non-discriminatory equilibrium [(13)], opting for a firm-specific discriminatory wage contract [(15) and (16)], depends on the sign of the following union rent differential (see Fig. 2a).[11]

$$DU = DU_1 \equiv [U_1{}^{d1}(w_{01}, w_{d1}; w_{nd2}) - U_{nd12}(w_{nd1}; w_{nd2})] =$$

$$\{[(3-2h^2)(1.9-0.1d)^2][\frac{(15-16h^2)}{2(9-8h^2)[32(2-h^2)-19]^2}$$

$$-\frac{(9-12h^2)}{2(9-4h^2)[8(2-h^2)-7]^2}] + \frac{0.01(1-d)^2}{64}\} \tag{19}$$

[11] The $-[(w_R, h, g, d) \in (0,1); q > (\leq 1)]-$arising formulae of *DU* and *D*Π [see (20) below] are available upon request.

On the other hand, to find out whether such a deviation is also compatible with the firm's best interest, we need further to check the sign of the following profit differential (see Fig. 2a).

$$D\Pi = D\Pi_1 \equiv [\Pi_1^{d1}(w_{01}, w_{d1}; w_{nd2}) - \Pi_{nd12}(w_{nd1}; w_{nd2})] =$$

$$\{[(3-2h^2)(1.9-0.1d)^2][\frac{(15-16h^2)}{(9-8h^2)[32(2-h^2)-19]^2}$$

$$-\frac{(9-8h^2)}{(9-4h^2)[8(2-h^2)-7]^2}] + \frac{0.01(1-d)^2}{64}\} \qquad (20)$$

Figure2a: Incentives to discriminate;

Low $w_R = 0.1; g = q = 1$

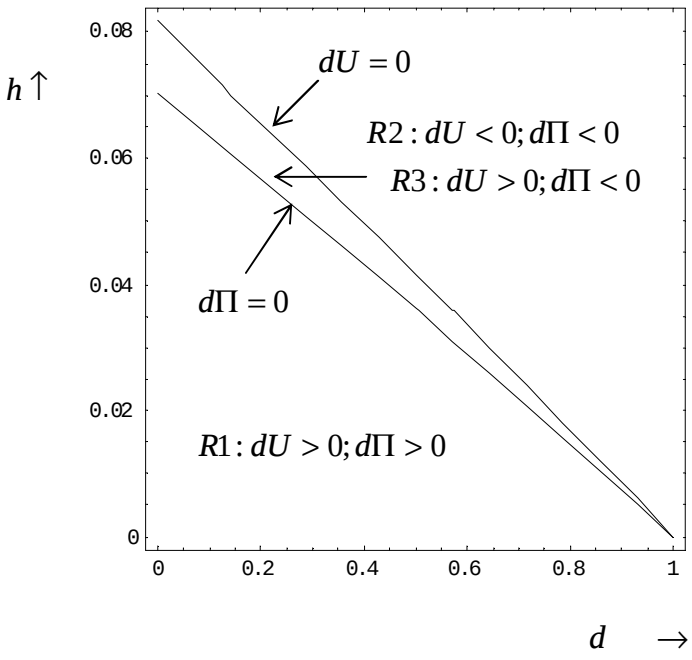


Figure 2b: Incentives to discriminate;

High $w_R = 0.3; g = q = 1$

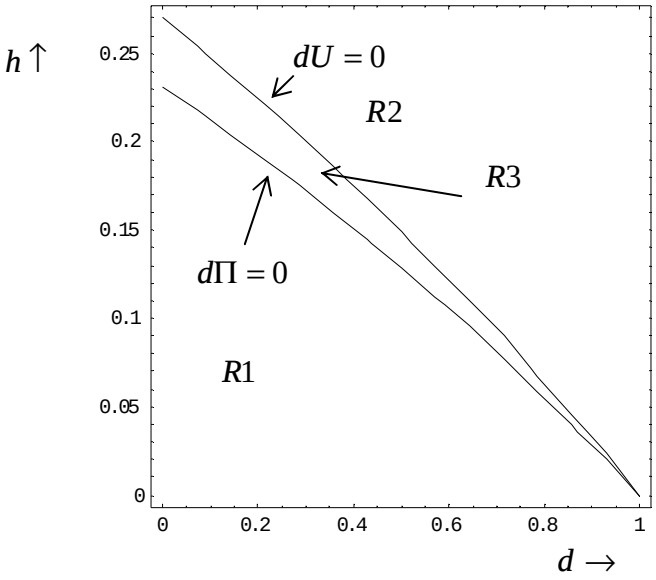


Figure2c: Incentives to discriminate;

