University of the Aegean – Department of Geography

PhD Dissertation

Labour in changing urban landscapes:

A multi-scalar analysis of the reciprocal links between gentrification and the growth of flexible and precarious labour in Athens, Greece

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A Dissertation submitted to the Department of Geography, University of the Aegean in fulfillment of the requirements for the degree of Doctor of Geography

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Πανεπιστήμιο Αιγαίου – Τμήμα Γεωγραφίας

Διδακτορική Διατριβή

Η εργασία σε αστικά τοπία υπό αναδιάρθρωση:

Μια ανάλυση σε πολλαπλές κλίμακες των αμοιβαίων αλληλεπιδράσεων μεταξύ εξευγενισμού και αυξανόμενης ευέλικτης και επισφαλούς εργασίας στην Αθήνα

Κωνσταντίνος Γουρζής

Διατριβή υποβληθείσα στο Τμήμα Γεωγραφίας του Πανεπιστημίου Αιγαίου
προς εκπλήρωση των υποχρεώσεων για τον Διδακτορικό Τίτλο στη Γεωγφραφία

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Εκτενής περίληψη στα Ελληνικά

Κατά τις τελευταίες δεκαετίες, οι πόλεις κυρίως της Δύσης υφίστανται δύο κρίσιμους μετασχηματισμούς οι οποίοι επηρεάζουν την οικονομική τους ζωή και τη γεωγραφική τους δομή: τον εξευγενισμό του αστικού ιστού τους και την ευελικτοποίηση των αγορών εργασίας τους. Αφενός, ο εξευγενισμός αποτελεί ερευνητική έννοια η οποία εισήχθη στη βιβλιογραφία κατά τη δεκαετία του 1960, προκειμένου να περιγράψει την εισροή μεσαίων και ανώτερων στρωμάτων σε μέχρι τότε αμιγώς εργατικές γειτονιές στην πόλη του Λονδίνου. Αφετέρου, η εργασιακή ευελιξία εδραιώθηκε ως ερευνητική έννοια μετά την Πετρελαϊκή Κρίση της δεκαετίας του 1970, προκειμένου να αποδώσει τις «κοσμογονικές» αλλαγές τις οποίες επέφερε στον κόσμο της εργασίας και την οργάνωση της παραγωγής. Οι αγορές εργασίας του δυτικού κόσμου άρχισαν να δείχνουν σημάδια μιας εντεινόμενης ευελικτοποίησης, η οποία μέσα σε ένα πλαίσιο γενικευμένης απορρύθμισης της εργασίας, οδήγησε εκτενή τμήματα του εργατικού δυναμικού στην επισφάλεια.

Η παρούσα διατριβή ακολουθεί το πρότυπο του «Διδακτορικού μέσω δημοσιεύσεων» (PhD by Publication), αποτελούμενη από πέντε ήδη δημοσιευμένες εργασίες σε διεθνή επιστημονικά περιοδικά και πρακτικά διεθνών επιστημονικών συνεδρίων, και δύο πρόσθετες εργασίες οι οποίες έχουν υποβληθεί προς κρίση σε διεθνή επιστημονικά περιοδικά και επί της παρούσης βρίσκονται σε διαδικασία διορθώσεων. Σε επίπεδο αντικειμένου, η Διατριβή επιδιώκει να προσεγγίσει την ευρύτερη συζήτηση περί εξευγενισμού εστιάζοντας στην σχέση του φαινομένου αυτού με την ευελικτοποίηση και επισφαλειοποίηση των αστικών αγορών εργασίας στη σύγχρονη πόλη. Στόχος είναι να εξεταστεί αυτή η αλληλοτροφοδοτούμενη σχέση με αναλυτικό τρόπο, και πιο συγκεκριμένα, προτείνοντας μια εκτενή ταξινόμηση των διαφόρων τύπων συσχετίσεων. Σε επίπεδο εννοιολογικής προσέγγισης, η παρούσα έρευνα αντιλαμβάνεται τον εξευγενισμό ως μια χωρική παγίωση (spatial fix) και την εργασιακή ευελικτοποίηση/επισφαλειοποίηση ως οργανωτική παγίωση (organizational fix), αμφότερες προκρινόμενες στο σύγχρονο πλαίσιο ως λύσεις σε προβλήματα υπερσυσσώρευσης κεφαλαίου. Όπως διαφαίνεται και από την εννοιολογική προσέγγιση, οι θεωρητικές καταβολές της παρούσας διατριβής προέρχονται από την πλούσια παράδοση της Κριτικής Γεωγραφίας και της Γεωγραφικής Πολιτικής Οικονομίας (βλ. Harvey). Σχετικά με τη μελέτη του εξευγενισμού, η Διατριβή εκπορεύεται από τις προσεγγίσεις της «προσφοράς του φαινομένου» (supply side) οι οποίες τονίζουν τη σημασία της παραγωγής του εξευγενιζόμενου αστικού χώρου, στον αντίποδα της κατανάλωσής του, στην οποία εστιάζουν οι προσεγγίσεις της ζήτησης (demand side). Προκειμένου να πλαισιωθεί η προαναφερθείσα έρευνα, η Διατριβή ακολουθεί τις αρχές του Κριτικού Ρεαλισμού, η οποία υποστηρίζει την προΰπαρξη των κοινωνικών δομών, την υλική βάση της γνώσης, και την κομβική σημασία της ανθρώπινης εμπρόθετης δράσης (human agency). Ως απώτερο στόχο, η Διατριβή θέτει τη συμβολή στις αναλύσεις περί των μοτίβων μετασχηματισμού του αστικού χώρου στις σύγχρονες πόλεις, προτείνοντας μια καινοτόμα Εργασιακή Θεώρηση του Εξευγενισμού, η οποία εστιάζει στο γεωγραφικό πλαίσιο της Νοτίου Ευρωπαϊκής Ένωσης. Βάσει των ανωτέρω, τα Ερευνητικά Ερωτήματα διατυπώνονται ως εξής:

α. Με ποιον τρόπο αλληλοσυνδέονται αστικός εξευγενισμός και εργασιακή ευελιξία; Επηρεάζει συγκεκριμένα ο εξευγενισμός τις αστικές αγορές εργασίας, και εάν ναι, πώς αντικατοπτρίζεται αυτό στην ευέλικτη και επισφαλή απασχόληση; Αντιστρόφως, διευκολύνει η απορρύθμιση των ενδοαστικών εργασιακών σχέσεων την εξάπλωση των εξευγενιστικών τάσεων;

β. Πέρα από την προφανή επίδραση των οικονομικών κρίσεων στην υποτίμηση της εργασίας, ποιος είναι ο αντίκτυπος των υφεσιακών πιέσεων στη σχέση μεταξύ εξευγενισμού και ευέλικτης ή επισφαλούς εργασίας; Η ύφεση ενθαρρύνει ή παρεμποδίζει την αμφίδρομη συσχέτιση των δύο αυτών διεργασιών;

γ. Υπάρχει συσχέτιση μεταξύ των τάσεων που παρατηρούνται στο ενδοαστικό επίπεδο και εκείνων που λαμβάνουν χώρα σε ευρύτερες κλίμακες, όπως η περιφερειακή ή η εθνική; Ποιος είναι ο αντίκτυπος των κοινωνικο-χωρικών τάσεων της περιφερειακής κλίμακας στις διεργασίες εξευγενισμού και επισφαλειοποίησης της εργασίας εντός της πόλης;

Τα ανωτέρω ερευνητικά ερωτήματα έρχονται να καλύψουν ένα σημαντικό κενό της διεθνούς βιβλιογραφίας, καθώς μέχρι σήμερα, η αμφίδρομη σύνδεση μεταξύ εξευγενισμού και ευέλικτης εργασίας δεν έχει αποτελέσει αντικείμενο συστηματικής και ενδελεχούς έρευνας. Ο συνήθης τρόπος με τον οποίον οι Θεωρίες του Εξευγενισμού προσεγγίζουν το ζήτημα της εργασίας είναι μέσω των «νέων μεσαίων τάξεων» ως πρωταρχικών καταναλωτών εξευγενισμού (εξευγενιστών/gentrifiers), οι οποίες υπόκεινται ένα ρευστό πλαίσιο εργασιακών σχέσεων μέσα στην «μεταβιομηχανική» πόλη. Ωστόσο, τέτοιου είδους προσεγγίσεις απλώς αναγνωρίζουν έναν αναδυόμενο τρόπο οργάνωσης της εργασίας στη σύγχρονη πόλη, χωρίς να προχωρούν στη συγκριτική μελέτη και συσχέτιση της αναμόρφωσης του αστικού χώρου και των αστικών αγορών εργασίας. Παραδόξως, μια τέτοια συσχέτιση αποτελεί καίριο στοιχείο των αρχικών προσεγγίσεων στις Θεωρίες Εξευγενισμού, κυρίως από την πλευρά της Κριτικής Γεωγραφίας. Ωστόσο, οι μεταγενέστερες συνεισφορές στη βιβλιογραφία δεν εμπλούτισαν αυτή την πτυχή της μελέτης του εξευγενισμού, με αποτέλεσμα σταδιακά η έννοια της εργασίας να παραγκωνιστεί, πλην ελαχίστων εξαιρέσεων. Επιπροσθέτως, η παρούσα Διατριβή έρχεται να συνεισφέρει και στην σχετικά ισχνή εγχώρια βιβλιογραφία περί εξευγενισμού στον ελληνικό αστικό χώρο.

Προκειμένου να απαντήσει στα Ερευνητικά Ερωτήματα, και να καλύψει τα κενά της διεθνούς και εγχώριας βιβλιογραφίας, η παρούσα έρευνα καταφεύγει σε έναν συνδυασμό ποικίλων αναλυτικών τεχνικών και μεθόδων, οι οποίες επεξεργάζονται τόσο ποσοτικά όσο και ποιοτικά δεδομένα, τα οποία προέρχονται από δευτερογενείς πηγές και από πρωτογενή έρευνα πεδίου. Ως εκ τούτου, η Διατριβή αυτή παρουσιάζει μια **θεωρητικά-πληροφορημένη εμπειρική έρευνα μεικτών μεθόδων**, η οποία εφαρμόζει το εννοιολογικό και μεθοδολογικό πλαίσιο μέσω μιας ανάλυσης πολλαπλών βημάτων. Συνοπτικά, η εμπειρική ανάλυση χρησιμοποιεί δευτερογενή ποσοτικά δεδομένα πάνω σε μεγέθη απασχόλησης (συνολική, μερική/πλήρης, μερική/πλήρης μισθωτή, μη-ηθελημένη μερική) και ανεργίας τα οποία επεξεργάζεται μέσω του δείκτη Χωρικής Συγκέντρωσης (location quotient) και της μεθόδου Shift-share Analysis, ακαθάριστων σχηματισμών παγίων κεφαλαίων ανά τύπο επενδυτικού προϊόντος τους οποίους επεξεργάζεται μέσω ενός καινοτόμου Δείκτη Μεριδίου Κατασκευαστικής Δραστηριότητας (Building Share index), μεγεθών σχετικών με την αγορά βραχυχρόνιων ενοικίων (θέση, τιμή, τύπος ακινήτου) για τα οποία εκπονεί Χωρική Ανάλυση μέσω χαρτογραφικών εργαλείων, και τέλος, μεγεθών σχετικών με την αγορά μακροχρόνιων ενοικίων τα οποία χαρτογραφεί και συσχετίζει στατιστικά (μέσω δεικτών Pearson's r, Spearman's ρ, and Kendall's τ) με τα μεγέθη των βραχυχρόνιων ενοικίων. Τα ευρήματα της έρευνας μέσω ποσοτικών στοιχείων σε ευρύτερες κλίμακες (περιφερειακή, εθνική) ελέγχονται στο πλαίσιο δύο Μελετών Περιπτώσεων που αναφέρονται σε δύο κεντρικές αθηναϊκές γειτονιές: το Κουκάκι και τον Κεραμεικό. Σε αυτό το σημείο, η εμπειρική ανάλυση χρησιμοποιεί πρωτογενή δεδομένα που συλλέχθηκαν μέσω έρευνας πεδίου, η οποία συμπεριέλαβε τα στάδια της συμμετοχικής παρατήρησης, καταγραφής και χαρτογράφησης χρήσεων γης, δομημένων σύντομων ερωτηματολογίων προς τρεις ομάδες (κάτοικοι, εργαζόμενοι, ιδιοκτήτες επιχειρήσεων), ημι-δομημένων συνεντεύξεων με πληροφορητές-κλειδιά, και φωτογραφικής έρευνας.

Η ανωτέρω έρευνα παρουσιάζεται μέσα από τέσσερα κεφάλαια, τα οποία συνεπικουρούνται από ένα κεφάλαιο εννοιολογικού πλαισίου το οποίο προηγείται. Συνοπτικά, η Διατριβή ξεκινά με το εννοιολογικό πλαίσιο, συνεχίζει με τη μελέτη των περιφερειακών αγορών εργασίας στην Ελλάδα σε σχέση με τα κλαδικά τους χαρακτηριστικά και την εξέλιξη των μεγεθών της ευέλικτης απασχόλησης, και ακολούθως εστιάζει στην αγορά εργασίας της Αττικής, συσχετίζοντάς την με τις ροές παγίων κεφαλαίων σε εθνικό επίπεδο. Το αντικείμενο του επόμενου κεφαλαίου αφορά στην αγορά βραχυχρόνιων ενοικίων, με τη μελέτη να εστιάζει γεωγραφικά στο Δήμο Αθηναίων, ενώ την ανάλυση αυτή ακολουθεί το τελευταίο μέρος της εμπειρικής έρευνας, όπου οι δύο γειτονιές που προαναφέρθηκαν (Κουκάκι και Κεραμεικός) μελετώνται ενδελεχώς όσον αφορά τις διεργασίες εξευγενισμού και ευελικτοποίησης των τοπικών αγορών εργασίας τους. Το κυρίως σώμα της Διατριβής κλείνει με ένα Συνθετικό Κεφάλαιο (integrative chapter) στο οποίο τα ευρήματα της έρευνας ανασυνθέτονται, οδηγώντας στη διατύπωση μιας Εργασιακής Θεώρησης του Εξευγενισμού.

Πιο συγκεκριμένα, στο εννοιολογικό πλαίσιο (Κεφάλαιο 2) παρουσιάζεται σχηματικά μια θεωρητικοποίηση του δικτύου των δυνητικών συσχετίσεων μεταξύ εξευγενισμού και εργασιακής ευελικτοποίησης/επισφαλειοποίησης – η θεωρητικοποίηση αυτή συνιστά από μόνη της μια καινοτομία, καθότι ταξινομεί συστηματικά τα επί μέρους χαρακτηριστικά της σχέσης αυτής με έναν τρόπο ο οποίος δεν είχε παρουσιαστεί μέχρι σήμερα στη διεθνή βιβλιογραφία. Σε πρώτο επίπεδο, η σχέση μεταξύ των δύο φαινομένων διαχωρίζεται σε ισχυρούς και ανίσχυρους δεσμούς. Με τον όρο «ανίσχυρος δεσμός», περιγράφεται η ταυτόχρονη εμφάνιση τάσεων εξευγενισμού και ευελικτοποίησης, οι οποίες δεν συμπέφτουν κατ' ανάγκη χωρικά, ωστόσο, σηματοδοτούν το χαρακτήρα αμφότερων ως προϊόντων της εντατικής συσσώρευσης κεφαλαίου. Η έρευνα εστιάζει κυρίως στους «ισχυρούς δεσμούς», οι οποίοι αναφέρονται σε απτές περιπτώσεις όπου ευελικτοποιημένες αστικές αγορές εργασίας αποτελούν κεντρικό παράγοντα για την εμφάνιση εξευγενιστικών πιέσεων, και αντιστρόφως, στις περιπτώσεις όπου εξευγενιστικές τάσεις πυροδοτούν την ευελικτοποίηση των αγορών εργασίας στις περιοχές τις οποίες εμφανίζονται. Οι πρώτες περιπτώσεις, στις οποίες δίνεται το όνομα «υποστηρικτική προς τον εξευγενισμό επισφάλεια» (gentrification-supporting precarity), περιγράφουν (α) τον κεντρικό ρόλο της ευέλικτης, άτυπης, και επισφαλούς απασχόλησης στις κατασκευές που πραγματοποιούνται στο πλαίσιο εξευγενιστικών διεργασιών, και (β) τον έμμεσο ρόλο του εξευγενισμού στην απορρύθμιση των τοπικών αγορών εργασίας μέσω του εκτοπισμού των δευτερογενών δραστηριοτήτων, οι οποίες προσέφεραν επί μακρά περίοδο μια επιλογή πιο σταθερής και τυπικής απασχόλησης στο αστικό εργατικό δυναμικό. Στις δεύτερες περιπτώσεις, στις οποίες δίνεται το όνομα «ενισχυόμενη από τον εξευγενισμό επισφάλεια» (gentrification-fostered precarity), συμπεριλαμβάνονται όλες εκείνες οι απορρυθμισμένες σχέσεις εργασίας που εντοπίζονται στις οικονομικές δραστηριότητες που αναδύονται πλέον στις εξευγενισμένες περιοχές, όπως η υψηλού επιπέδου αναψυχή, εστίαση, και οι βραχυχρόνιες μισθώσεις. Η επισφαλειοποίηση του εργατικού δυναμικού σε αυτές τις περιπτώσεις διαφέρει από αυτήν σε άλλες περιοχές, λόγω των παραγόντων οι οποίοι την προκαλούν: ο έντονος ανταγωνισμός των επιχειρήσεων μέσα σε μικρές δυναμικές περιοχές, και η διάχυση επισφαλών πρακτικών από τους εργοδότες μέσα σε ένα πλαίσιο οικονομιών συγκέντρωσης.