Low $q = 0.5; g = 1; w_R = 0.1$

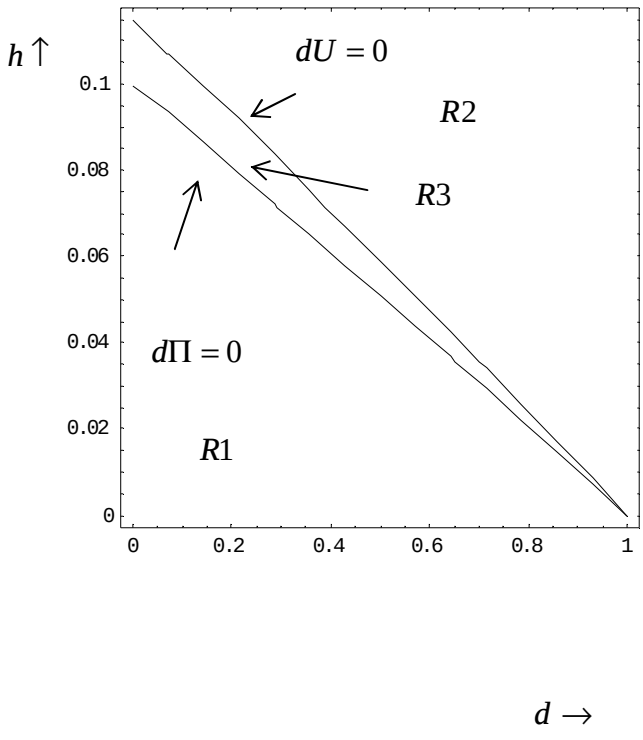
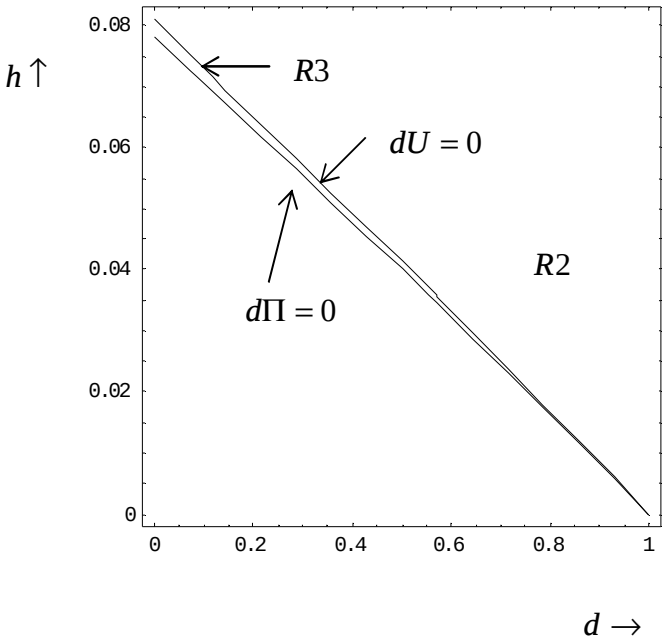


Figure2d: Incentives to discriminate;

Low $g = 0.5; q = 1; w_R = 0.1$



As illustrated in Fig. 2a, each of differentials (19) - (20) defines a similar -downwards sloping- locus in the $[h, d] \in [0,1]$ space. Thus, the latter space is partitioned into the following regions.

$$R1: dU > 0; d\Pi > 0,\ R2: dU < 0; d\Pi < 0,\ \ R3: dU > 0; d\Pi < 0.$$

These partitions are then seen to establish the following lemma.

Lemma 1

For any given $0 < d < 1$, *and* $(w_R, g, q) \in (0,1]$, there exist $\underline{h}_U, \underline{h}_\Pi ; \underline{h}_U(d)' < 0; \underline{h}_\Pi(d)' < 0$ **: (i)** $DU > (<)0$ *if* $h < (>)\underline{h}_U$.

(ii) $D\Pi > (<)0$ *if* $h < (>)\underline{h}_\Pi$.

(iii) $\underline{h}_U > \underline{h}_\Pi$.

For instance, if $\bar{d} \cong 0$, *and* $w_R = 0.1; g = q = 1$, *then* $DU > (<)0$ *if* $h < (>)\underline{h}_U \cong 0.085$*; whilst,* $D\Pi > (<)0$ *if* $h < (>)\underline{h}_\Pi \cong 0.075$.

To check the robustness of lemma 1 we have performed all possible partitions in response to changes in the $(w_R, g, q) \in (0,1)$ configuration; whilst lemma's 1's suggestions remained qualitatively invariant, quite intuitive insights have been moreover by that means arisen. As Fig. 2b shows, both $\underline{h}_U, \underline{h}_\Pi$ increase with w_R, yet it remains $\underline{h}_U > \underline{h}_\Pi$; whilst, $\underline{h}_U, \underline{h}_\Pi$ decrease with q similarly (see Fig.2c).[12] On the other hand (see Fig.2d), while $\underline{h}_U$ remains invariant, $\underline{h}_\Pi$ decreases with g, hence, as g decreases $\underline{h}_\Pi$ converges to $\underline{h}_U$ (thus $R3$ shrinks).

To interpret those findings and conclude regarding the *Nash* equilibrium let us analytically examine what happens at stage four, in the event of a unilateral deviation (on the part of union 1) from non-discrimination in wages at stage two. Considering the symmetric-firms case (e.g., $q = 1$), the following differentials are for that quite illuminating,

$$Dunit \cos t_{12} \equiv \{[(w_{01} + w_{d1})/2] - w_{2nd}\} = \frac{2gh^2[w_R(1+d)-2]}{32(2-h^2) - g^2(20-g^2)} \tag{21}$$

[12] Note that, thus addressing the case $q_1 \equiv q < 1 < q_2 \equiv 1$, and since (as it will become evident later on) discrimination incentives decrease with q, we do not need to (also) consider a similar unilateral deviation on the part of union 2 in order to check for the non-discriminatory *Nash* equilibrium when firms are asymmetric.

$$Dx_{12} \equiv [x_1^{d1} - x_{2nd}] = \frac{2h^2[16(2-h^2) - g^2(12-g^2)][w_R(1+d)-2]}{[(4-g^2)^2 - 8h^2][32(2-h^2) - g^2(20-g^2)]} \tag{22}$$

Where, in the background of (22) the following reaction functions are operative (see Fig.3).