Στο Κεφάλαιο 3, το οποίο ανοίγει το εμπειρικό κομμάτι της Διατριβής, παρουσιάζεται η εξέλιξη των περιφερειακών αγορών εργασίας στην Ελλάδα για δύο διαδοχικές τριετίες: 2005-08 και 2009-12. Η μεν πρώτη αναφέρεται στη δυναμική περίοδο κατά την οποία η ελληνική οικονομία συγκαταλέγονταν ανάμεσα στις πιο δυναμικές διεθνώς, ενώ η δεύτερη αναφέρεται στα πρώτα χρόνια της βαθιάς ύφεσης, τα οποία καθορίστηκαν από τα Προγράμματα Δημοσιονομικής Προσαρμογής (τα επονομαζόμενα «μνημόνια») και την κατάρρευση των περισσοτέρων αγορών εργασίας στη χώρα. Στο κεφάλαιο αυτό αναδεικνύεται η ισχυρή συσχέτιση, κατά τη δεύτερη τριετία, της περιφερειακής αναδιάρθρωσης και των επί μέρους κλαδικών εξειδικεύσεων, με τον βαθμό διείσδυσης της υποαπασχόλησης. Μέσα σε αυτό το πλαίσιο, η διάχυση αυτή υπήρξε γεωγραφικά άνιση, με τελικό αποτέλεσμα ωστόσο να καταστεί η υποαπασχόληση εγγενές στοιχείο των περισσοτέρων αγορών εργασίας στη χώρα. Οι ελληνικές περιφέρειες διαχωρίστηκαν βάσει του παραγωγικού τους προφίλ σε μητροπολιτικές, βιομηχανικές, αγροτικές, και τουριστικές. Η διάχυση της υποαπασχόλησης, αν και φαινομενικά εμφανίστηκε ως οριζόντια, τελικά υπογραμμίστηκε ως αποτέλεσμα περισσότερο των περιφερειακών ανταγωνιστικών πλεονεκτημάτων παρά της τοπικής σύνθεσης των παραγωγικών δραστηριοτήτων. Συγκεκριμένα, οι μητροπολιτικές περιφέρειες (αμφότερες Αττική και Κεντρική Μακεδονία) παρουσιάστηκαν «κατώτερες των περιστάσεων», ούσες εξαιρετικά ευάλωτες στη διείσδυση μιας χαμηλής ποιότητας υποαπασχόλησης, χωρίς αυτή να λειτουργήσει μάλιστα ως ανάχωμα απέναντι στην εκτόξευση των μεγεθών της ανεργίας. Στον αντίποδα, εν μέσω κρίσης, οι νησιωτικές οικονομίες με έμφαση στον τουρισμό, παρά την ανισοβαρή παραγωγική εξειδίκευσή τους, αποδείχθηκε ότι προσαρμόστηκαν πολύ ταχύτερα στο ευμετάβλητο οικονομικό περιβάλλον, χωρίς ωστόσο ούτε αυτές να αποφύγουν μια εκτεταμένη ευελικτοποίηση του εργατικού τους δυναμικού.

Στο κεφάλαιο 4, η ανάλυση επικεντρώνεται στην αγορά εργασίας της Αττικής, λαμβάνοντας υπόψιν τους σχηματισμούς παγίων κεφαλαίων σε εθνικό επίπεδο. Αυτοί αναλύονται για την περίοδο 1995-2016 μέσω ενός δείκτη που αναδεικνύει την ισορροπία των επενδύσεων στο δομημένο περιβάλλον εν συγκρίσει με αυτές στην βιομηχανική παραγωγή. Τα στοιχεία υπογράμμισαν το χαρακτήρα της ελληνικής οικονομίας ως απόλυτα επικεντρωμένης στις κατασκευές, τουλάχιστον από το 1995 μέχρι και τα τέλη της δεκαετίας του 2000. Η εγχώρια βιβλιογραφία παρέχει ενδείξεις ότι η προαναφερθείσα ισορροπία χαρακτήρισε την ελληνική οικονομική δομή και για το μεγαλύτερο μέρος της μεταπολεμικής περιόδου, η οποία ωστόσο ανετράπη βίαια λίγο πριν την έναρξη της Παγκόσμιας Οικονομικής Κρίσης του 2008. Πριν ανατραπεί ωστόσο, παρατηρήθηκε ότι η διοχέτευση κεφαλαίων στο δομημένο περιβάλλον εντάθηκε ακόμη περισσότερο. Συγκεκριμένα, ανάμεσα στα έτη 2002 και 2007, δύο επιμέρους περίοδοι εμφανίστηκαν ως μια «διακεκομμένη διαδικασία μετάθεσης κεφαλαίων» (disrupted capital switching), καθώς υπήρξε μια σύντομη κάμψη και διακοπή της προαναφερθείσας διαδικασίας αμέσως μετά το πέρας των Ολυμπιακών Αγώνων. Είναι ενδιαφέρον ότι παρά την αναγκαιότητα της κατασκευής μεγάλης κλίμακας υποδομών για την πραγματοποίηση των Αγώνων, η μετάθεση κεφαλαίων που σημειώθηκε εκπορεύθηκε κυρίως από την έκρηξη στις επενδύσεις σε κατοικία, η οποία κατέληξε στη γιγάντωση μιας στεγαστικής φούσκας.

Η φύση των εξευγενιστικών τάσεων κατά τη διάρκεια των δεκαετιών του 1990 και 2000 στην πρωτεύουσα της χώρας κρίνεται ως μάλλον σποραδική. Ωστόσο, παρότι διάσπαρτες, αυτές οι διεργασίες παγίωσαν εξευγενισμένους πυρήνες μέσα στην πόλη, οι οποίοι μπορούν να διαχωριστούν σε δύο τύπους. Αρχικά, κατά τη διάρκεια της δεκαετίας του 1990, αστικές πολιτικές με αιχμή την προώθηση νέων χρήσεων γης και τον εκτοπισμό παλαιότερων ως «παρωχημένων» και οχλουσών, σηματοδότησαν τις διαδικασίες εξευγενισμού στη γειτονιά της Πλάκας, οι οποίες σκοπό είχαν να διαφυλάξουν τον ιστορικό της χαρακτήρα. Ακολούθως, οι τάσεις που αναδύθηκαν κατά τα τέλη της δεκαετίας και στις αρχές της επόμενης είχαν περισσότερο να κάνουν με τη στροφή του αστικού σχεδιασμού προς πιο επιθετικές πολιτικές και την πραγματοποίηση σειράς έργων ως προετοιμασία για τους Ολυμπιακούς Αγώνες. Γειτονιές όπως το Γκάζι, το Ψυρρή, και ο Κεραμεικός/Μεταξουργείο αποτέλεσαν παραδείγματα τέτοιων διεργασιών. Κοινός τόπος τόσο για τις πρώτες, όσο και για τις μεταγενέστερες περιπτώσεις εξευγενισμού, ήταν η στενή συσχέτιση με το αναπτυξιακό μοντέλο της χώρας το οποίο προέκρινε ως αιχμή τις κατασκευές και τις επενδύσεις στην κατοικία έναντι όλων των άλλων δραστηριοτήτων, όπως η αστικού τύπου βιοτεχνία. Τα παραδείγματα που αναφέρθηκαν εναρμονίζονται πλήρως με τα ευρήματα και τις παρατηρήσεις των Κεφαλαίων 3 και 4. Πολλώ δε μάλλον, όταν η μεταγενέστερες περιπτώσεις (Γκαζι, Ψυρρή, Κεραμεικός) φαίνεται να ακολουθούν χρονικά τις διαδικασίες περαιτέρω εισροής κεφαλαίων στο δομημένο περιβάλλον και του σχηματισμού της στεγαστικής φούσκας. Η παύση αυτών των ροών συνέπεσε επιπροσθέτως χρονικά με την προσωρινή «απόσυρση» των εξευγενιστικών τάσεων, ειδικά στην περιοχή του Κεραμεικού. Συνδέοντας τα ανωτέρω με τις εργασιακές συνθήκες της περιόδου εκείνης, μπορεί να σημειωθεί ότι οι εξευγενιστικές τάσεις επηρέασαν σημαντικά τις αστικές αγορές εργασίας της Αθήνας καθώς εκτόπισαν την μικρής-κλίμακας βιοτεχνία που είχε ανθίσει καθ' όλη την πορεία αστικοποίησης της πρωτεύουσας από την εποχή του μεσοπολέμου μέχρι και τα τέλη του αιώνα. Ο εκτοπισμός αυτών των χρήσεων μάλιστα με τη σειρά του ενέτεινε τις εξευγενιστικές διεργασίες, καθώς παρείχε νέους χώρους προς εκμετάλλευση για την αναδυόμενη τριτογενοποιημένη οικονομία. Η έρευνα κατέστησε σαφές ότι τα παραπάνω είναι στενά συνδεδεμένα με διεργασίες οι οποίες λάμβαναν χώρα σε ευρύτερες κλίμακες, και συγκεκριμένα την αποβιομηχάνιση του ελληνικού αναπτυξιακού μοντέλου: αυτό μάλιστα διαφαίνεται και από τις περιπτώσεις των δευτερογενών χρήσεων οι οποίες εκτοπίστηκαν παρότι κερδοφόρες.

Στην ίδια κατεύθυνση, διαπιστώθηκε μια έντονη συσχέτιση μεταξύ υποχώρησης των κλαδικών επενδυτικών ροών και επέκτασης της υποαπασχόλησης στο εσωτερικό των κλάδων αυτών. Συγκεκριμένα, ενώ το εγχώριο οικονομικό μοντέλο προ κρίσης προέκρινε τις κατασκευές ως την «ατμομηχανή» της οικονομίας, η κατάρρευση των επενδύσεων στον κλάδο επέφερε μια άμεση χειροτέρευση της ποιότητας της απασχόλησης. Ταυτοχρόνως, οι μειωμένες επενδυτικές ροές στην βιομηχανία κατέδειξαν τη χρόνια υστέρηση του κλάδου, καθώς η ελληνική παραγωγή ποτέ δεν κατέστη υπολογίσιμη απέναντι στον διεθνή ανταγωνισμό, επιδεικνύοντας σημάδια κόπωσης ήδη πολλά χρόνια πριν από τις υφεσιακές πιέσεις. Ωστόσο, η έρευνα του Κεφαλαίου 4 κατέστησε σαφές ότι η συγκράτηση της υποχώρησης των επενδύσεων στον κλάδο της βιομηχανίας, οδήγησε με τη σειρά της και σε μια πιο «μαζεμένη» εξάπλωση της υποαπασχόλησης στον κλάδο. Τελικώς, η ελληνική οικονομική κρίση υπήρξε πρωτίστως κρίση της Αττικής και του εργατικού δυναμικού της, καθώς η περιφέρεια δέχτηκε το μεγαλύτερο βάρος των υφεσιακών πιέσεων, βλέποντας δυσανάλογο αντίκτυπο σε σχέση με τις υπόλοιπες ελληνικές περιφέρειες.

Το Κεφάλαιο 5 αφορά στην ανάλυση της αγοράς βραχυπρόθεσμων ενοικίων στο Δήμο Αθηναίων κατά την περίοδο 2015-19. Ωστόσο, ήδη πριν το 2015, η δραστηριότητα αυτή επεδείκνυε κάποιους αρχικούς πυρήνες στις περιοχές του κέντρου πέριξ της Ακρόπολης. Η Ακρόπολη μάλιστα έπαιξε το ρόλο του κεντρικού οροσήμου γύρω από το οποίο εξαπλώθηκαν τα νέα καταλύματα. Στις αρχικές γειτονιές που εντοπίστηκε δραστηριότητα της αγοράς συγκαταλέγονται οι Πλάκα, ο Κεραμεικός, το Γκάζι, και το Ψυρρή. Σε όλες αυτές οι περιοχές πρέπει να σημειωθεί ότι είχαν παρατηρηθεί εξευγενιστικές τάσεις κατά την προηγούμενη δεκαετία: τόσο η έρευνα στα πλαίσια της παρούσας Διατριβής, όσο και τα ευρήματα της σχετικής διεθνούς βιβλιογραφίας, συνηγορούν στο ότι οι διεργασίες εξευγενισμού δημιουργούν αστικά περιβάλλοντα τα οποία είναι εξαιρετικά ελκυστικά για τους διεθνείς επισκέπτες. Από την άλλη, εξαιρετικά ενδιαφέρουσα είναι η περίπτωση της γειτονιάς του Κουκακίου, η οποία υπεισήλθε σε μία ταχεία διαδικασία τουριστικοποίησης χωρίς να έχουν προηγηθεί εκτεταμένες διεργασίες εξευγενισμού: το εύρημα αυτό καταδεικνύει την σφοδρότητα με την οποία «κατέλαβε» μεγάλο μέρος της πόλης η αγορά βραχυπρόθεσμων ενοικίων. Αυτό είχε ως αποτέλεσμα, πέραν του Κουκακίου, πολλές άλλες περιοχές να αρχίσουν να επιδεικνύουν επίσης τάσεις μετάλλαξης, όταν μέχρι πρότινος ήταν υποβαθμισμένες (π.χ. η Κυψέλη).

Επιπροσθέτως, τα ευρήματα υπογράμμισαν ότι η τουριστικοποίηση, όπου αναδύθηκε, ανατροφοδότησε τις τάσεις εξευγενισμού οι οποίες παρέμεναν σε λανθάνουσα κατάσταση καθ’ όλη τη διάρκεια της βαθιάς ύφεσης (2009-14). Χαρακτηριστικό παράδειγμα είναι ο Κεραμεικός, όπου το ξεδίπλωμα εξευγενιστικών τάσεων κατά τη διάρκεια της δεκαετίας του 2000 διακόπηκε απότομα με την έναρξη της κρίσης, ωστόσο η περιοχή βίωσε εκ νέου έναν ανασχηματισμό λόγω της εδραίωσης της αγοράς των βραχυχρόνιων μισθώσεων. Αυτή τη φορά, τόσο στον Κεραμεικό όσο και αλλού, οι τάσεις αυτές δεν εκπορεύθηκαν από τον κεντρικό σχεδιασμό (όπως στην προγενέστερη περίπτωση της Πλάκας) και το αποτύπωμα των έργων που πραγματοποιήθηκαν στο πλαίσιο της προετοιμασίας για τους Ολυμπιακούς Αγώνες (όπως στην περίπτωση του Γκαζίου και του Κεραμεικού στις αρχές του 2000), αλλά προήλθαν από μια σχετική αύξηση στις ροές των επισκεπτών μετά το 2013, και την αναπροσαρμογή της οικονομικής βάσης σε αυτή τη νέα πραγματικότητα. Αυτός ο «υφεσιακός εξευγενισμός» της περιόδου 2013-15 ήρθε σταδιακά στο προσκήνιο, βασιζόμενος στην απορρυθμισμένη εργασία στις κατασκευές για τις ανακαινίσεις/αναστηλώσεις που απαιτήθηκαν, και στην επισφαλή εργασιακή συνθήκη στον κλάδο της εστίασης για την στελέχωση των επιχειρήσεων (καφέ, μπαρ, εστιατόρια, φούρνοι, σούπερ μάρκετ) που εγκαταστάθηκαν ακολούθως σε αυτές τις περιοχές.