$$x_1^{d1} \equiv RF^{d1}(x_{2nd}) = \frac{1 - gx_{2nd} - [(w_{01} + w_{d1})/2]}{2} \tag{23}$$

$$x_{2nd} \equiv RF(x_1^{d1}) = \frac{1 + hs_2 - gx_1^{d1} - (w_{2nd})}{2} \tag{24}$$

Note now that, in Fig.3, the candidate non-discriminatory equilibrium is depicted where the reaction functions [(25) below] intersect.

$$x_{ind} \equiv RF(x_{jnd}) = \frac{1 + hs_i - gx_{jnd} - (w_{ind})}{2} \;; i \neq j = 1,2 \tag{25}$$

Then consider a unilateral deviation to wage discrimination on the part of union 1. In such an event, and since $w_R < 1 \Rightarrow w_R(1+d) < 2$, so long as $h > 0$ (22) takes a negative value. In Fig.3 that is depicted by $RF(x_{2nd})$ [$RF(x_{1nd})$] shifting to $RF^{d1}(x_{2nd})$ [$RF(x_1^{d1})$], implying a negative *business stealing effect* (*bse*) to firm's 1's production and profits arising from firm-specific wage discrimination. At the same time, however, (21) also takes a negative value, similarly implying a positive *unit cost effect* (*uce*) to firm's 1's production and profits. In Fig.3, the latter effect is depicted by $RF^{d1}(x_{2nd})$ shifting rightwards so as to counter (only a) part of the loss in firm's 1's employment/production and profits due to the *bse*; thus firm's profits shift to Π_1^{d1}, instead to Π_1^{d1-} where only the *bse* is considered.

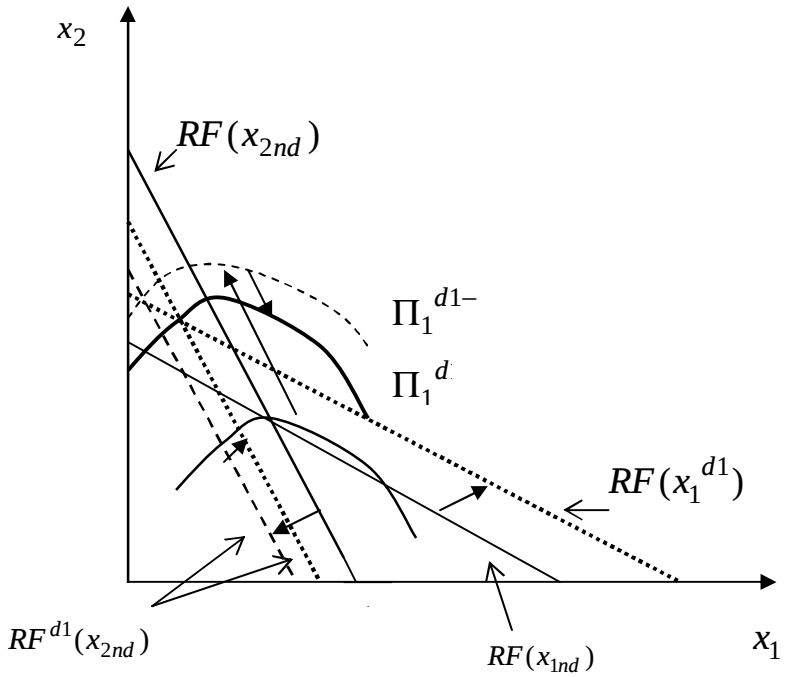
Apart from those effects of wage discrimination, two direct costs also contribute in (20) and are thus embedded in the emerging isoprofit locuses. The first is suggested by (5) and it is essentially a fixed cost to the firm whenever the firm's

union discriminates wages; the firm would then adjust $N_{01}(=x_{01}) < N_{d1}(=x_{d1})$ according to (8)-(9), given (15)-(16). The second arises from (3) as a *csr*-advertisement cost incurred to the firm whenever its union delivers a non-discriminatory wage contract; hence, on the contrary, it would be zero under wage discrimination. What nonetheless drives the non-discriminatory *Nash* equilibrium is that a non-profitable deviation to firm-specific discrimination in wages, like the one illustrated in Fig.3, would also be incompatible with the union's best interest if h is (as lemma 1 suggests) sufficiently high. The reasoning is as follows.

First of all note that, if $h = 0$, then firm-specific discrimination in wages ensues [as (21) and (22) suggest] no employment effect to the union's total rents. At the same time the union, driven by its utilitarian objective, would through wage discrimination internalize the effect of the exogenous factor d (which *ex ante* differentiates reservation wages) so that the remuneration of each one of its members to equally contribute to the union's total rents in the equilibrium. To grasp the latter adjustment, note that if $w_{0i} = w_{di}$ then the rent of an N_{di}-employee/union member would from the union's point of view considered to be higher than the rent of an N_{0i}-employee/union member, by as much as $(1-d)w_R$; hence, each union would opt for a discriminatory wage contract : $w_{0i} = w_{di} + \{(1-d)w_R / 2\}$, in order to compensate that difference in group-specific rents in the equilibrium.

If, however, $h > 0$, then the gain in both employment and wages brought by non-discrimination [recall (22) and (21)] can be high enough so that the union would [as lemma 1 suggests] trade off wage discrimination, as above driven, with higher total rents. While, regarding the firm, the ensuing *csr-advertisement* cost and the adverse *uce* would be both compensated by a favorable *bse*. At this point recall (from Fig. 2a and Fig. 2d) that the firm's critical h $(\underline{h}_{\Pi})$ diverges from the union's one $(\underline{h}_{U})$ as the degree of brand differentiation decreases (e.g., as g increases). The reason is that, the higher is g, the stronger would be the adverse *bse* of firm-specific wage discrimination and, as a result, the higher would be the firm's relative to the union's incentive for non-discrimination in wages.