Η έρευνα πια του Κεφαλαίου 6 αναδεικνύει τη δυναμική των εξευγενιστικών πιέσεων μετά την έκρηξη της αγοράς των βραχυχρόνιων μισθώσεων το 2015/16, και την είσοδο πλειάδας διεθνών επενδυτών στο πεδίο της φιλοξενίας στην ελληνική πρωτεύουσα. Τα ευρήματα από τις συνεντεύξεις και τα ερωτηματολόγια ανέδειξαν τη σημασία της αλλαγής του θεσμικού πλαισίου σε αυτού του είδους τις μισθώσεις που πραγματοποιήθηκε το 2015, απελευθερώνοντας την αγορά και οδηγώντας στην απότομη αύξηση του αριθμού των σχετικών καταλυμάτων. Στις δραστηριότητες αυτές αποδίδεται μάλιστα η ανάδειξη της Αθήνας σε σημαντικό διεθνή προορισμό αστικού τουρισμού, καθώς τα ξενοδοχεία δεν κατάφεραν να εκμεταλλευτούν εξίσου αποτελεσματικά τη συγκυρία. Επιπρόσθετα, η πολιτική της Χρυσής Βίζα για την προσέλκυση ξένων άμεσων επενδύσεων η οποία εντάθηκε μετά το 2015 αποτέλεσε κεντρικό παράγοντα για την εισροή διεθνών κεφαλαίων στην ελληνική κτηματαγορά. Οι δυο προαναφερθείσες συνθήκες άλλωστε επέδρασσαν καίρια στο ελληνικό real estate, το οποίο είδε τις πτωτικές για πολλά συνεχόμενα χρόνια τάσεις τελικώς να αντιστρέφονται από το 2017 και μετά. Οι πιέσεις ωστόσο από την άνοδο των αξιών γης, την εισροή διεθνών κεφαλαίων, αλλά και την ανάδυση νέων οικονομικών δραστηριοτήτων γύρω από την φιλοξενία και εστίαση, συνηγόρησαν στο να μετατραπεί ο «δειλός» υφεσιακός εξευγενισμός της περιόδου 2013-15 σε μια ισχυρή τάση, η οποία ανέδειξε έναν ιδιοσυγκρασιακό Αθηναϊκό εξευγενισμό. Οι ανακαινίσεις που έλαβαν χώρα κατά την προηγούμενη περίοδο μέσω των πρακτικών sweat equity ωχριούσαν πλέον σε αριθμό σε σχέση με την ανανέωση του οικιστικού αποθέματος που χαρακτήρισε αυτή τη μεταγενέστερη περίοδο. Ο παράγοντας που οδήγησε σε αυτόν το νέου τύπου εξευγενισμό υπήρξε κυρίως η αντίθεση μεταξύ των απο-επενδυμένων περιοχών λόγω της μακροχρόνιας κρίσης από τη μία, και της μεγάλης προοπτικής που προσέφερε η άνοδος των τουριστικών ροών. Στην αντίθεση αυτή, πρέπει να προστεθεί και η βαρύτητα των προϋπαρχουσών Ολυμπιακών υποδομών (μετρό, αρχαιολογικός περίπατος, εξωραϊσμοί σε κεντρικές γειτονιές, βελτίωση κυκλοφοριακών αρτηριών, κλπ.), οι οποίες προσέδωσαν αξία ακόμη και σε υποβαθμισμένες γειτονιές. Οι αλλαγές ωστόσο δε θα ήταν τόσο ραγδαίες χωρίς την ισχυρή επιρροή των διεθνών κεφαλαίων και τη λειτουργία των διαδικτυακών πλατφορμών για βραχυχρόνια κατοικία όπως το Airbnb. Το αποτέλεσμα των παραπάνω ήταν πολλές περιοχές να βιώσουν μια μετάλλαξη του χαρακτήρα τους και να γίνουν αποκλειστικά πεδία τουριστικής εκμετάλλευσης, με σχεδόν πλήρη εκτοπισμό των μόνιμων κατοίκων και παλαιότερων επιχειρήσεων.

Η έρευνα του Κεφαλαίου 6 τέλος κατέδειξε ότι η ραγδαία παγίωση των εξευγενιστικών τάσεων κατά τη διάρκεια αυτής της περιόδου ενισχύθηκε καίρια και από την ύπαρξη ενός άμεσα διαθέσιμου εργατικού δυναμικού, το οποίο μέσα από διαδοχικές διαδικασίες υποτίμησης απώλεσε κάθε δυνατότητα διεκδίκησης καλύτερων συνθηκών απασχόλησης. Οι τάσεις που σημειώθηκαν κατά την προηγούμενη περίοδο του «υφεσιακού εξευγενισμού» εντάθηκαν σε αυτήν, με την υιοθέτηση μάλιστα των προαναφερθέντων «άτυπων» εργασιακών πρακτικών από μέρους και των διεθνών επενδυτών. Ακολουθώντας τις υποθέσεις του εννοιολογικού πλαισίου όπως παρουσιάστηκαν στο Κεφάλαιο 2, η παρατηρούμενη επισφάλεια, αποτέλεσε τόσο υποστηρικτική προς τον εξευγενισμό, όσο και ενισχυόμενη από αυτόν. Συγκεκριμένα, στις δύο περιοχές μελέτης, οι ανακαινίσεις που απαιτήθηκαν για την προετοιμασία καταλυμάτων βραχυχρόνιας μίσθωσης, ξενοδοχείων, και επιχειρήσεων εστίασης και εμπορίου, πραγματοποιήθηκαν από τα ίδια άτυπα δίκτυα εργατών που είχαν χρησιμοποιηθεί και από απλά νοικοκυριά και μικρούς επιχειρηματίες κατά την προγενέστερη περίοδο. Μάλιστα στο Κουκάκι η έρευνα πεδίου εντόπισε πλειάδα καταστημάτων από μάστορες, οι οποίοι στην πλειοψηφία τους επιβεβαίωσαν την καλή πορεία των επιχειρήσεών τους κατά την παρούσα συγκυρία. Σε αμφότερες τις περιοχές επίσης διαπιστώθηκε ότι η αγορά των βραχυχρόνιων μισθώσεων αποτελεί καίριο παράγοντα απορρύθμισης της εργασίας, καθώς στο σύνολό τους καταφεύγουν σε πρακτικές άτυπης, μη δηλωμένης εργασίας για την υποδοχή των επισκεπτών, ενώ οι ανάγκες μεταφοράς των πελατών και καθαρισμού των διαμερισμάτων καλύπτονται από υπεργολαβική εργασία. Στο Κουκάκι, λόγω των πυκνότερων ροών επισκεπτών σε σχέση με τον Κεραμεικό, παρατηρήθηκε ένα εκτενές δίκτυο σούπερ μάρκετ, πολλά από τα οποία προωθούν το διευρυμένο εικοσιτετράωρο ωράριο. Αν και η εργασία στον κλάδο χαρακτηρίζεται από αντίξοες συνθήκες στο σύνολο της χώρας, διαπιστώθηκε ότι στις εξευγενιζόμενες και τουριστικοποιημένες περιοχές, λόγω της αυξημένης κίνησης, προκύπτει περαιτέρω εντατικοποίηση. Επίσης στο Κουκάκι, οι επιχειρήσεις εστίασης, και ειδικά αυτές που υπόκεινται τον εντονότερο ανταγωνισμό στα πολυσύχναστα τμήματα της γειτονιάς, καταφεύγουν σχεδόν στο σύνολό τους σε παράτυπες εργασιακές πρακτικές παραβιάζοντας συχνά την σύμβαση εργασίας (με μη προσυμφωνημένες ή/και απλήρωτες υπερωρίες). Στον Κεραμεικό, αν και η παραβίαση των συμβάσεων δεν διαπιστώθηκε στον ίδιο βαθμό, η εξάπλωση της υποαπασχόλησης είναι εκτεταμένη: μάλιστα, οι επιχειρηματίες συχνά δήλωσαν ότι καταφεύγουν σε αυτή τη μορφή για να ανταπεξέλθουν στην ευάλωτη ζήτηση. Εξίσου σημαντικό εύρημα αποτέλεσε και το ότι η καλλιτεχνική δραστηριότητα της γειτονιάς, η οποία αποτελεί κεντρικό της χαρακτηριστικό, βασίζεται εξ ολοκλήρου στην απορρυθμισμένη εργασία. Συνοψίζοντας τα παραπάνω, η έρευνα κατέδειξε τη στενή σχέση και αλληλοτροφοδότηση εξευγενισμού και εργασιακής επισφαλειοποίησης, η οποία απαντήθηκε σε ένα ευρύ μάλιστα φάσμα οικονομικών δραστηριοτήτων. Οι ανωτέρω διασυνδέσεις δεν μπορεί μάλιστα να θεωρηθούν απλώς μέρος του «ανίσχυρου δεσμού» που προαναφέρθηκε (ταυτόχρονη εμφάνιση των φαινομένων χωρίς κατ' ανάγκη να συμπέφτουν χωρικά), καθώς γεγονός είναι ότι το απορρυθμισμένο εργασιακό πλαίσιο ήταν αυτό που επέτρεψε στο τόσο μεγάλο πλήθος επιχειρήσεων να εγκατασταθεί σε κατά τα άλλα ακριβές και έντονα ανταγωνιστικές εξευγενισμένες περιοχές. Σε πολλές περιπτώσεις, μάλιστα, δεν αποτέλεσαν οι υφεσιακές πιέσεις τον καίριο παράγοντα για την υιοθέτηση ευέλικτων εργασιακών πρακτικών στις εξευγενιζόμενες γειτονιές, αλλά η γενικευμένη διάχυσή τους μέσα στις εκεί τοπικές οικονομίες συγκέντρωσης. Μέσα σε αυτό το πλαίσιο, η τουριστικοποίηση του αθηναϊκού κέντρου κατέστη η νέα μορφή του εξευγενισμού στην ελληνική πρωτεύουσα, εξελίσσοντας ουσιαστικά τις εξευγενιστικές διεργασίες όπως αυτές παρατηρήθηκαν κατά τις τελευταίες τρεις δεκαετίες.

Τέλος, η παρούσα Διατριβή κλείνει διατυπώνοντας μια Εργασιακή Θεώρηση του Εξευγενισμού. Αυτή η θεώρηση χρησιμοποίησε τα ευρήματα τόσο της παρούσας έρευνας όσο και της σχετικής βιβλιογραφίας, προκειμένου να υποστηρίξει μια σειρά από θέσεις πάνω στη σχέση εξευγενισμού και ευελιξίας στο γεωγραφικό πλαίσιο της Νοτίου ΕΕ. Αρχικά, σημειώθηκε ότι το αναπτυξιακό μοντέλο του αστικού τουρισμού, κατέχει κεντρικότατη θέση σε περιφερειακού τύπου οικονομίες όπως η ελληνική, αλλά απαντάται πολύ συχνά και σε χώρες όπως η Ιταλίας (κυρίως στο νότιο τμήμα της), η Ισπανία, και η Πορτογαλία. Στο πλαίσιο του Ευρωπαϊκού Νότου μάλιστα, αυτή η υπερ-τριτογενοποίηση δεν αποτελεί τόσο προϊόν αποβιομηχάνισης, όσο μια λογική προσαρμογή στη διαχρονική απουσία βαριάς βιομηχανίας. Ωστόσο, εν τη (διαχρονική) απουσία ισχυρών στρατηγικών πολιτικών και κοινωνικο-οικονομικών δομών, αυτή η τουριστικοποίηση έχει οδηγήσει σε μια ανεξέλεγκτη μεγέθυνση της αγοράς βραχυχρόνιων ενοικίων, ερημοποιώντας (από μόνιμους κατοίκους) εκτεταμένα τμήματα του κέντρου των πληγεισών πόλεων. Χωρίς να υποθέτεται ότι οι βραχυχρόνιες μισθώσεις αποτελούν πρόβλημα των πόλεων μόνο στη Μεσογειακή Ε.Ε., οι κεντρικοί τομείς των πόλεων εκεί, αποτελούν πιο συχνά προσιτές επιλογές κατοικίας για την εργατική τάξη (και ως εκ τούτου ο εκτοπισμός της είναι πιο εκτεταμένος) σε σχέση με τον Ευρωπαϊκό Βορρά. Μάλιστα, σε περιπτώσεις «προχωρημένης τουριστικοποίησης» όπως αυτές απαντώνται σε πόλεις όπως η Βαρκελώνη και η Λισαβόνα, παρατηρείται η εμφάνιση ενός ιδιάζοντος «εξευγενισμού από διασπορές» (transnational gentrification), ο οποίος διαμορφώνει θύλακες στον αστικό χώρο οι οποίοι καταλαμβάνονται κυρίως από μετανάστες από ανεπτυγμένες χώρες της Δύσης, και από προσωρινούς επισκέπτες σε βραχυχρόνιου τύπου καταλύματα. Οι μετανάστες αυτοί, συχνά εργαζόμενοι σε δημιουργικές/καλλιτεχνικές δραστηριότητες και στον τεταρτογενή τομέα, επιλέγουν τις πόλεις της Νοτίου Ε.Ε. όχι για εργασιακούς λόγους, αλλά για τον τρόπο ζωής που αυτές δύναται να προσφέρουν. Προσφάτως, τέτοιες τάσεις παρατηρούνται και στην Αθήνα, ωστόσο όχι στο βαθμό που το φαινόμενο αυτό απαντάται στις ισπανικές και πορτογαλικές πόλεις. Παράλληλα, οι σύγχρονες μορφές εξευγενισμού έχουν διευκολυνθεί από το απορρυθμισμένο εργασιακό πλαίσιο που χαρακτηρίζει όλες τις χώρες του Ευρωπαϊκού Νότου, και μάλιστα τέτοιου είδους αστικοί ανασχηματισμοί προωθούνται συχνά ως χωρική λύση απέναντι στις κατακερματισμένες αστικές αγορές εργασίας. Πάρα τα αφηγήματα αυτά, ωστόσο, τόσο στην Ελλάδα, όσο και στις υπόλοιπες χώρες του Νότου, εξευγενισμός και επισφαλής απασχόληση έχουν δημιουργήσει μια ανατροφοδοτούμενη σχέση. Αντιλαμβανόμενοι αυτές τις εξελίξεις, οι πολίτες σε πολλές περιπτώσεις έχουν αναδείξει τον εξευγενισμό και την τουριστικοποίηση σε μείζονα πολιτικά ζητήματα. Για παράδειγμα, αυτά αποτελούν συχνό σημείο αντιπαράθεσης για πολλές συνεχόμενες τοπικές εκλογικές διαδικασίες στη Βαρκελώνη. Τέλος, ο κόσμος της εργασίας, και ειδικά στον κλάδο της φιλοξενίας και εστίασης, βιώνει συνειδητά τις διαδικασίες αυτές ως επιβαρυντικό παράγοντα όχι μόνο σε ζητήματα στέγασης, αλλά και ως προς τη γενικότερη χειροτέρευση των συνθηκών εργασίας του, καθώς η αύξηση των τουριστικών ροών όχι μόνο δεν έχει οδηγήσει σε αντίστοιχες αυξήσεις σε μισθούς, αλλά αντιθέτως, καταλήγει συχνά σε επιμήκυνση των ωραρίων.

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Common acronyms list

GFCF:	Gross Fixed Capital Formation
HELSTAT:	Hellenic Statistics Authority
LQ:	Location Quotient
LTR:	Long-term rentals
P2P accommodation:	Peer-to-peer accommodation
SSA:	Shift-share Analysis
STEM:	Science, technology, engineering, and mathematics (academic discipline)
STR:	Short-term rentals

Introduction

“The urban is being redefined just as dramatically as the global; the old conceptual containers —our 1970s assumptions about what the “urban” is or was— no longer hold water. The new concatenation of urban functions and activities vis-à-vis the national and the global changes not only the make-up of the city, but the very definition of what constitutes -literally- the urban scale.”
(Neil Smith: New globalism, new urbanism: Gentrification as global urban strategy, p. 431)

Topic of research

During the last decades, cities across the Global North undergo two crucial transformations affecting their economic life and geographical structure: the gentrification of their urban fabric, and the flexibilization of their labour markets. Gentrification constitutes a concept first noted in the 1960s, describing the substantial influx of middle- and upper-class urban dwellers into working-class neighborhoods in London (Glass, 1964). This reformation in social composition was manifested in the built environment of the “affected areas” in the form of the degraded housing stock being renovated and rehabilitated, and public/open spaces being reshaped through beautification and redevelopment projects. Besides its architectural side, this transformative process was also leaving its mark upon the economic base of the affected areas, with a range of activities causing nuisance –such as urban manufacturing, warehouses, and traders’ workshops– being displaced and replaced by high-status residential and retail uses. What initially appeared as a marginal process unravelling on the fringes of a handful of global cities (Whyte, 1980), often attributed to the mere *desire* of a well-off youth to experience urban living as a means of escaping the bland life in suburbia (Bourdieu, 1987), gradually turned into a generalized urban strategy (Smith, 2002). Contemporary gentrification constitutes a global phenomenon identified across a variety of geographical contexts and sizes of cities (not to mention the rural aspects of the phenomenon), appropriating a much wider spectrum of activities: tourism-related, recreational, high-status consumption and art, and more (Wyly, 2019).

Labour flexibilization appeared as a concept some decades later to capture the profound reformations in the organization of work schedule and contract, which emerged after the 1973 OPEC oil price rise and the subsequent crisis of manufacturing in large parts of the globe, including North America, Australasia, and Europe (Elchardus, 1991). The turbulences of the next decades led in several cases the production of urban space surpassing industrialization as a means of solving crises of accumulation in the Global North (Lefebvre, 1991), whilst the rapid industrialization of many developing nations transposed parts of global production networks. This “global shift” triggered a profound restructuring within labour markets, marked by some as a transition to the new paradigm of “post-Fordism”, “postmodernism”, or “flexible accumulation” (Lipietz, 1982; Jessop, 2005; Amin, 2011). As a result, the labour force in the Global North experienced a growing flexibilization, which, within a context of a deregulating legal framework, led wide segments into precarity (Vallas, 1999; Jha and Chakraborty, 2014). Specifically, in the urban context, novel types of labour organization appeared, and gradually, sectors that provided a relatively stable full-time employment that was well paid and often covered by a union contract, turned into pools of short-term and precarious labour. The “gig economy” is one such type of labour organization, emerging as a counterweight to traditional working arrangements and being harnessed by transnational corporations such as Wolt and Uber. Beyond the rearrangement of employment contracts, the nature of the workplace itself has shifted, with co-working spaces and multi-purpose buildings, owned by global companies such as ShareDesk and WeWork, seeking to replace traditional office buildings and re-set the work-life boundaries (Madanipour, 2018).

Moreover, the abovementioned overshadowing of industrialization by constructions signified a rechanneling of capital from the sphere of commodity production (the primary circuit) into real estate (the secondary circuit), often in the form of speculative investment. As a process, this capital switching usually precedes periods of economic recession, seeking to postpone the dire impact of stagnated capital in industry (Harvey, 2017). However, instead of ameliorating crises of accumulation, this process generates bust-and-boom cycles of investment and propels a never-ending process of property turnover (Gottdiener, 1994), eventually leading to housing bubbles such as the one which unleashed the 2007 Global Crisis (Mayer 2011).

What started in 2007/2008 as a liquidity crisis in the US, was soon transferred to the EU and turned into a sovereign debt crisis mainly affecting the countries of the South EU (Palaskas et al., 2015). In Greece, that was translated into a deep recession, the severity of which was marked by harsh measures imposed as structural reforms by the Government and the Troika[1] through a series of Economic Adjustment Programmes. Large parts of the workforce were subjected to an involuntary conversion of their contracts from full- to part-time, and besides the impact on domestic labour markets, the recession left deep scars upon the built environment of most Greek cities (Mavroudeas, 2014). The metropolitan area of Athens, which constitutes the country's largest regional economy and concentrates the largest part of national employment, embodies this regional unevenness of the Greek socioeconomic formation (Palaskas et al., 2015). Nevertheless, the city proved particularly vulnerable under recessive pressures. The merriment of the post-2004 Olympic Games era faded to give way to a bleak reality of urban fabric degradation and labour markets dismantling, culminating during a period of deep recession (2009-13).

However, the reality of the last decade has begun shifting, with tides of urban tourism –swelling 2013 onwards– being harnessed by a booming peer-to-peer accommodation market via online platforms such as Airbnb. Land values have exhibited sharp increments after years of shrinking (Re/MAX, 2019), but albeit dynamic, they still remain low in comparison to other cities of Mediterranean-EU. This, plus a lucrative Golden Visa residence-by-investment program, have caught the eye of a circulating transnational capital, which is gradually choosing Athens' real estate as an outlet for investment (Galimov, 2019). Pressures from tourism-related activities and the inflow of transnational capital have pushed the advancement of a levelling touristification, conditioning a suitable environment for the resurgence of a post-recession urban restructuring in Athens, which is evidently reflected upon the city's built environment. An ageing housing stock is being renovated, and areas of the central core are being redefined as "foreigners-only touristic enclaves" (see Cocola-Gant and Lopez-Gay, 2020 for Barcelona). More than that, such transitions bear a direct and profound impact upon inner-city labour markets. As a new range of economic activities mushrooms targeting the needs and tastes of tourists' inflows (Balampanidis et al, 2019), parts of the labour force that had been previously rendered idle by economic shocks and changes in labour regulation are being rehired in retail, recreation, and hospitality. Nevertheless, even though unemployment has been confined on some level, what seems to be a path-dependency low-road flexibilization has settled in. This flexibilization effect is horizontal, with working conditions worsening not only for the lower ranks of the precariat, but also for a wide range of freelancing and waged alike workers in the creative and knowledge economies. Unfortunately, the current state of affairs (Spring 2020) has underlined and exacerbated the existing pressures upon labour markets, as the recent Covid-

[1] The committee formed by the EU, the ECB and the IMF to monitor the Greek economy.

19 pandemic has pushed a notable part of the Athenian workforce into uncertainty, having their income and working hours cut, as well as their contracts suspended or terminated.

Research statement

The Thesis at hand constitutes a PhD by publication, comprising five (5) published papers featured in international scientific journals, and two (2) additional papers which have been submitted to journals, and are currently undergoing revisions. Objective-wise, this study seeks to frame the wider discussion by focusing upon the recursive relationship between gentrification and labour flexibilization/precarity in contemporary cities. Its **aim** is to scrutinize this reciprocal relationship as being analytically reachable, and to do so, it seeks for a taxonomy of the different types of links between gentrification on the one hand, and flexibilization or precarity on the other. Gentrification is addressed as a spatial fix, and labour flexibilization as an economic and organizational fix, both promoted as solutions to problems of capital accumulation. Theory-wise, the research at hand draws upon the rich tradition of Gentrification Studies through the lens of Critical Geography (Smith, 2011), being consistently Critically Realist. It moreover utilizes theoretical tools from Geographical Political Economy (Harvey, 2011). The **overreaching goal** of the Dissertation is to contribute to the analyses of how the urban landscape is being transformed in many contemporary cities, and formulate a labour-sensitive theorization of gentrification within the context of the South EU.

All the above lead to the articulation of three **research questions**:

i. In which ways gentrification and labour flexibilization interrelate? Does gentrification of urban areas affect labour markets, and if so, how is that reflected upon flexible and precarious employment within the city and beyond? Moreover, do re-/deregulated intra-urban labour markets facilitate the unravelling of gentrification tendencies?
ii. Beyond the obvious effect of economic crises on labour devaluation, what is the impact of recessive pressures upon the relationship between gentrification and flexible or precarious labour, if such a relationship exists? Is recession encouraging or hindering mutually reinforcing connections between the two processes on hand?
iii. Is there any relation between trends observed at the intra-urban level and those present on wider scales, such as the regional or the national one? What is the impact of regional scale socio-spatial trends upon gentrification and urban labour precarization tendencies?

The **principle issue** of this research is to explore the extent to which gentrification and labour flexibilization/ precarization derive from common underlying mechanisms and how, as processes, are intrinsically intertwined at multiple scales – not necessarily limited to the urban one. More specifically, this articulation implies a division between weak and strong links connecting the two processes. The first refers to gentrification and labour flexibilization being concurrent processes in response to crises of accumulation, but processes that can be somewhat spatially independent of one another nonetheless. The second, upon which the research places an increased focus, refers to gentrification and flexibilization being much more tightly interconnected in causal and spatial terms, and one playing a focal role in the expansion of the other.

In answering these questions, the study uses a combination of diverse techniques and methods, implementing a **mixed-methods approach**. Data are both **quantitative and qualitative**, coming from **secondary, as well as primary sources**. A **multi-step methodological scheme** operationalizes the conceptual framework that has been devised during the initial stages of research. The empirical analysis first traces trends unraveling at larger scales, before narrowing down its scope and focusing upon two **case studies** (two central Athenian neighborhoods). There, the postulations made through the analysis of larger scales are thoroughly tested through a comprehensive fieldwork which includes questionnaires, interviews, mapping, and participant observation.

The empirical analysis indeed reveals a multitude of strong links connecting gentrification and labour precarity at the intra-urban level, which go both ways. Specifically, it shows that constructions and renovations in gentrified landscapes rely heavily upon the labour of ever more precarious and flexibilized workers. Moreover, that economic activities replete with casualized work arrangements, such as parts of the gig economy, emerge as *endemic* to gentrified areas. Last, that gentrification constitutes a central factor for the disruption of long-established inner-city labour markets, as it displaces a variety of economic activities that have traditionally provided a flow of stable and typical employment, such as small-scale urban manufacturing.

Despite the particularities of the two neighborhoods chosen as case studies, the research seeks to reach conclusions that transcend these localities through a cautiously designed **multi-scalar approach**. In this direction, many traits of the case studies are carefully framed as idiosyncrasies of the South EU context, or as outcomes of Athens's distinct urbanization patterns. In exploring the particular nature of Greek gentrification, the approach of this study recognizes the significance of calls for context-sensitive research regarding gentrification (e.g. Cartier, 2017; Maloutas, 2017), but also accepts the planetary reach of gentrification (Wyly, 2015).

Relevant debates and novelty of approach

Whereas much early research on gentrification focused upon understanding the mechanisms driving the process (supply-side approaches, see Smith, 1987) or the decision-making of middle-class home owners (demand-side approaches, see Ley, 1986), with its intensification and geographical expansion in recent decades (Slater, 2017), new perspectives have been added to the corpus of research. In particular, recent contributions delineate the "5th wave of gentrification" as a type of gentrification characterized by the increasing role of short-term accommodation platforms and transnational capital (Aalbers, 2019). Often, this type is referred to by the neologism "touristification", highlighting an either way long symbiotic relationship between tourism and gentrification (Gotham, 2005). The crucial difference between older cases of tourism-driven gentrification and recent cases of touristification is that in the latter not only do economic activities shift to appeal tourists, but the housing stock itself is converted to short-term rentals through peer-to-peer accommodation platforms. The outcome, including increments in real estate values, the renovation of the housing stock, and the displacement of residents and businesses, resonates with long-studied externalities attributed to "traditional" gentrification (Lee, 2016). The main difference here is that in the case of touristification, long-term residents are not being displaced by an inflow of more affluent classes, but by a recycling multitude of short-term visitors (Sequera and Nofre, 2018).

Literature on gentrification in Athens is scarce, with only a few studies exploring gentrification processes in the city. From those cases identified, the most commonly researched is the historic neighborhood of Plaka, which constitutes an early (since mid-1980s) case of state-led gentrification. Additionally, the neighborhoods of Psirri, Metaxourgio/Kerameikos, and Gazi, which constitute more recent cases of agent-led gentrification, have also been addressed in the literature (Alexandri, 2018; Avdikos, 2015). Due to the rapid expansion of touristification across many inner-city areas, parts of the literature have also covered the links between the recent explosion of short-term rentals and the activation of gentrification processes (Balampanidis et al., 2019). However, as the Athenian urban space presents diachronic idiosyncrasies, such as low residential mobility and vertical social stratification instead of segregation, which theoretically contrast the long-studied signs of gentrification, doubts have been raised among researchers as to whether actual gentrification tendencies can materialize in the Greek context (Maloutas, 2017).

Regarding the issue of labour flexibilization, relevant research in Europe focused at the regional level is relatively limited (Fritsch and Verwiebe, 2018; Psycharis et al., 2014; Kallioras et al., 2016). A very active part of it refers to South America, due to a series of recent developments, such as the IMF-backed neoliberal reforms in Argentina (Felder and Patroni, 2018). All these studies, however, do not delve deeper into the intra-urban scale. The studies that do refer to these micro-scales, usually focus on the emerging ways of firms' and workspaces' organization (Madanipour, 2018), without measuring their impact in terms of labour flexibilization. The literature of labour precarity is much more voluminous; however, it mainly pertains to precarity as a state of living within and beyond the workplace, without scrutinizing the changing labour conditions qualifying it as such (Strauss, 2017).

To date, the recursive relationship between gentrification and labour flexibilization has not been the subject of systematic and comparative inquiry in the international literature. The most usual way the literature of gentrification has engaged with labour is in terms of how the "new middle classes" (the prime consumers of gentrification) often find themselves within an unstable and unregulated employment reality, working in the postindustrial city (indicatively, Ley, 1994; Préteceille, 2010; De Peuter, 2014). Not unrelatedly, a long line of studies on the concept of the "creative city" have suggested that young professionals in creative industries and start-up entrepreneurship play an important role in fostering urban regeneration in their immediate environs (Florida et al, 2020). The most relevant approaches to this Dissertation have studied some aspects of the role of precarious labour in gentrified landscapes. Most importantly, Sassen (1997) has highlighted the importance of casualized building trades in renovations and petty construction in cases of marginal gentrification, and Curran (2007) has revealed the indirect role of gentrification in the casualization of in situ labour markets by displacing urban manufacturing. Additionally, some contributions have touched upon the issue of labour precarity as an outcome of gentrification-related displacement (Williams and Needham, 2016: Hum and Stein, 2017).

Therefore, even if tentative links between housing and labour markets had been already established since the first theorizations of gentrification (Smith, 1979; Marcuse, 1989), this part of the literature remains rather underdeveloped. The Dissertation at hand comes to address this lacuna of research. Moreover, it contributes to the scarce literature on Athens's gentrification cases. On a theoretical level, it contributes to discussions on the interconnections between emerging spatial fixities and the consequent labour underutilization, an issue which remains overlooked. Furthermore, in exploring the wider context of the recursive relationship between gentrification and labour precarization/flexibilization, the study achieves to address a series of other gaps in the literature. For one, it places increased focus upon the issue of under-employment, often known as 'hidden unemployment', which is a relatively under-researched aspect of contemporary economic restructuring as only a handful of scholars have discussed its relation to labour flexibilization (see Green and Livanos, 2015; Jenkins and Charleswell, 2016). Besides that, it manages to discuss the Greek crisis at a deeper level; most scholars have analyzed the hows and whys of it on national scale, but only a few have managed to display its spatial aspect and contradictions at regional level (see Polyzos et al., 2013; Psycharis et al., 2014; Kallioras et al., 2016).

Summarily, driven by the novelty of its subject, this study borrows some of the characteristics of an **exploratory research** (St Martin and Pavlovskaya, 2010). As such, it encompasses an enhanced visual aspect, including maps, tables, and graphs, in order to identify hitherto under-researched patterns and causal links. Moreover, in assisting the reader, it includes numerous comprehensive visualizations of its main conceptualizations. As an exploratory research, it uses a comprehensive conceptual framework as a basis, synthesizing existing contributions but also incorporating novel propositions. It gives increased attention to defining its central concepts: gentrification, and labour flexibilization/precarization. This step is crucial, in order to avoid definitional conflation; for instance, every inner-city renewal process has often been viewed as an example of gentrification (as Maloutas, 2017 warns). Similarly, the terms flexibilization and precarity do not share the same meaning; whereas the former refers to the expansion of malleability in specific working conditions such as working hours (Katz and Krueger, 2016), the latter refers to the insecurity that stems from such working conditions (Strauss, 2017). The study argues very cautiously about their interchangeability within the specific context of the South EU, counting in the largely involuntary character of part-time labour and the poor wages and benefits for workers in it (Mavroudeas, 2014). Furthermore, in such a research where the conceptual framework serves as a crucial basis for the analysis, the definitions have to be robust in order to adequately cover the complex nature of the phenomena under study, and also, to be clearly articulated in order to render the parameterization of engaged concepts feasible. The proposed methodology diverges from prior approaches, starting from an index-driven inquiry on larger scales, before gradually narrowing down its scope and gain insight through a case study. This way, it attempts to overcome the schism in Gentrification Studies between understandings space and place solely through qualitative data, and the *dry* empiricism based on a contemporary "data deluge" (Kitchin, 2013).