Figure 3: Non-Profitable deviation to Discrimination



In sum, the option of strategic *csr* on the firm's part via non-discrimination in wages may in equilibrium prove to be compatible with both the firm's and union's best interest for the same reason: High enough gain in firm-specific employment/production which is *ceteris paribus* driven by high enough h.

Our findings under the no-policy *status quo* $(g = 0)$ are now seen to establish the following proposition.

Proposition 1

a. *For any given* $0 < \bar{d} < 1$, *and* $(w_R, g, q) \in (0,1]$, *if* $1 > h > \underline{h}_U \geq \underline{h}_\Pi > 0$, *then in the equilibrium both unions* $i \neq j = 1,2$, *independently set non-discriminatory firm-specific contracts* : $w_{0i} = w_{di} = w_{ndi}$; *both firms* $i \neq j = 1,2$, *independently adjust* $s_i = \dfrac{4h(1-w_{ndi})}{(2-g)(2+g)^2 - 4h^2}$ *,so as to optimally advertise non-discrimination in firm-specific wages as an exertion of firm-specific csr.*

b. [13] *Otherwise, i.e., if, for any given* $0 < \bar{d} < 1$, *and* $(w_R, g, q) \in (0,1]$, $1 > \underline{h}_U > h > \underline{h}_\Pi > 0$, *or* $1 > \underline{h}_U \geq \underline{h}_\Pi > h > 0$, *then in the equilibrium both unions* $i \neq j = 1,2$, *independently set discriminatory firm-specific contracts* : $w_{0i} = w_{di} + \dfrac{(1-d)w_R}{2}$; *both firms* $i \neq j = 1,2$, *independently set* $s_i = 0$.

7.4 Antidiscrimination Policy

Let now consider the policy maker's role at stage one. Under the light of foregoing analysis and as regards the policy maker's first order criterion (e.g., to combat wage discrimination), economic intuition suggests that non-discrimination in wages must be somehow subsidized whenever unions do not have sufficient incentives to opt for it; that is, as Proposition 1b suggests, whenever $\underline{h}_U > h > \underline{h}_\Pi$ or $\underline{h}_U \geq \underline{h}_\Pi > h$.

In any of the latter instances, the reason why the union does not find a non-discriminatory wage contract to its best interest is that the ensuing gain in total rents, in terms of both higher wage(s) and employment, is not high enough to compensate

[13] The proof for the second part (b) of Proposition 1 is analogous to the proof of the first part (a) in the previous pages.

the union for the distortion brought in its utilitarian objective. This is in turn due to insufficient *csr*-advertisement on the firm's part, the reason for the latter being that the *csr*-advertisement costs are unprofitably high relative to the gain expected from a higher market share.

Therefore, a simple policy instrument for the policy maker to fight wage discrimination is to announce at stage one (and undertake at stage three) firm-specific *csr*-advertisement whenever, and only if, the firm-specific wage contract (at stage two) is non-discriminatory. That is, $s_i = s > 0,$ with $g \neq 0;\ C_i^A = 0.$ Under these premises let assume that the candidate equilibrium is non-discrimination in firm-specific wages, i.e. $w_{0i} = w_{di} \equiv w_{ndis}; i \neq j = 1,2.$ Repeating our backwards induction algorithm, the group-specific employment/output rules derived at stage four are,

$$x_{0is} = x_{dis} = [(2-g)(1+hs) - 2w_{ndis} + gw_{ndjs}]/[2(4-g^2)] \tag{26}$$

Whilst, the non-discriminatory wage contracts(s) derived at stage two are,

$$w_{ndis} = \frac{(2-g)(1+hs)+(1+d)w_R}{4-g} \tag{27}$$

Consider now a unilateral deviation (d2) to wage discrimination, on the part of union 2, at stage two.[14] The following outcomes would then arise in the continuation of the game.

$$x_{01s} = x_{d1s} = [\{(2-g)+2hs\} - 2w_{nd1s} + g\{(w_{02s} + w_{d2s})/2\}]/[2(4-g^2)] \tag{28.1}$$

$$x_{d2s}{}^{d2} = [8(1-w_{d2s}\} - 2g\{2(hs+1) - 2w_{1nds}\} + g^2(w_{02s} - w_{d2s})]/[8(4-g^2)] \tag{28.2a}$$

[14]Moreover, to avoid (also) checking for a unilateral deviation on the part of union $j \neq i$, in assuring the *Nash* equilibrium, we here address the case $q_1 \equiv q > 1 > q_2 \equiv 1.$

$$x_{02s}{}^{d2} = [8(1 - w_{02s}\} - 2g\{2(hs + 1) - 2w_{1nds}\} - g^2(w_{02s} - w_{d2s})]/[8(4 - g^2)]$$

(28.2b)

$$w_{nd1s}{}^{d2} = \frac{\{(1 + hs)[8 + g(g + 2)]\} + \{(4 - g)(1 + d)w_R\}}{16 - g^2} \quad (29)$$

$$w_{02s} = \frac{\{4[8 - g[(g + 2hs) + 2]\} + \{(4 + g)[8 - g(1 - d)]w_R\}}{4(16 - g^2)} \quad (30)$$

$$w_{d2s} = w_{02s} - \frac{(1 - d)w_R}{2} \quad (31)$$

$$Dunit\ \cos t_{21s}{}^{d2} \equiv \{[(w_{02s} + w_{d2s})/2] - w_{1nds}{}^{d2}\} = -\frac{(2 + g)hs}{(4 + g)} \quad (32)$$

$$Dx_{12s}{}^{d2} \equiv [x_{1s}{}^{d2} - x_{2s}{}^{d2}] = \frac{2hs}{(2 - g)(4 + g)} \quad (33)$$

Hence, the following critical differentials subsequently arise.

$$U_{d2s}(w_{02s}, w_{d2s}; w_{nd1s}) - U_{nd12s}(w_{nd1s}; w_{nd2s}) =$$

$$-\frac{2hs(8 - g^2)\{(2 - g)(4 + g)[2 - (1 + d)w_R] + [8 - g(4 + g)]hs\}}{[(16 - g^2)]^2(4 - g^2)} + \frac{(1 - d)^2 w_R{}^2}{32} \quad (34)$$

$$\Pi_{d2s}(w_{02s}, w_{d2s}; w_{nd1s}) - \Pi_{nd12s}(w_{nd1s}; w_{nd2s}) =$$

$$-\frac{4hs(8-g^2)\{(2-g)(4+g)[2-(1+d)w_R]+[8-g(4+g)]hs\}}{[64-g^2(20-g^2)]^2}+\frac{(1-d)^2 w_R{}^2}{64} \tag{35}$$

For $w_R = 0.1$, and $g = 1$, the $0 < s_r < 1$ roots of (34) $= 0$ and (35) $= 0$ respectively are,

$$s_{rU_2} = \frac{[(5\sqrt{7})\sqrt{405.1 - d(44.2 - 1.9d)}] - 140(1.9 - 0.1d)}{168\,h} \tag{36}$$

$$s_{r\Pi_2} = \frac{[(0.1)\sqrt{234.4 - d(25.3 - d)}] - (1.6 - 0.1d)}{h} \tag{37}$$

It can be then readily checked that $s_{rU_2} > s_{r\Pi_2}$ for $0 < h < 1;\ 0 < d < 1.$ It further proves that $s_{rU_2} > s_{r\Pi_2}$ for all $(w_R, h, g, d) \in (0,1)$.[15] Hence, so long as $s = s_{rU_2} \equiv s_{rU}$ is announced at stage one, union 2 would effectively be deterred to deviate to a discriminatory wage scheme at stage two; therefore, the non-discriminatory wage scheme can assured to be the sub-game perfect *Nash* equilibrium.

As in turn regards the policy maker's second order criterion (e.g., $\max G(g)$) the following differentials are seen to arise under the suggested antidiscrimination policy.

[15] The $-(w_R, h, g, d) \in (0,1) - s_{rU_2}; s_{r\Pi_2}$ formulae are available upon request.

$$D[CS] \equiv \{[(1+g)/4][\sum_{i=1}^{2} x_i(w_{nd1s}, w_{nd2s})^2 - \sum_{i=1}^{2} x_i(w_{01}, w_{d1}, w_{02}, w_{d2})^2]\} =$$

$$\frac{[2(1+hs)-(1+d)w_R]^2 - [2-(1+d)w_R]^2}{(4-g)^2(2+g)^2} \tag{38}$$

$$D[U] \equiv \{\sum_{i=1}^{2} U_i(w_{nd1s}, w_{nd2s}) - \sum_{i=1}^{2} U_i(w_{01}, w_{d1}, w_{02}, w_{d2})\} =$$

$$\frac{4hs(2-g)[(2+hs)-(1+d)w_R]}{(4-g)^2(2+g)} - \frac{(1-d)^2(1+q)w_R^2}{32q} \tag{39}$$

$$D[PS] \equiv \{\sum_{i=1}^{2} \Pi_i(w_{nd1s}, w_{nd2s}) - \sum_{i=1}^{2} \Pi_i(w_{01}, w_{d1}, w_{02}, w_{d2})\} =$$

$$\frac{8hs[(2+hs)-(1+d)w_R]}{(4-g)^2(2+g)^2} - \frac{(1-d)^2(1+q)w_R^2}{64q} \tag{40}$$

Henceforth, and considering that, under the suggested antidiscrimination policy,

$G(g) = \{D[CS] + D[PS] + D[U] - [2(\frac{1}{2}s^2) = s^2]\} \equiv G(g)_S$, it easily proves that the optimal $s(\equiv s_{\max})$ is given by (41) below.