Epistemological approach

The research at hand constitutes a **theoretically-informed but empirically-grounded study** that follows the principles of **Critical Realism**, an epistemological approach that has deep roots in Critical Geographic thinking. There, reality is perceived to be objective regarding the natural world and social relations, and analytically reachable (Yeung, 1997). Having emerged as a critique to Logical Positivism, Critical Realism moves away from the empiricism of theory-neutral approaches, seeking to examine social structures and relations following a **theory-laden** interpretation of findings (Sayer, 2004). Therefore, even though it accepts an objective reality, the process of its interpretation can be ambiguous, shaped by the way research questions and hypotheses are posed. In any case, the theory-ladenness of human observation should not be conflated with Theoretical Determinism, which differentiates from both Critical Realism and Logical Positivism (Rhoads and Wilson, 2010). The ontology of Critical Realism can be understood as layered, with its depth containing all causal relations between structural forces; in this sense, the objective in studies following this reasoning is to understand phenomena at a deeper level by unveiling the causal relationships developing. For that reason, and counting in the complexity of articulation mechanisms of social phenomena, Critical Realism is often context-sensitive, following a case-specific inquiry that is geographically-grounded. Last, even though Critical Realism accepts agency as a substantial counterweight to structure, it does not adhere to humanistic geography's *fondness* of the individual agent's capacity for change. In opposing methodological individualism, Critical Realism implements a dialectical approach to the *dipole* of structure and agency, where the process of 'structuration' is continuous and takes place on multiple scales at the same time (Trochim and Donnelly, 2001). Nonetheless, the human factor is not negligible; agents "ponder upon wider structures, and thus change the conditions of their own existence" (Shaw et al, 2010).

Based on the above, the study at hand contemplates upon urban restructuring and labour conditions' shifts as the result of wider socioeconomic rearrangements, which, furthermore, are profoundly impacted by economic crises. In attempting to address this bivariate matter, it tracks underlying mechanisms operating across multiple scales through a method of descaling and rescaling its scope. **Multiscalarity**, therefore, is a focal aspect of this approach, as not only it allows for an analytical adaptiveness, but it also bestows upon research a hermeneutical capacity that transcends scales (based on Somerville, 2010). Sources-wise, the empirical analysis makes observations upon a meticulous inquiry of robust sets of secondary quantitative data, and subsequently examines their validity and significance through context-sensitive primary data, most of which are used in a qualitative manner. Research methods, then, combine the empirical observation on the large scale, but also the "humanistic understanding", established through qualitative data on the level of a (dual) case study; as such, the approach to **data collection** is **both extensive and intensive** (Herod and Parker, 2010). The motive for this diversity of sources and types of data is related to the novelty of the subject and the lack of a widely-accepted methodological framework for its inquiry. Ultimately, however, the chosen research methods seek to overcome the low explanatory capacity of *detached* extensive data, by combining them with intensive data referring to specific case studies. Qualitative data take up a crucial role here, as they allow the inquiry of multiple aspects at the micro-scale by focusing on the lived experiences of actors within gentrifying landscapes (Cummins et al, 2005), whereas conventional quantitative research is proved to be incapable of producing such knowledge of place (Frohlich et al, 2001). The combination of data sources and types, as well as the constant 'triangulation' of findings, gives this study a **post-positivist** character (Trochim and Donelly, 2001). Questions are posed in a clear manner as to direct research in scrutinizing causal connections rather than pursuing random correlations.

Methodology and Stages of research

As mentioned above, the study constitutes a mixed-methods approach, as it utilizes a wide array of quantitative and qualitative data collected through secondary sources and fieldwork (Herod and Parker, 2010). Secondary data are quantitative; primary data, obtained through fieldwork, are mainly qualitative, even though by carrying some statistical significance they are also used as quantitative. Structure-wise, research begins by establishing a solid conceptual framework which discusses the main issues of research on theoretical level, drawing insight by the relevant literature. The empirical analysis that follows starts with setting a research background through the inquiry of secondary quantitative data on larger scales. There, it first examines the characteristics of labour markets at regional level and in the country as a whole; then it studies investment flows vis-à-vis underemployment expansion patterns in the region of Attica; last, it turns to the housing market of the City of Athens, inquiring the spatialities of short- and long-term rentals and exploring potential links between the two. Having set a research background, the empirical part proceeds with its main phase conducting a thorough comparative analysis at the intra-urban level using two inner-city neighborhoods as case studies, based on data obtained through a comprehensive fieldwork. Table 1.1 shows the stages of research divided in steps, the period of their implementation, and their related deliverables.

Regarding the specific datasets used, employment-related data are retrieved from HELSTAT's Labour Force Surveys referring to national and regional levels; data on Gross Fixed Capital Formations (investment flows) are retrieved from HELSTAT's National Annual Accounts, having the same geographical reference as above; Data on short-term rentals are retrieved from the database of InsideAirbnb[2], referring to the urban level (the City of Athens); similarly, data on long-term rentals have the same geographical reference, and are retrieved from the annual surveys of the Re/MAX real estate agency. Fieldwork data are about gentrification tendencies and aspects of local labour markets at the intra-urban level, and are obtained through semi-structured interviews, structured questionnaires, participant observation, photographs, and mapping of land uses.

In what follows, the stages and steps of research are laid out in detail, with each stage/step associated with specific chapters of this Thesis.

[2] www.insideairbnb.com

Table 1.1: Stages of research, period of implementation, and related deliverables/chapters

Stage		Step	Period of implementation										Related deliverable (♦)
			2015-16 (1st term)	*2015-16 (2nd term)*	*2016-17 (1st term)*	*2016-17 (2nd term)*	*2017-18 (1st term)*	*2017-18 (2nd term)*	*2018-19 (1st term)*	*2018-19 (2nd term)*	*2019-20 (1st term)*	*2019-20 (2nd term)*	
Preparation	1	Design of research implementation framework			♦								Funding proposal submitted to the Greek State Scholarships Foundation
Literature reviews, Seconadry data collection, and Analysis	2	Literature review on underemployment expansion patterns				♦							Paper titled "'Going under-employed': Industrial and regional effects, specialization and part-time work across recession-hit Southern European Union regions" (Chapter 3)
	3	Collection, processing, and analysis of secondary data on employment											
	4	Literature review on gentrification, focusing on the South EU context				♦							Paper titled "Gentrification in the Greek context: Urban transformations and labour markets amid crisis" (Annex I)
	5	Literature review on the notions of capital switching and spatial fixes									♦		Paper titled "Dismantled spatial fixes in the aftermath of recession: Capital switching and labour underutilization in the Greek capital metropolitan region" (Chapter 4)
	6	Collection, processing, and analysis of secondary data on investment flows											
	7	Literature review on the relationship between urban gentrification and labour flexibilization and finalization of conceptual framework							♦				Paper titled "'Linking Gentrification and Labour Market Precarity in the Contemporary City: A Framework for Analysis" (Chapter 2)
	8	Collection, processing, and analysis of secondary data on the short-term and long-term rentals' markets								♦			Paper titled "Studying the Spatialities of Short-Term Rentals' Sprawl in the Urban Fabric: The Case of Airbnb in Athens, Greece" (Chapter 5)
	9	Collection, processing, and analysis of updated secondary data on employment									♦		Paper titled "Inter-regional underemployment and the industrial reserve army: precarity as a contemporary Greek drama" (Annex II)
Fieldwork and Analysis of primary data	10	Collection, processing, and analysis of primary data on gentrification and labour in two neighborhoods of Athens, Greece										♦	Paper titled "On the recursive relationship between Gentrification and Labour Market Precarity: Evidence from two neighborhoods in Athens, Greece" (Chapter 6), analysis of fieldwork's questionnaires (Annex IV)
Synthesis	11	Synthesis of findings and final conclusions										♦	PhD Dissertation

The first step (October 2015- December 2017) refers to the design of an implementation framework, which addressed methodological and conceptual challenges. During this introductory stage, I devised a tentative framework to connect the processes of urban gentrification and labour flexibilization/precarization. The initial analytical scheme encompassed two scales, the intra-urban and the supra-urban/regional, which were to be juxtaposed, as multiscalarity stood central in this bivariate study from the very beginning. The outcome of this process was a proposal submitted to the Greek State Scholarships Foundation, which financed my Dissertation. The implementation framework devised in this step has henceforth been recalibrated, incorporating the national as an additional scale.

The second step (December 2015- July 2016) opens the Stage of Secondary Empirical Analysis. There, I conducted a literature review on underemployment expansion patterns in the context of the EU and beyond. The covered research pertains to the factors spurring underemployment and the sectors where it is mostly documented.

In the step that follows (3) (May 2016- January 2017), secondary data on employment figures for Greece and its thirteen regions were collected and processed. Data refer to various types of employment as shown in Table 1.2, including total and waged employment, part-time employment and its involuntary segment, unemployment, etc. The time reference of data is two three-year periods, which cover the pre-crisis years right after the 2004 ‘merriment’ of the Greek Olympic Games mega-projects, financial speculation, and related investments (2005-08), and the first years of economic depression right after the Eurozone crisis and the implementation of the first memorandum (2009-12). Data here were divided across nine grouped sectors: Sector 1 refers to primary production, Sectors 2, 3 and 4 to secondary activities (manufacturing, construction, and energy production, respectively) and Sectors 5, 6, 7, and 9 to tertiary activities (commerce and communications, hospitality, scientific professions/the ”knowledge economy”, and recreational/artistic activities and households as employers, respectively), whilst Sector 8 to public services, health, and education. This categorization is common for all data pertaining to employment used in the next steps. Data in this step were analyzed through a series of indices and techniques. Specifically, the Location Quotient (LQ) was used in order to identify regional over- and under- concentrations of particular employment types, and to distinguish the Greek regions according to their productive specializations. Shift-Share Analysis (SSA) was used to distinguish the factors of employment figures’ changes in wide nation-wide trends, industries’ performance on national level, and region-specific traits. The above two steps produced the paper comprising Chapter 3, called “Going under-employed: Industrial and regional effects, specialization and part-time work across recession-hit Southern European Union regions”, which has been published in the European Urban and Regional Studies by SAGE in 2018.

Step 4 (June 2016- June 2017) constitutes the first theoretical approach on the hard subject of the Dissertation at hand. It started by covering the basic Theories of Gentrification, and then resuming with the empirical research in the context of South EU and Greece. Furthermore, an initial approach was attempted on linking those cases of urban restructuring in the Greek capital with shifts across its labour markets. The literature review conducted here produced the paper comprising Annex I, called “Gentrification in the Greek context: Urban transformations and labour markets amid crisis”, presented in the 54th ASRDLF & 15th ERSA-GR conference, “Cities and regions in a changing Europe: challenges and prospects".

Continuing the work of the previous step, the literature review conducted in Step 5 (September 2016-October 2017) turned its focus upon the concepts of capital switching and spatial fixes. In the process, literature review covered those theorizations and empirical studies pertaining to economic crises vis-à-vis underemployment, and the crucial scales within which the disruption of labour unfolds.

Having obtained an overview of domestic labour markets in terms of productive specializations and proneness to underemployment expansion (Step 3), I embarked on a more thorough analysis of the Attica region labour market and the mechanisms in operation affecting its trajectory. The analysis in this step (6; April 2017- May 2018) addressed multiple scales, starting from the national level and then focusing on the region of Attica. More specifically, data on Gross Fixed Capital Formations (GFCF) were collected in order to examine potential investment flows into the built environment on national level. The analysis there used an index, based on the work of Christophers (2011) and Kutz (2016), that was introduced for the first time in the Greek literature. The formula of the index is laid out in detail in the methodological part of Chapter 4. The fluctuations of its values constitute a solid proxy for identifying periods of capital switching. The timeframe of data was widely differentiated from the previous steps (2005-12). Because of the cyclical rhythm of investments in the built environment (lasting up to 20 to 25 years, Harvey, 1978), data here refer to the years between 1995 and 2016. Following the analysis on investment flows, data on waged full-time and part-time work were collected for the capital metropolitan region of Attica, and were compared to data on GFCF per sector (not to be confused with data on GFCF per investment product, which are available solely on the national scale), with a timeframe similar to Step 3 (2005-08, 2009-12). The goal here was to identify whether, in the context of Attica, investment flows into specific sectors affect the types of employment concentrated therein. Steps 5 and 6 produced the paper comprising Chapter 4, called "Dismantled spatial fixes in the aftermath of recession: Capital switching and labour underutilization in the Greek capital metropolitan region", which has been published in the International Journal of Urban and Regional Research by Wiley in 2019.

Step 7 (June 2015- December 2019) started with a thorough literature review of the approaches engaging with gentrification and labour flexibilization comparatively. As has been stressed out in the introductory parts of this chapter, there has not been any prior systematic research on this connection. For that reason, the review included approaches that dealt with mere aspects of it, or some that just touched on the matter. Then, the focus steered to devising a conceptual framework on the recursive relationship between gentrification and labour precarization, which would synthesize the findings of the literature review of this step, but also the insight from the literature reviewed in Steps 4 and 5 (on gentrification in the Greek and South EU context, and on the notions of capital switching and spatial fix, respectively). This step produced the paper comprising Chapter 2, called "Linking Gentrification and Labour Market Precarity in the Contemporary City: A Framework for Analysis", which has been published in Antipode in 2019. It must be noted that even though this step is mentioned as next in order to Steps 5 and 6, it started before them, but also lasted much longer (see Gantt Chart in Table 1.1). Step 7 was crucially important, as the methodology implemented in the next parts of the empirical analysis operationalized the parameters set here. The finalized conceptual framework brought the issue of short-term rentals to the forefront. Displacement caused by the expansion of this market, as well as being a worker or a host in such listings were highlighted as an integral part of the recursive relationship between gentrification and precarization of labour.

Stemming from the above, Step 8 (July 2018- June 2019) implemented a brief cartographic analysis on the spatialities of the short-term rentals market in Athens. In order to interpret the temporal and spatial effect of STRs within the City of Athens, two data dumps were obtained for the same month of 2015 and 2018. On the one hand, 2015 constitutes the moment just before the explosion of the STRs market, whereas 2018 referred to the most recent data available at the time of extraction. The analysis focused on the number of listings per neighborhood and their relative change between 2015 and 2018. Then, it examined the density of listings per neighborhood (number of listings per km^2) and its change throughout the study period. Last, it calculated the Location Quotient (LQ) in order to get a glimpse of relative concentrations beside the absolute density of each neighborhood. Regarding long-term rentals, the analysis extracted data for the years 2016 and 2018, as data for 2015 were missing. There, the relative change in mean price was calculated (euros per month per square meter). Last, the analysis drew some tentative links between short-term rentals expansion (increasing densities and high values in LQ) and long-term rent increments through three distinct correlation coefficients: Pearson’s r, Spearman’s ρ, and Kendall’s τ. Step 8 produced the paper comprising Chapter 5, called “Studying the Spatialities of Short-Term Rentals' Sprawl in the Urban Fabric: The Case of Airbnb in Athens, Greece”, published in the proceedings of the International Conference on Artificial Intelligence Applications and Innovations in 2019.