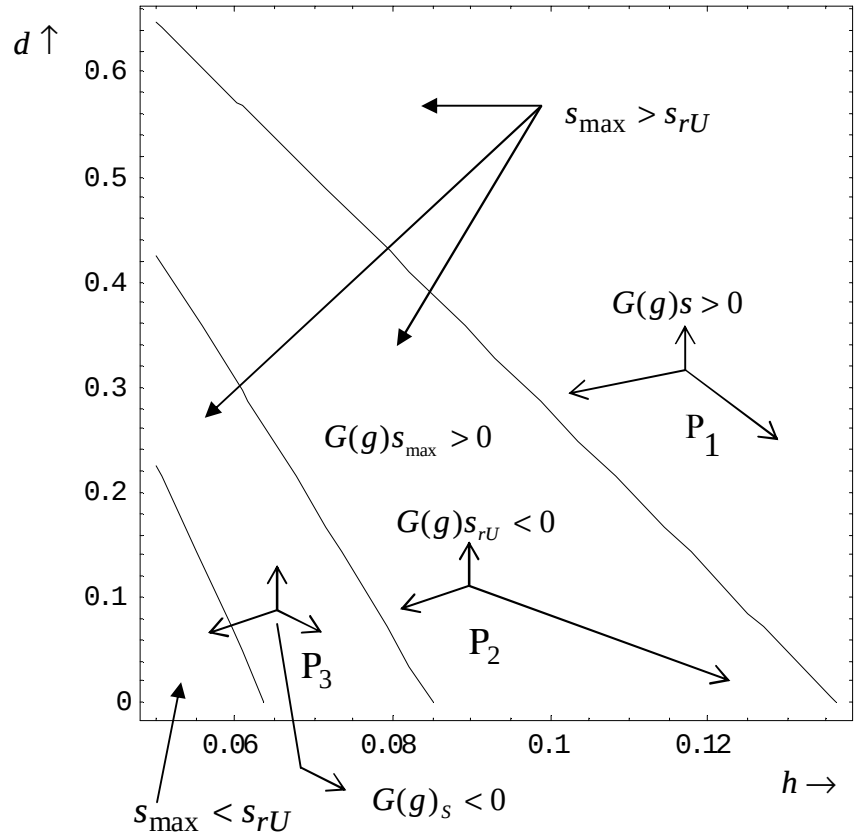
$$s_{\max} = \frac{2h[2-(1+d)w_R][7+(1-g)g]}{(2+g)^2(4-g)^2 - 4[7+(1-g)g]h^2} \tag{41}$$

It can be now readily checked that,

$$s_{\max}\left|w_R = 0.1; g = 1\right| = \frac{14[1.9 - 0.1d]h}{81 - 28h^2} \tag{42}$$

Hence, it by simple comparison proves that $s_{\max}\left|w_R = 0.1; g = 1\right| > s_{rU}$, for $0 < h < 1;\ 0 < d < 1.$

Figure 4



Yet, if $0 < g < 1$, it turns out that $s_{\max} < s_{rU}$ for sufficiently low $[h, d]$ values, suggesting that, for such parameter configurations, $s_{\max}$ is non-binding and thus violates the *sufficiency* property of policy maker's first order criterion. For

tractability, let $w_R = 0.1; g = 0.5$, and consider the symmetric firms case (e.g. $q_1 \equiv q = q_2 \equiv 1$). Then, as illustrated in Fig. 4, the $[h, d] \in [0,1]$ space is twice partitioned into regions,

$P1: G(g)s_{\max} > 0; G(g)s_{rU} > 0; \quad s_{\max} > s_{rU}$, $P2: G(g)s_{\max} > 0; G(g)s_{rU} < 0; \quad s_{\max} > s_{rU}$,

$P3: G(g)s_{\max} < 0; G(g)s_{rU} < 0; s_{\max} > (<) s_{rU}$.

These partitions along with lemma 1 subsequently establish lemma 2.

Lemma 2

For any given $0 < d < 1$, *and* $(w_R, g, q) \in (0,1]$,

a. There exist $\bar{h}_U > \underline{h}_U (\geq \underline{h}_\Pi)$; $\bar{h}_U (d)' < 0; \underline{h}_U (d)' < 0; \underline{h}_\Pi (d)' < 0$ *:*

(i) $G(g)s_{\max} > 0; G(g)s_{rU} > 0; s_{\max} > s_{rU}$, *if* $h > \bar{h}_U$.

(ii) $G(g)s_{\max} > 0; G(g)s_{rU} < 0; s_{\max} > s_{rU}$, *if* $\bar{h}_U > h > \underline{h}_U$.

(iii) $G(g)s_{\max} < 0; G(g)s_{rU} < 0; s_{\max} > s_{rU}$, *if* $\underline{h}_U > h$.

For instance, if $\bar{d} \cong 0$, *and* $w_R = 0.1; g = 0.5; q = 1$, *then* $\bar{h}_U \cong 0.14; \underline{h}_U = 0.085$.

b. There exist $0 < \underline{\underline{h}} < \underline{h}_\Pi \leq \underline{h}_U$; $\underline{\underline{h}}(d)' < 0; \underline{h}_U (d)' < 0; \underline{h}_\Pi (d)' < 0$*:*

$G(g)s_{\max} < 0; G(g)s_{rU} < 0; s_{\max} < s_{rU}$, *if* $h < \underline{\underline{h}}$.

For instance, if $\bar{d} \cong 0$, *and* $w_R = 0.1; g = 0.5; q = 1$, *then* $\underline{\underline{h}} = 0.065$.

Our findings regarding antidiscrimination policy can be now summarized in the following proposition.

Proposition 2

For any given $0 < d < 1$, *and* $(w_R, g, q) \in (0,1]$,

a. *If* $h > \bar{h}_U$, *or if* $\bar{h}_U > h > \underline{h}_U$, *then the policy maker, driven by the necessity property of the first order criterion of its lexicographic objective, does not activate any policy instrument (e.g.,* $g = 0$*). Yet, under the no-policy status quo, non-discriminatory wage contracts emerge in the equilibrium.*

b. *If* $\underline{h}_U > h > \underline{\underline{h}}$, *or if* $h < \underline{\underline{h}}$, *then, to combat the emerging wage discrimination, the policy maker announces at stage one (and undertakes at stage three) firm-specific csr-advertisement, in the event of firm-specific non-discrimination in wages (at stage two). For that, the chosen level of firm-specific csr-advertisement is* $s_{\max} (> s_{rU})$ *in the first instance, while it is* $s_{rU} (> s_{\max})$ *in the second instance. In both instances, however, a net loss in social welfare arises in the - policy driven- non-discriminatory equilibrium. Respectively,* $G(g)s_{\max} < 0, G(g)s_{rU} < 0$. *Yet, the net social welfare loss is lower (higher) if* $\underline{h}_U > h > \underline{\underline{h}}$ *(*$h < \underline{\underline{h}}$*).*

7.5 Conclusions

Under quite regular assumptions regarding union preferences, and in accordance with the stylized facts across Europe, we propose that powerful (monopoly) unions may opt for discriminatory wage contracts across groups of employees. At the same time we nonetheless argue that firms may strategically opt for non-discrimination in firm-specific wages insofar as they would profitably advertise it as an exertion of corporate social responsibility (*csr*).