Table 1.2: Secondary data outline

<table>
<tr><th>Purpose of use</th><th>Source</th><th>Data subject</th><th>Unit of data</th><th>Methods of analysis</th><th>Time reference</th><th>Geographical reference</th></tr>
<tr><td rowspan="8">Labour markets analysis</td><td rowspan="8">HELSTAT Labour Force Surveys</td><td>Total employment</td><td rowspan="8">Workers' absolute numbers, share in total employment</td><td rowspan="8">LQ, SSA</td><td rowspan="8">2005-08, 2009-12, 2013-16*</td><td rowspan="8">Regional (13 Greek regions)</td></tr>
<tr><td>Unemployment</td></tr>
<tr><td>Part-time employment</td></tr>
<tr><td>Full-time employment</td></tr>
<tr><td>Involuntary part-time employment</td></tr>
<tr><td>Voluntary part-time employment</td></tr>
<tr><td>Waged part-time employment</td></tr>
<tr><td>Waged full-time employment</td></tr>
<tr><td rowspan="2">Investments flows analysis</td><td rowspan="2">HELSTAT National Annual Accounts</td><td>Gross Fixed Capital Formations per investment product</td><td rowspan="2">Thousand euros</td><td>Building Share Index</td><td>1995-2016</td><td>National (Greece)</td></tr>
<tr><td>Gross Fixed Capital Formations per sector</td><td>Controlled comparison to waged underemployment figures</td><td>2005-08, 2009-12</td><td>Regional (13 Greek regions)</td></tr>
<tr><td rowspan="3">STR market analysis</td><td rowspan="3">InsideAirbnb.com</td><td>Airbnb listings position</td><td rowspan="3">Airbnb listing</td><td rowspan="3">Mapping of absolute number of listings per neighborhood, density (listings/km2), LQ, correlation to LTR prices (through Pearson’s r, Spearman’s ρ, and Kendall’s τ)</td><td rowspan="3">2015-18</td><td rowspan="3">Point (in City of Athens)</td></tr>
<tr><td>Airbnb listings type (whole dwelling, private room, shared room)</td></tr>
<tr><td>Airbnb listings reviews</td></tr>
<tr><td>LTR market analysis</td><td>Re/MAX annual real estate surveys</td><td>Rent prices</td><td>Euros/square meter</td><td>Relative change in mean price (€/month/m2)</td><td>2016-18</td><td>Neighborhood (in City of Athens)</td></tr>
</table>

**the last timeframe used only in ANNEX II*

Before proceeding with the final phase of the empirical analysis, a decision was made to update existing analyses on regional labour markets, in order to avoid establishing an understanding on outdated data. The reason this occurred at that point, was that data which became available then, could cover another three-year period. Hence, the analysis of Step 9 (July 2019- October 2019) added the years 2013-16 to the previous two periods (2005-08, 2009-12). Data used there referred to waged employment (part-time and full-time) and unemployment, with a geographical focus on the two metropolitan regions of Greece (Attica and Central Macedonia), which were compared to each other and to all the rest Greek regions. This step differentiated from Steps 3 and 6 in terms of its analytical depth sector-wise. The two metropolitan regions were scrutinized thoroughly regarding their sectoral structure by using the Location Quotient. Step 9 produced the paper comprising Annex II, called "Inter-regional underemployment and the industrial reserve army: precarity as a contemporary Greek drama", which has been submitted to the European Urban and Regional Studies by SAGE; the paper is currently under revisions, as it was not rejected by the reviewers.

Table 1.2 above summarizes all secondary data used within the framework of the research at hand, and provides thorough details about each type, including source, use, timeframe, etc..

Step 10 (May 2018- October 2019) refers to the collection, processing, and analysis of primary data. Fieldwork was comprehensive and encompassed a spectrum of data collection methods: semi-structured interviews with key informants, structured questionnaires with three groups (residents, workers, business owners), mapping of land uses, photographic fieldwork, and participant observation. The period of implementation for this step was long, as it lasted almost one-and-a-half years, divided in two sub-periods where I was in the field: May to November 2018, and June to October 2019. The in-between period included fieldwork findings assessment and preparation for the second phase. Fieldwork was divided in separate phases, which very often overlapped, but their sequence was organized on the basis that data collected in prior phases to be leading to and facilitate the following. For that reason, questionnaires preceded semi-structured interviews, as the insight of the former was translated into questions in the latter, or even the key informants themselves came to my attention during questionnaires' administration. The phases of fieldwork are laid out here in detail, as for reasons of word limit during submission, they were not described adequately in the respective paper (Chapter 6).

1. Selection of study areas, and planning of fieldwork.

During this first phase, which took place in 2017-18, two areas were chosen on the basis that they both exhibit similar characteristics in terms of their dynamism in tourism-oriented activities and recreation, but their gentrification/touristification trajectories have been deeply divergent. On the one hand, Koukaki constitutes the most characteristic example of rapid touristification in Athens, as its social and economic composition were almost entirely subverted during the last five years (Stergiou and Farmaki, 2019). On the other, Kerameikos constitutes one of the most distinct and longstanding cases of gentrification in Greece, having experienced successive rounds of socio-spatial restructuring already since the mid-1990s, enduring until today. Combined, these areas cover a substantial part of downtown Athens; their inquiry would allow for the identification of the various blends of urban restructuring and gentrification unfolding across the inner-city. After the selection of the study areas, fieldwork was planned as laid out in the remaining phases.

2. Field observation

During this phase, which took place in June 2018, I got familiarized with the research areas, identified their main landmarks, checked their boundaries, studied the in situ economic base (retail, recreation, administration, urban small-scale manufacturing, workshops, etc.), and examined the state of their open/public spaces and building stock. Equally important, I explored the character of these local communities, observing the frequency and intensity of street interactions, as well as their ethnic and class composition (see Carpiano, 2009).

3. Participant observation

This essentially constitutes a horizontal phase, conducted during two periods (May to November 2018, June to October 2019), where I documented the conditions of living and working therein. I established a very often physical presence in the area, which covered most periods of the year, including the high tourist season of the summer. I also made sure to spend time the areas at many different days of the week, covering both workdays and weekends, as well as most hours of the day. Participant observation refers a wide array of activities, from mere strolling (”flaneuring”, which constitutes a crucial part of social research [Hubbard, 2016])– and discovering less visible parts of the study areas, to using the amenities of the neighborhoods and interacting with passersby. Table 1.3 lays out the specifics of this phase in more detail.

4. Initial round of photographic fieldwork

This phase took place in June-July 2018, and essentially refers to setting up a photo database of the study areas. The goal was to capture some of the elements mentioned in the field observation: important landmarks, different sectors within the study areas, open spaces and pedestrian streets, the state of housing stock, businesses of interest, street art, etc.

5. Documentation of land uses

This phase took place in July and August 2018, and refers to the thorough mapping of land uses. The study areas were mapped in their entirety, and uses were divided initially into ten categories:

- residential
- urban manufacturing, artisan workshops, secondary sector uses (e.g. garages, warehouses)
- retail uses and offices
- hospitality and recreation (demarcation of uses pertaining to sex work)
- hotels and other tourism-related accommodation (incl. boutique hotels and STR ghost hotels)
- administration, education, healthcare, and banking
- cultural uses (e.g. museums, galleries)
- unfinished buildings, under construction
- abandoned and/or dilapidated building stock
- empty buildings, vacant ground floors

Multiple uses within the same building were demarcated (for example when ground floor use was different than of the rest), except for in the case of offices inside residential buildings (e.g. doctors’, lawyers’, accountants’, or notaries’ offices) not clearly visible from the street level. The method of documenting uses was either through observation and visual signs, or after asking neighbors and nearby business owners.

6. Questionnaires planning and preparatory/testing questionnaires administration

This phase refers to the initial design of structured questionnaires. Three templates of questionnaires were prepared (included in Annex III here), one for each group (residents, employees, business owners/managers), and for a brief period (15 days during August 2018) they were tested in the field in order to correct mistakes, inconsistencies, formatting weaknesses, repetitions, and biased questions. After completing the questionnaire, the respondents were asked about its quality, with their remarks being used in the finalization of the templates.

7. Structured questionnaires administration

In the main phase of questionnaires administration, which lasted three months (September to November 2018), 126 questionnaires were administered in total: approximately 20 per focus group and study area. Snowball was used as a sampling method, as it used extensively in gentrification research (see Smith and Holt, 2005; Murdie and Teixeira, 2011). It refers to choosing interviewees based on previous interviewees' recommendations and own networking in the study areas. All questionnaires were filled by the researcher in front of the interviewee, except for a small number filled directly by the interviewee in digital form.

Questionnaires were chosen to be strictly-structured and contain a relatively small number of questions (about 20) in order for the whole procedure to be quick –no more than 5 minutes–, as the respondent often answered while being busy (working, walking, sitting at a café, etc.). Moreover, research sought for honest and concise answers, something that would not be as easy had the procedure been longer and tiresome for the respondent. Physical interaction was chosen over online questionnaires for its capacity to carry more qualitative insight from the respondent to the researcher, and also for reasons of reliability. Most questionnaires were filled out in the context of a sit-down interview; however, in some cases, they took the format of "go-along interviews" (Carpiano, 2009). Then, the respondent (mostly residents) was answering the questions while walking. The benefits of this format are distinct, allowing for a better understanding of the respondent's spatial "experience of his/her local residential context" (ibid, p. 15), and an enhanced interpretative capacity of the respondent's view of the neighborhood, as he/she is "more vividly interacting with the environment and other people" (ibid, p. 16). The questions comprising each group's questionnaire are laid out in detail in the methodological part of Chapter 6, and the templates of questionnaires are provided in Annex III (in their original form, in Greek). Summarily, they address the respondent's view of the area, satisfaction from work/business, working conditions (if employee), staff composition and use of flexible labour (if owner/manager), perception of specific parameters related to gentrification (architectural/public spaces upgrading, changing of the area's character, residents/businesses' displacement, rent increase), and last, opinion on the impact of short-term rentals upon the area's character and working conditions/business performance.

8. Processing of fieldwork material and introductory findings

At this phase, existing fieldwork material from previous phases was processed at an initial level. This phase took place in the months between December 2018 and May 2019 and comprises the statistical analysis of the closed-ended questions in structured questionnaires, the taxonomy of the open-ended questions by key words/phrases, the analysis of notes kept during participant observation, and the mapping of documented land uses. The goal here was to produce some first findings that would guide research into the next phase. Essentially, that meant a cautious choice of key informants, as well as a thorough preparation of the issues that would be addressed during their interviews.

9. Conduction of semi-structured interviews with key informants

The questionnaires' phase (7) was subjectively limited to studying a 'snapshot' of the research area, as questionnaires had to be brief and concise, without many open-ended questions. Therefore, this phase sought to address the background of the research areas, in terms of identifying processes taking place at the city's scale and beyond, while retaining a temporal scope beyond the last few years. 17 interviews were conducted in total during June to October 2019. Key informants chosen on a basis of covering a wide spectrum of specializations marked as related to gentrification in the conceptual framework; their capacities are laid out in detail in Table 1.3. Summarily they include union representatives, real estate agents, public notaries, entrepreneurs in short-term rentals, former and current residents and workers at the research areas, and researchers. The sampling of informants was purposive and was based on longstanding contacts (acquainted before the process of fieldwork) or the network built during the questionnaires' administration. This type of sampling, although leading to a non-representative sample of respondents, allows for the selection of interviewees who are particularly knowledgeable on the topic under study, and is widely used in social research (Schutt, 2018). Based on the methodology of Longhurst (2003), interviews were conducted in a controlled setting, lasting 40-50 minutes in most cases, and comprised a blend of predefined and spontaneous follow-up questions. The full list of interviewees is laid out in Table 1.3 below.

Table 1.3: Key informants, capacity, and date of interview

Key informant		Sex	Capacity	Date of interview
1	Ioannis Xylas	M	*Real estate broker for GeoAxis*	20-Sep-18
2	Dina Gkogkaki	F	*Head of the Athens Shops and Offices Workers' Association*	19-Jul-19
3	Giorgos Hotzoglou	M	*Head of Panhellenic Federation of Workers in Catering and Tourism*	22-Jul-19
4	Giorgos Stefanakis	M	*Head of the Workers' Union in Catering, Tourism and Hotels for the Attica region*	01-Aug-19
5	Unnamed	F	*Current resident of Koukaki*	14-Sep-19
6	Machi Karali	F	*Notary public*	16-Sep-19
7	Unnamed	M	*Former resident of Koukaki*	21-Sep-19
8	Christina Karamanliki	F	*Head of the Association of Cleaners of Piraeus*	25-Sep-19
9	Giannis Balampanidis	M	*Post-doc researcher on short-term rentals in Athens*	25-Sep-19
10	Unnamed	F	*Owner of short-term rentals management company*	26-Sep-19
11	Unnamed	M	*Entrepreneur in short-term rentals market, Former resident in Koukaki and Kerameikos, Former bar worker in Koukaki*	26-Sep-19
12	Unnamed	M	*Former resident of Kerameikos*	01-Oct-19
13	Unnamed	M	*Current resident of Kerameikos*	03-Oct-19
14	Unnamed	M	*Current resident of Kerameikos*	06-Oct-19
15	Giannis Anagnostou	M	*Head of the Athens Builders' Union*	07-Oct-19
16	Unnamed	F	*Former bar worker in Koukaki*	10-Oct-19
17	Unnamed	M	*Super-market worker*	11-Oct-19

Interviewee with an expertise on labour market issues
Interviewee with an expertise on real estate market issues
Current or former resident of Research Areas
Interviewee with an expertise on short-term rentals market issues

10. Second round of photographic fieldwork

This phase took place during September and October 2019, and its purpose was to capture in photos the findings of participant observation, questionnaires, and interviews. Indicative points of interest included instances of labour intensification, conspicuous gentrification-related consumption, construction and renovation, pedestrian traffic related to short-term rentals, etc.; in general, glimpses of a gentrified landscape.

Table 1.4: Fieldwork outline

Type of fieldwork	Type of data	Method of analysis	Period of implementation
Participant observation	*Notes regarding foot traffic, clientele of businesses, working conditions for employees, tourist traffic, neighborhood characteristics*	Observation analysis	May '18 - October '18, June '19 - October '19
Documentation of land uses	*Land uses (residential, secondary, retail, recreation, culture, administration), Vacant/underutilized buildings and spaces*	Mapping, spatial analysis	July '18- August '18
Structured Questionnaires	*With 3 groups (residents, employees, business owners)*	Statistical analysis of close-ended questions. Thematic content analysis of open-ended questions.	September '18 - November '18
Semi-structured interviews	*Current and former residents of the research areas (5), workers at the research areas (super market, bars), notary public, real estate broker, owners/managers of STRs (2), post-doc researcher of STRs, union representatives (5)*	Narrative analysis on interview transcripts	June '19 - October '19
Photographic Fieldwork	*Open/green spaces, pedestrian streets, characteristic architecture, construction sites, aspects of economic base, topographical landmarks, street culture*	Photo database focused on visual promts relevant to the study objectives	June '18 - July '18, September '19 - October '19

The fieldwork, described in detail above and outlined in Table 1.4, constitutes the last step of the empirical part of the research at hand, which has been submitted in the Urban Studies journal by SAGE.

11. Synthesis of fieldwork material and production of findings

At this phase, lasting from November 2019 until February 2020, all fieldwork material underwent a second round of processing. Large parts of the semi-structured interviews were transcribed with special demarcation on distinctive quotes and highly informative and excerpts, the maps of land uses were finalized, new photosets were added to the existing ones, and new notes from participant observation enriched the previous. Eventually, many of the fieldwork observations were used in conjunction with secondary sources[3] to produce synthetic maps, which visualize gentrification loci and pertinent recreational zones, STR concentrations, prominent landmarks, businesses served as “urban pioneers” in the gentrification of the study areas, transit stations, and other places of interest. The completion of the above concluded the Stage of Fieldwork and Analysis of primary data (Step 10 in Table 1.1), and work conducted here produced the paper comprising Chapter 6. As mentioned above, this visualization was particularly crucial within the framework of an exploratory research.

Finally, in Step 11, the findings of primary and secondary analyses were revisited in order to synthesize the Integrative Chapter. The ultimate goal of this step is to address the three Research Questions posed in the introductory part.

Dissertation structure and Complementarity of chapters

The Dissertation at hand is composed by a seven (7) papers, most of which are already published, plus some which are reviewed by journals and currently under revisions by the time this part is being written. Specifically, three (3) constitute papers published in international scientific journals (Chapters 2, 3, 4), two (2) have been submitted to journals, have been reviewed, and are currently being revised (Chapter 6, Annex II), and another two (2) have been featured in proceedings of international scientific conferences (Chapter 5, Annex I). Each of these chapters/annexes includes its own introduction, theoretical framework, methodology, analysis (except for Chapter 2 and Annex I which are review papers), discussion/conclusion, and references, and can be read as a separate study.

As standalone papers, they incorporate a diverse spectrum of research subjects, from labour and short-term rentals markets’ performance to gentrification tendencies in specific areas, while also referring to different scales, from the neighborhood level to supranational. Nevertheless, the sum these papers builds, I believe, a solid argument in support of the reciprocal character of the relationship between gentrification and labour precarity. The specific purpose of each part of the Dissertation is laid out in Table 1.5 below.