Our findings suggest that, if the consumers' valuation of non-discrimination is sufficiently high, then the firms' *csr*/non-discrimination strategies would as well be

compatible with the unions' best interest in the equilibrium. If not, we propose that in order to combat wage discrimination a benevolent policy maker may find sufficient to announce and, instead of firms undertake, *csr*-advertisement in the event of non discrimination. It proves however that such a policy always entails a net loss in social welfare, interestingly, yet intuitively, suggesting that, so long as the consumer-driven social valuation of non-discrimination is low enough, equality in pay across equally productive individuals is an inefficient arrangement.

Our analysis, though stylized, remains robust along a number of dimensions. First, our propositions would be qualitatively sustained either we allow, or ignore, for technological asymmetries across firms. Second, similar results would emerge whether firms adjust their quantities or their prices in the product market. Third, depending on the relative weights assigned to the partial welfare of each group of workers, unions may still opt for wage discrimination even if we allow for a more "egalitarian" union objective function. On this issue nonetheless it seems more promising to consider firm-union bargaining about wages and/or employment, with the union's bargaining power in any instance being less than one.

On the other hand, three factual elements challenge the validity of our present suggestions. We have assumed that, first, equally skilled workers can be grouped according to different reservation wages. Second, unions effectively embody all kinds (groups) of equally skilled workers. Third, firm-union bargaining is decentralized at the firm level. Nonetheless, there is adequate evidence that those elements are often met in the European labour markets: Apart from the *open shop* scheme, firm-specific collective agreements are taking place in many European labour markets. While, given the European migrant experience over the last decades, it is rather unlikely reservation wages to be uniform, even across equally-skilled workers.

Moreover, we have implicitly assumed that monitoring discrimination (versus *csr*) is perfect and costless. Yet, it is easy to grasp that our proposed antidiscrimination policy is still valid if policy makers (effectively the society) are (also) willing to undertake the costs needed to ensure such monitoring.

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Conclusion

In the current thesis we have shown that the European Union Member States have, on political and legal levels, committed themselves to equal treatment and the fighting of labour market discrimination. Protection from unequal treatment however was significantly strengthened throughout the European Union by virtue of the adoption and national implementation of two European Union directives, namely the Racial Equality Directives (2000/43/EC) and the Employment Equality Directive (2000/78/EC). A significant property of the two Directives is that they do not just focus on individual prejudice and its consequences, but on institutional and societal patterns and practices. Group outcomes are emphasized, both in order to diagnose discrimination, and to discover whether remedial measures have been effective. This in turn makes it important to have access to collective empirical data and to be in a position to utilize such data, and to recommend relevant economic policy in a way which is relevant for theses purpose.

The current thesis is an action taken in the wake of the adoption and national implementation of the two European Directives (2005/3304). The objectives of this thesis are twofold. On the one hand, to provide empirical evidences regarding discriminatory trends in the Greek private labour market based on ethnicity and sexual orientation. On the other hand, to evaluate theoretical how discrimination can be efficiently solved through social planners interventions influenced by the two European Directives.

To be precise, the aim of this thesis is to examine ethnic and sexual orientation minorities' performance in the Greek labour market by examining their occupational access and wage rates two/three years after the national adoption of the two European Directives (3304/2005) by employing a robust experimental approach (correspondence test). Moreover, to evaluate (modeling) wage discrimination against minorities, implemented by unions and firms, and to develop positive actions in order to combat discrimination by assessing the effectiveness of the European legislation. As it comes, the main contribution of this thesis is that the first objective has not ever been examined for Greece by employing an experimental approach. Whilst, the second objective is that wage discrimination against minorities has not ever been evaluated by utilizing industrial organization framework and unions utility functions (union-oligopoly-decentralized-bargaining) under the influence of the European

antidiscrimination legislation. Last but not least, the present theoretical based evaluation is the first attempt to assessing the effectiveness of the European Directives.

In the contemporary Greece, social and legal proscriptions against discrimination are strong, placing pressure on potential discriminators to conceal their motives. Employers who retain strong preferences for members of particular group face clear incentives to mask their discriminatory actions. It could be the case, then, that discrimination remains fairly routine in certain contexts, despite infrequent exposure. The empirical studies of the current thesis have taken account of two particular drivers influencing recent governmental outlooks on ethnicity and sexual orientation. The first is the increased recognition of diversity, and the second the continuing wish to achieve good practice on equality. The findings do suggest the need to examine more closely the effects of ethnic and sexual orientation minorities and local labour market characteristics on employments for minority populations in Greece.

In the first study, by employing the correspondence test we investigated whether ethnic minorities, particularly Albanians, were still facing discriminatory practices in the Greek labour market. The experiment was conducted between May 2006 and January 2007 and involved the major city of Greece, Athens. The estimations show that Albanians were faced a marginal probability to be invited for an interview that is by 0.214 less than that of Greeks. Moreover, this probability varies across occupations: In office jobs the Albanian applicants were faced 0.375 less probability to be invited for interview, 0.257 in shop sales, 0.161 in industries, and 0.124 in restaurants and café services. Therefore, on the part of employers taste and/or statistical discrimination is implied against the Albanian. Turning next to monthly wage offers, the estimations show that Albanians were faced an "ethnic penalty" of 73.6€, producing a wage discrimination factor of d=0.11. The higher penalty is found in office jobs of 95.9€, d=0.131, followed by industries of 74.7€, d=0.110, shop sales of 57.8€, d=0.092, and restaurant and café services of 29.9€, d=0.050. Last, but not least, focusing on the insurance coverage issue Albanians are thereby found to face a marginal probability of receiving insurance coverage which is by 0.239 lower than that of Greeks. Particularly, in restaurant and café services Albanians are found to face a 0.293 such difference, followed by 0.273 in office jobs, 0.228 in industries, and 0.188 in shop sales.

Similarly, in the second study, we empirically investigated whether sexual orientation minorities, were facing discriminatory practices in the Greek labour market. The field experiment was conducted between December 2006 to September 2007 in Athens. We show that gay applicants were faced a marginal probability to be invited for an interview that is by 0.261 less than that of the straight applicants on average. The result suggests that gay applicants are discriminated when actual employers make hiring decisions. Though, heterogeneity amongst sectors, the probability varies across them: In office jobs gay men were faced 0.304 less probability to be invited for interview, followed by 0.289 in shop sales, 0.248 in industries, and 0.211 in restaurants and café services. It seems that gay men relative to straight men have to spend more time, effort, and resources, for an interview, as the same observable signal is more precise for straights than gays. Turning next to monthly wage offers the estimations entail that the gay-labeled applicants were faced a monthly ″sexual orientation penalty″ of 18.3€, producing a wage discrimination factor d=0.026. Separately in each sector we found similarly insignificant small effects. The higher penalty is found in shop sales of 14.9€, d=0.023, followed by office jobs of 8.7€, d=0.011, restaurant and café services of 6.0€, d=0.009, and industries of 2.9€, d=0.003. Next, we shown that the estimated probability of gay applicants to receive an invitation for interview was by 0.350 lower (higher) if the employers' were males (females), on average. Moreover, males were found to practice sexual orientation penalties of 22.1€ [0.03] against gay applicants, while females provide them with a wage premium of 4.5€ [0.000] on average. Consistent with empirical evidences we found that males discriminate more than females.

In the third study, we introduced the first union based theoretical contributions. We argued that if, in the absence of an active antidiscrimination policy, unions are powerful enough (monopoly union) over the wage bargain then firm-specific discriminatory wage contracts will emerge in firm/union pair in the equilibrium. On the other hand, to combat wage discrimination, a benevolent policy maker, operating under a balanced budget, may alternatively: Announce a tax, in the form of a wage penalty per unit of discriminatory employment, which will be imposed to firms, whenever they apply the discriminatory wage scheme. Issue to firms a subsidy, per unit of discriminatory employment, whatever is their firm-specific wage configuration. Both policies result to non-discriminatory wage rates in

the equilibrium. However, if the upper bound of the reservation wage is sufficiently low the latter policy is superior to the former on efficiency grounds. Hence, our analysis further implies that the European Union antidiscrimination directives may in fact prove to be effective, on both egalitarian and efficiency grounds, insofar as they are escorted by a financial assistance scheme to policy makers covering at least a part of the total subsidization costs, including the sunk ones of setting up the monitoring system.

In the final study, we introduced the second union based theoretical contributions. In a context of union-oligopoly decentralized bargaining we propose that wage discrimination among equally-skilled workers may endogenously emerge as long as workers can be *ex ante* grouped according to their reservation wages (see, Chapter six). On the other hand nonetheless consumers may ceteris paribus attach higher valuation to the product of a firm which exerts *csr* by not discriminating in pay against anyone of its employees; of course, so long as they are informed about that. Hence, though wage discrimination seems to be the unions' optimal choice whenever consumers are ignorant and/or they do not care about non-discrimination in wages, firms may independently achieve higher profits by strategically opting for non-discrimination in wages and advertising it as an exertion of *csr*. If, by doing so, they can vertically differentiate their product enough to compensate for both the *csr*-advertisement costs and the higher unit costs of production which non-discrimination relative to discrimination entails. Such an option of strategic *csr* on the part of firms may in turn prove to be compatible with the unions' best interest, as well, if the consumers' valuation of non-discrimination is sufficiently high. If not, we subsequently propose that in order to deter wage discrimination a policy maker should instead of firms undertake *csr*-advertisement in the event of non-discrimination in wages. Yet, such an antidiscrimination policy would always entail a net loss in social welfare.

It has become common wisdom that modern forms of discrimination are often subtle and covert, which means that they are also less easy to prove. Empirical data can have a key role in recognizing the need for, and planning of, positive action measures. More importantly, empirical evidences can be used as evidence for the purpose of proving the existence or absence of discrimination in individual cases, the analysis of the causes, extent and effects of discrimination in the society in general,

and showing the composition of the workforce to reveal possible under-representation that may be due to discrimination. On the other hand, economic policy based on the initiation of the two European Directives is need to be taken to promote equality of treatment as denial of equal opportunities comes at a high price for those concerned and the society at large. Antidiscrimination strategies can serve as a compelling, factual baseline for national discussion on equality and discrimination. Effective economic policies are needed to guide and support development and implementation.