Summarily, the Dissertation starts with the conceptual framework, continues with the study of domestic labour markets before narrowing down its focus to the region of Attica, subsequently it scrutinizes the short-term rentals market of Athens, and in the last part of the analysis, it presents the findings of the fieldwork conducted for two case studies, which refer to two inner-city neighborhoods of Athens. The Dissertation concludes with an integrative chapter which discusses all included papers in a wider context and synthesizes their results. Additionally, a series of annexes follows to supplement the material of the abovementioned chapters.

More specifically, the structure of the Dissertation is as follows.

[3] Mainly referring to data on Airbnb listings from www.insideairbnb.com here

Table 1.5: Chapters and Annexes of the Dissertation, main subject

Chapter/Annex	Subject addressed
Chapter 2	Theoretically discusses the relationship between gentrification and labour precarity
Annex I	Provides a tentative literature review, focused on the Greek context
Chapter 3	Thoroughly inquires the trajectories of labour flexibilization/precarization among domestic labour markets at the regional level
Chapter 4	Thoroughly inquires the trajectories of labour flexibilization/precarization vis-à-vis flows of investments, focusing on the Region of Attica
Annex II	Thoroughly inquires the trajectories of labour flexibilization/precarization in the urban labour markets of the two metropolitan regions in Greece
Chapter 5	Provides a brief analysis of the short-term rentals market in the City of Athens (municipality)
Chapter 6	Inquires gentrification and labour precarization in two neighborhoods of Athens
Integrative Chapter	Critically discusses and synthesizes the findings of research to address the Research Questions, towards a labour-sensitive theorization of gentrification

First comes a comprehensive conceptual framework (Chapter 2), in which the linkages between gentrification and labour precarization, the two 'pillars' of this Dissertation's approach, are discussed on a theoretical level. This chapter starts with a thorough literature review. The next part provides clear definitions of gentrification and flexible/precarious labour, in a way these concepts can be operationalized in the empirical analysis that follows. This chapter resumes with a brief history of the theoretical tools utilized to conceptualize the process of gentrification: the notions of capital switching and spatial fix[4]. In the main part of Chapter 2, the recursive relationship between gentrification and labour precarity is distinguished between weak and strong links, with the latter being further scrutinized. Thus, whilst the weak link refers to both processes coming about from intense capital accumulation (not necessarily overlapping in space), the strong link refers to specific instances where they are forming causal relationships with each other. The precarity pinpointed as part of these causal links is distinguished into gentrification-supporting and gentrification-fostered. The first category describes the centrality of flexible labour in construction works amid gentrified landscapes, and the displacement of urban manufacturing preceding gentrification tendencies. The second category describes the –emerging as integral– patterns of labour deregulation within gentrified landscapes in activities such as sophisticated retail and recreation, or short-term rentals, which either stem from intense competition amid vibrant spots, or from the diffusion of employers' practices within a context of economies of concentration. The chapter concludes with some brief remarks on the role of the urban workforce in processes of gentrification and redevelopment.

Ultimately, Chapter 2 serves as a conceptual framework upon which the subsequent empirical analysis is based upon; it sets the hypothesis which directs the Dissertation and addresses all three Research Questions by drawing insight from international examples. The parameters it establishes for identifying gentrification, flexible labour, and labour precarity, are operationalized in the empirical analysis that follows.

It must be noted that Annex I can be studied as supplementary to Chapter 2, being a tentative approach to the connection between gentrification and labour precarity, with a focus on the Greek

[4] Explained above in the Topic of research

context. While Chapter 2 constitutes the finalization of the conceptual framework, Annex I presents the initial literature review conducted for this dissertation, upon which Chapter 2 laid its foundations.

In Chapter 3, the scope of research turns to the regional and national levels. It starts by framing research with a review of the international literature on regional employment patterns, focused on the expansion of part-time employment. Then, it presents a categorization of the 13 Greek regions in regard to their productive specializations, assorting them into four groups: metropolitan, manufacturing, agricultural, and tourism-oriented. In the empirical part, total and part-time (with non-voluntary specially demarcated) employment patterns are analyzed. The analysis in this chapter suggests that a strong geographically differentiated connection between regional restructuring, specialization, and precarity, turned during the years of deep recession (2009-12) underemployment into an integral dimension of the contemporary flexibilization of work. Greek regions manifest this connection through various patterns according to their different specializations, albeit such shifts stem from the same underlying powerful mechanisms and seem to be more an outcome of regional competitive advantages than a result of the local mix of industries. Thus, the expansion of low-waged part-time work appears as almost horizontal. Nevertheless, within this context, metropolitan regions exhibit a remarkable precariousness in their urban fabric; as regional productive systems with high shares of tertiary service activities, they saw the rise of part-time work, which was further coupled with a dynamic expansion in sectors with almost zero levels of underemployment in the pre-recession period (e.g. construction and urban manufacturing). On the contrary, island tourism-oriented regions were found to respond to the rapid changes of the economic environment better than the other groups of regions, as services and commerce resisted recession in terms of total employment figures, but through an almost uncontrollable sprawl of underemployment, nonetheless. The manufacturing regions, following the country's orientation in low-cost tertiary services and labour-intensive low-scale production, lacked important information technology capacities and advanced financial and insurance services; the secondary sector there eventually retreated notably whilst widely flexibilizing. Last, agricultural regions continued their "traditional practices" of casualized labour; underemployment changes there derived from region-specific and territorial factors, despite the sway of national trends on total employment. Chapter 3 concludes by discussing three mechanisms diffusing underemployment across the domestic regional labour markets. First, the mechanism pertaining to productive-technological inadequacies, as highlighted by the manufacturing and construction industries. Second, the market-driven organizational dynamics and changing priorities encouraging the use of part-time waged employment at the expense of its full-time peer even by firms performing well under recessive pressures. Third, the changing institutional and welfare provisions as reflected upon post-2009 regulatory reforms, imposed by the common EU-IMF-Greek State memoranda, which horizontally increased employment precariousness in Greece.

Ultimately, this chapter serves as a first introduction to the trajectories of flexible employment forms in Greece. Implementing a sophisticated methodological framework comprising modern techniques and indices, it reaches some first conclusions about the evolution of working conditions in the country as a whole, while also marking the divergence of regions with different productive specializations. Moreover, it approaches the subject by distinguishing working reality to pre- and post-crisis. This way, it engages on a first level with how the recent crisis impacted upon the domestic regional labour markets (related to Research Question 2, as posed in the Research Statement), but most importantly, it thoroughly scrutinizes larger scales (national and region-specific trends) in order to lay the foundation for subsequent chapters to address their impact on the intra-urban level in terms of gentrification and labour precarization/flexibilization (Research Question 3, as posed in the Research Statement).

Whilst Chapter 3 discusses the characteristics of all Greek regions, Chapter 4 focuses on the metropolitan region of Attica while utilizing the national level for drawing insight. It starts with a literature review of approaches to the expansion of underemployment vis-à-vis business cycles and recessive pressures. In reviewing the literature on the impact of crises upon underemployment patterns, it gives increased attention to theorizations on the role of capital switching and spatial fixes. The empirical part starts with a study of the flows of capital from production to the built environment on national level. Then, the empirical analysis turns to the study of employment figures, with the capital metropolitan region of Attica being juxtaposed with the rest Greek regions in terms of waged employment and underemployment. Based on the previous two parts of the empirical section, the next part comparatively inquires the flows of investments in two particularly crucial sectors (constructions and manufacturing), with their respective underemployment shares. In the discussion part, the process of capital switching is addressed vis-à-vis labour turnover time. The analysis in this chapter offers evidence of a disrupted capital switching taking place in two separate periods during the years preceding the 2008 crisis. Specifically, between 2002 and 2007, a strong but short-term switch of fixed asset investment activity from productive activities to the built environment took place, with an one-year-long hiatus related to a post-Olympics stagnation in new projects led to two distinct stages (2002–2004, and 2005–2007) of this disrupted capital switching. Employment figures closely followed the consolidation of fixed capital formations, as the pre-crisis model had constructions as the most dynamic sector, reflected upon employment numbers and low levels of underemployment therein. The permanent termination of the abovementioned processes in 2007 led to the ending of a construction-sector-led cycle that had lasted more than 12 years. The sector of constructions in particular declined rapidly and produced large volumes of surplus labour, affecting the already segmented spatial fixes in heavily urbanized regions and causing devaluation and dismantling. Chapter 4 concludes with a series of remarks on domestic production models, the character of the Greek crisis, and the impact of labour restructuring upon the built environment of the capital Metropolitan Area of Athens. Significantly, the findings of this chapter point out that the Greek crisis has mostly been Attica's metropolitan-area crisis, without implying that other regions and the secondary metropolitan area of Thessaloniki were not severely affected. In the concluding section, it was first noted that recessive shocks hitting the capital metropolitan region during 2009-12 profoundly disrupted its pre-crisis spatial fixities, including gentrification projects.

Ultimately, this chapter serves as a study of Attica's regional labour market; it identifies the periods capital was rechanneled from industrial production to the built environment in Greece, and how that affected labour in the capital metropolitan region. In the process, it pinpoints the period of preparation for the Olympic Games as a pivotal time for Greek capitalism, and identifies the sectors of manufacturing and constructions as particularly crucial for the Greek growth model. On the one hand, by spotting the instances of capital rechanneled into the built environment on a national level, it helps the identification of gentrification processes as analyzed in Chapter 6; on the other, by analyzing the trajectories of manufacturing and constructions in terms of employment arrangements, it serves as a solid basis for the labour market analysis of Chapter 6. This way, it engages with all Research Questions posed in the Research Statement above. The multi-scalar approach in this chapter, which rescales and descales its scope at the same time is eloquently depicted in Figure 1.1 below.

It must be noted that Chapters 3 and 4 present an empirical analysis that is mainly based on data from 2005 to 2012, with the exception of data on GFCF (referring to 1995-2016). In order to avoid the pitfall of establishing an understanding of domestic labour markets upon obsolete data, the abovementioned chapters are supplemented by Annex II. This annex starts with a solid theoretical framework which explores the concept of the industrial reserve army as used in Political Economy and its geographically-driven approaches. The analysis that follows remains focused on the performance of regional labour markets in terms of underemployment expansion as in Chapters 3 and 4, but data are updated to cover the period 2013-16. In this Annex, Attica and Central Macedonia (the two regions of Greece designated as metropolitan in Chapter 3) are compared to each other and then with the other Greek regions. This way, the analysis seeks to reach conclusions on the performance of domestic labour markets which are mostly urban, and to identify where these lag compared to other types of markets (for instance, those oriented on tourism or agricultural activities). The findings of this part of the Dissertation point out that metropolitan regions, instead of being resilient and adaptive under recessive pressures, were found to be heavily struck by the crisis. Thus, the core-periphery gap did not refer to the resilient labour markets in the metropolises on the one hand, and the lagging ones in the periphery on the other, that the relevant literature suggests (see for example Martin et al, 2016). Instead, Greece's metropolitan regions failed to use underemployment so as to constrain unemployment, losing substantial parts of their productive capacity; post-crisis patterns illustrated the shift in many regional labour markets toward larger shares of waged underemployment, but as developed regions were found particularly vulnerable, a downwards convergence amongst Greek regions occurred. With the industrial (or more appropriately, metropolitan) reserve army expanding, especially in large urban agglomerations, workers became increasingly forced to accept precarious work, for fear of the alternatives.

Crucially, Annex II serves in extending the temporal scope of the arguments raised in Chapters 3 and 4. However, besides concluding that metropolitan regions were particularly vulnerable under recessive pressures, a remark raised in Chapters 3 and 4 as well, it furthered the analysis of Attica's intra-urban labour markets. Most importantly, its sectoral analysis unveiled additional sectors flexibilizing apart from manufacturing and constructions. For example, the emerging precarization patterns within hoteling, knowledge economy, and commerce, are closely associated with the gentrification-flexibilization nexus scrutinized in Chapter 6. Thus, the empirical analysis of Annex II secured the relevance of the whole research's findings, and moreover, provided additional remarks that were used in Chapter 6. This way, it contributed in addressing Research Questions 1 and 2 as posed in the Research Statement by shedding light upon sector-specific trajectories within Attica's labour markets and by scrutinizing the impact of recession upon them.

Following the analysis of regional labour markets, the Dissertation turns to the short-term rentals market in the City of Athens; this spatial focus upon narrower scales is also shown in Figure 1.1 below. More specifically, Chapter 5 starts with a literature review on the expansion patterns of short-term rentals and their impact upon housing markets in general. Then, it maps the expansion of peer-to-peer accommodation listed in Airbnb for the period 2015-18 in Athens. Following the identification of the most dynamic local STR markets, it scrutinizes the impact of short-term rentals upon long-term rent levels, before closing with a brief conclusions section. Although diverging from the previous two chapters in terms of subject, the market of short-term rentals is closely associated to the wider scope of the study. The brief analysis of this chapter tests parts of the hypothesis posed in the Conceptual Framework (Chapter 2), and specifically, those concerning employment in peer-to-peer accommodation businesses. Equally important, it sets the basis for the study of the two neighborhoods that follows in the next chapter; by shedding light upon the spatialities of the short-term rentals market in the City of Athens, it identifies both areas as particularly dynamic in this market albeit following asynchronous trajectories. In terms of findings, Chapter 5 suggests that the expansion of the short-term rentals in Athens had central historical landmarks such as the Acropolis Hill as "*ground zero*". Initial loci comprised districts of the historic center of Athens including Plaka, Kerameikos/Gazi, and Psirri, which –interestingly– had constituted gentrification loci already since the 1990s and early 2000s; this finding resonates with remarks from the international literature pointing out the appeal of gentrified neighborhoods as potential dynamic short-term rentals markets (see

Segú, 2018). Equally important, this chapter identified Koukaki's transformative process as exceptionally profound, with the neighborhood being among the first loci without prior gentrification tendencies; its rapid metamorphosis, as well as its lack of prior relevant tendencies, render the neighborhood as one of the most interesting cases across the Athenian central core. Beyond its findings, which justify the choice of case studies scrutinized in Chapter 6 (as both case studies appear as particularly dynamic in the STR market), Chapter 5 ultimately serves as an introduction to the research of gentrification in the City of Athens. This way, it covers aspects of Research Question 1.

Chapter 6 concludes the empirical analysis of the Dissertation and presents the findings of the fieldwork in two neighborhoods of central Athens: Koukaki and Kerameikos. More specifically, it starts with a theoretical framework which presents the latest approaches periodizing the waves of gentrification, with a special demarcation on the last, fifth wave of gentrification and its links to tourism-related activities and transnational capital. Moreover, it provides a brief background of the Athenian urbanization, identifying its longstanding characteristics and gentrification cases. It must be noted here that Annex I serves as supplementary material to this as well, as it reviews the documented cases of gentrification in the Greek capital. The chapter resumes with laying out the methodology of the fieldwork (the exact questionnaires' templates used are provided in Annex III, as well as a description of their respondents' sample in Annex IV). In the empirical analysis that follows, forms of gentrification-supporting and gentrification-fostered precarity are explored per economic activity; initially, the analysis engages with each area separately, but subsequently, it addresses some patterns emerging in both simultaneously. Supplementary to the analysis of this section, Annex IV (its second part) provides a thorough analysis of the structured questionnaires' findings. Additionally, Annex V provides additional maps on the land uses and the devalued housing stock, as well as the expansion of short-term rentals, for each neighborhood separately; these maps were not included in the paper comprising this chapter for reasons of size limit as indicated by the journal. After the analysis, the chapter resumes with a comprehensive discussion, where it delineates the "idiosyncratic Athenian gentrification", mainly addressing the city's diachronic unregulated urbanization patterns, the impact of the Olympic Games and the economic shocks of 2008/09, and the recent swelling of international tourism flows. The chapter concludes by widening its scope and discussing labour precarity as an integral dimension of gentrification beyond the context of the research areas.

Essentially, Chapter 6 tests the theorizations posed in Chapter 2, in which gentrification and labour flexibilization are possible to derive from common underlying mechanisms and that, as processes, are intrinsically intertwined on multiple levels. In doing so, it addresses Research Question 1 directly, scrutinizing the ways the two central processes of research (gentrification, labour precarization) interrelate. Its findings suggest a tight gentrification-flexibilization nexus consolidating in both Research Areas, covering a wide array of economic activities. Specifically, building trades were found to be profoundly casualized and flexibilized, with this process being crucial in the swift and low-cost adaptation of the built environment in the emerging character of these neighborhoods. Similarly, labour in food and drink services was found to be particularly precarious under the compound effect of fierce competition and the spill over of deregulated labour practices amid those gentrifying landscapes, which function as local economies of concentration. Additionally, work in the short-term rentals market was observed to be extremely precarious, regardless of the business's performance and profitability, which as a finding resonates with the remarks raised in Chapter 3 regarding the recalibration of full/part-time employment appropriation as a "market response" to recession. In this chapter, such instances of precarity within gentrifying landscapes are argued to be integral elements rather than an opportunistic conjuncture, as underemployment patterns therein variate from the respective ones in the wider city. Moreover, many interviewees during the fieldwork raised remarks to this direction, stating that the trajectories of gentrifying areas in Athens are inextricably connected to emerging labour characteristics that are neighborhood-specific.

Chapter 6 directly addresses Research Question 2 as well, going beyond the obvious connections between crises and labour devaluation, and researching the role of recession in the abovementioned connection. Specifically, it follows the mutations of local intra-urban labour markets during the years of deep recession in each neighborhood and highlights the contingency in the final outcome, as employment arrangements in Koukaki differ significantly from those in Kerameikos. Interestingly, each area is found to adapt its labour market to a readily available reserve army which is usually closely associated to the area. Thus, whilst the food and drink businesses mushrooming in Koukaki extensively utilize the precarious labour of young workers which simultaneously study in nearby universities, Kerameikos is heavily dependent upon the overwork of its marginal gentrifiers, whether in the in situ art scene which crucially contributes to the image of the area, or its equally important recreational base. In many cases, the same workers are occupied in both fields, as they engage in artistic activities while keeping a job at a café/bar which provides the main part of their income.

Last, Chapter 6 touches upon the issue of larger scales retaining an influence over narrower ones (Research Question 3). To do so, Chapter 6 uses the findings of all previous chapters of the analysis (Chapters 3-5) as a "Research Background", bringing them to the forefront of a geographically-grounded gentrification research. For instance, gentrification tendencies in these neighborhoods are engaged with as part of Athens's diachronic urbanization patterns and particularities; similarly, the explosion of short-term rentals market –providing a source of income for many parts of the hardly-hit middle classes– is not inquired independently of the dismantling of the city's economic base during the first years of recession. In this vein, the abundant reserve army of labour channeled into petty constructions to contribute to the emergence of new gentrification loci in Athens is addressed as an aftermath of the whole sector's post-Games downfall. In addition to the above, Chapter 6 also fully exhibits the multi-scalar character of the approach. In this sense, the transition from Chapters 3, 4 (analysis of regional labour markets) and 5 (analysis of short-term rentals market) to Chapter 6 (case studies), does not solely concern their research objective, but also the scale of their analysis. The larger scales of the former chapters ingrains the latter with a capacity to infer conclusions which transcend the locality of its case studies.

The Integrative Chapter, which concludes the main body of this Dissertation, synthesizes the findings of all previous chapters into a new discussion. It starts by briefly discussing some key methodological choices, and describing the main challenges faced during this research. Then, it proceeds with a narrative chronology following the trajectories of urbanization and labour markets' formulation in the context of Athens, while taking into consideration wider processes affecting Greece's productive structures. This narrative is divided in three parts. The first addresses the years preceding the economic crisis of 2008, starting from the first postwar decades up to the Olympic Games-dominated era of the 1990s and 2000s. The second focuses upon the turbulent years between 2009 and 2012, where domestic labour markets as well as urbanization patterns were deeply subverted by the potent economic shocks reaching the country a year after the emergence of the global economic crisis of 2008. The third part addresses the recent years of real estate recovery and rampant touristification – both phenomena closely associated with online platforms for short-term rentals. After engaging with the Research Questions on an empirical level, the chapter proceeds with a "Labour-sensitive Theorization of Gentrification" within the context of the EU South.

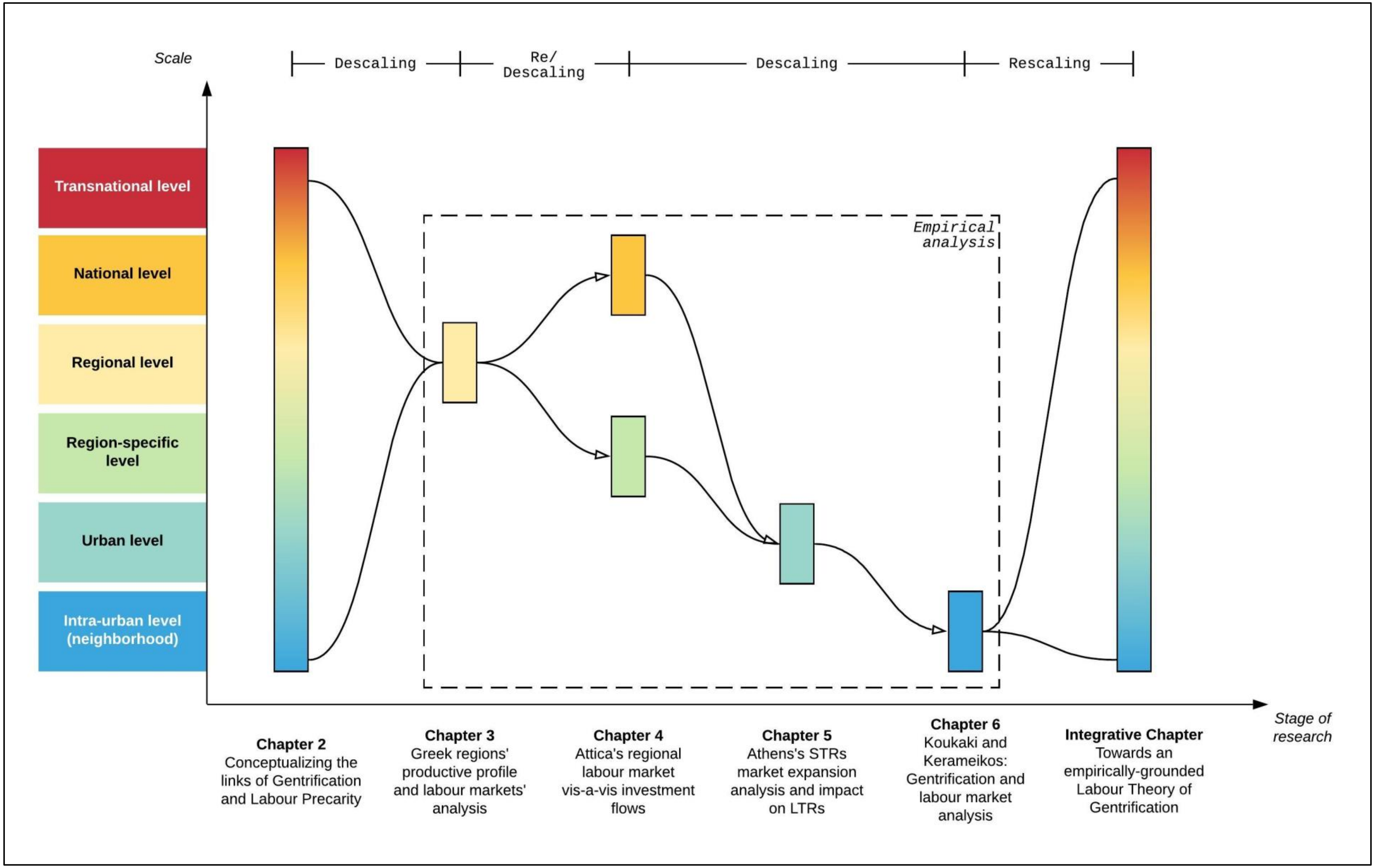

Figure 1.1: Scales of reference during the Dissertation’s chapters

There, findings of research as well as insight from the international literature are synthesized into formulating a coherent framework for research that places the heavy dependence on urban tourism as observed in many peripheral economies (see the remarks of Cocola-Gant, 2018) at its epicenter – this widening of scope is depicted in Figure 1.1. By attempting to achieve an ontological breakthrough towards a theory that perceives work as a central mechanism in gentrification processes, the Dissertation at hand aspires to inspire a novel research paradigm in Gentrification Studies that can be applied beyond the field of Urban and Economic Geography. Last, Chapter 6 closes by presenting some directions for future research.

Authorship of papers comprising Dissertation chapters

In all papers comprising this Dissertation my contribution was crucial. The only parts that do not constitute papers are Chapters 1 (introduction) and 7 (integrative), as well as Annexes III (questionnaires templates) and IV (questionnaires sample description and analysis); these are solely written by me. In Chapters 2, 4, 5, 6, and Annex I, I am the first author; there, I contributed to the largest part of their writing. In only two cases I appear as the second author: in Chapter 3, and Annex II. There, my involvement remains extensive. Below, I describe my contributions in each of these papers in detail.

In the paper comprising Chapter 2 I am the first author, and the co-authors are my supervisor, Stelios Gialis, and my first co-supervisor, Andrew Herod. As this work presents the conceptual framework of this Dissertation, my role in its writing was pivotal. I conceived the idea of linking gentrification and precarious/flexible labour, and conducted the literature review in its entirety. Subsequently, I concluded with a comprehensive definition of gentrification which draws influence from numerous approaches, and covers the process's economic, social, and cultural aspects. After being directed to study the concepts of capital switching and spatial fix, I contemplated gentrification as a spatial fix with labour-related characteristics; those characteristics were clarified in close co-operation with the two co-authors of this paper, after my initial suggestions.

In the paper comprising Chapter 3 I am a co-author (second), with my supervisor, Stelios Gialis as the first author and Anders Underthun as the last. Our collaboration with Research Professor Anders Underthun took place within the framework of the Research Program "Participatory action research to address un/under-employment at the local level (EEA GR07/3694)", in which I participated during 2016. In this paper, I collected and processed the data, and subsequently conducted the empirical analysis. I also devised the theoretical framework, and was involved in the writing of the discussion part. Some key findings of this paper occurred during the analysis I conducted; namely, the peculiar resiliency of the tourism-oriented regions despite their heavy dependency upon a single sector (hospitality), the tough character of the agricultural ones where the population has additional sources of income, and the unexpectedly profound vulnerability of the metropolitan, despite the concentration of capital therein.

In the paper comprising Chapter 4 I am the first author and my supervisor, Stelios Gialis is the only co-author. After being directed to study the concepts of capital switching and spatial fix, I synthesized the theoretical framework. Then, after consulting with my supervisor on the calculation of the Building Index used there, I collected the data and conducted the empirical analysis. After assessing the findings, I wrote the main part of the discussion. During the analysis, I observed that the share of constructions in Greece was particularly high even when compared to other economies of the Mediterranean EU; additionally, I delineated the capital switching periods, and examined the mechanisms behind each of them.

In the paper comprising Chapter 5 I am the first author, with my co-authors being my supervisor, Stelios Gialis, the post-doc researcher Georgios Alexandridis, and the Assistant Professor George Caridakis (the last two from the Department of Cultural Technology of the University of the Aegean). There, I conducted the literature review, composed the theoretical framework, and assessed the findings of the analysis to write the conclusions. The deeper factors behind each neighborhood's dynamism in the short-term rentals markets came of when I was studying the post-2010 trajectories of the central districts of Athens.

In the paper comprising Chapter 6 I am the first author, with all members of my three-part advisory committee as co-authors. This work constitutes the last stage of my research, concluded in 2020, hence, the reviewing process is still pending. As this chapter presents the findings of my fieldwork and tests the theorizations postulated in the conceptual framework, I was extensively involved in all of its parts. More specifically, I conducted the literature review and devised most of the theoretical framework, I collected and processed all data and mapped the findings, I conducted the empirical analysis, and last, contributed with most of the discussion.

The abovementioned papers constitute the main body of the Dissertation. Additionally, two more published papers are used as supplementary material. In 'Annex I' I am the first author, with my supervisor as the sole co-author. This paper presents the initial literature review I conducted for my Dissertation, and in collaboration with my supervisor, we wrote the conceptual framework that followed. In Annex II my co-supervisor is the first author, with me as the second and my supervisor as the last. As this paper was submitted to a journal earlier this year, it is still under review. In this, I updated all data, conducted the empirical analysis, and assessed the findings. I also contributed to the writing of the theoretical framework and the discussion.

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Chapter 2

Linking Gentrification and Labour Market Precarity in the Contemporary City: A Framework for Analysis[5]

Introduction

Two important processes are transforming the economic life and geographical structure of many cities in the Global North: gentrification and the growth of labour market precarity. Gentrification was first noted in the 1960s, as many working-class neighborhoods began experiencing an influx of middle- and upper-class residents. Initially a fairly marginal process, it has evolved into a global phenomenon, incorporating a widening array of land uses and activities. Whereas much early research focused upon understanding the mechanisms driving gentrification and the decision-making processes of middle-class home owners and of real estate speculators, with its intensification and geographical expansion in recent decades new perspectives have been added to the corpus of research, including explorations of how public investments in mass transit (Bohman and Nilsson 2016; Zuk et al. 2017) and efforts to create more ecologically sustainable urban environments (e.g. Checker 2011) have led to working-class residents' displacement. For its part, labour market precarity has also been growing in many Global North cities (and elsewhere), leading to the emergence of what some have labelled the "gig economy". Hence, whilst workers engaged in many types of work previously enjoyed relatively stable full-time employment that was well paid (and often covered by a union contract), today workers in these same sectors are ever more faced with short-term work arrangements and face much greater economic uncertainty.

In an effort to contribute to analyses of how the urban landscape is being transformed in many post-industrial/"post-Fordist" cities by these two processes, here we want to outline a way by which we can connect gentrification as a spatial fix for problems of capital accumulation with the rise of precarity in labour markets as an economic and organizational fix for such problems. To do so we draw inspiration from Smith (1979, 1996), who, following from Harvey's (1978) research on how capital from the sphere of production (the "primary circuit" of capital) is often speculatively invested into the built environment (the "secondary circuit") through processes of "capital switching" during economic crises, postulated that gentrification and the functioning of labour markets are linked. Although Smith has deeply influenced gentrification theory, his suggestion that there are connections between the restructuring of labour markets and of urban spaces has remained rather underdeveloped, with few exceptions (e.g. Curran 2007; Hum and Stein 2017; Marcuse 1989; Sassen 1997). Our paper, then, is an attempt to address this lacuna.

In developing a framework for such a connection, we seek to make greater linkages between the fields of labour geography and urban geography. Specifically, we suggest that there are two ways in which labour market precarity and gentrification are linked. The first (what we term a "weak" link between the two) addresses gentrification and precarity as concurrent processes in response to crises of accumulation in the primary circuit, but processes that can be somewhat spatially independent of one

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another—precarity has emerged in many non-gentrified spaces whilst gentrification can be carried out by well-paid labourers with stable work options. In the second (what we term a "strong" link), though, both gentrification and precarity arise due to crises of accumulation in the primary circuit but they are much more tightly interconnected. Specifically, we postulate that in many instances the process of gentrification has become decidedly reliant upon the labour of ever more precarious workers. Furthermore, the new urban spaces which gentrification creates serve as fertile grounds for the kinds of economic activities that are emerging in the post-industrial economy and which are replete with precarious work arrangements—these spaces are often home to flexible services and creative/knowledge firms that rely upon gig-economy practices and to flourishing peer-to-peer, short-term rental markets, facilitated by companies like Airbnb and HourlySpaces. They can also displace longstanding inner-city manufacturing remnants, thereby further consolidating precarity.

The paper is structured as follows. First, we outline some of the foundational work theorizing gentrification, so as to provide a context for our own contribution. Second, we connect gentrification and labour market flexibilization as two responses to crises of capital accumulation. We end with a brief conclusion.

Literature review

Early efforts to theorize Gentrification

Ruth Glass's (1964) study of how the influx of middle-class professionals into working-class neighborhoods across London was transforming their character is generally viewed as the first work to popularize the term "gentrification". However, the number of papers published on this phenomenon in the years following was small and mainly engaged with gentrification as a back-to-the-city movement of a new middle class (Pattison 1977), which was driven by a desire for inner-city living and an aesthetics-based inclination towards architectural preservation (Fusch 1978). Gentrification was typically approached through spatially limited case studies in specific neighborhoods of London and a handful of other global cities, like Boston and Washington, DC. Significantly, most researchers at the time suggested that gentrification was a marginal process and an insignificant force reshaping urban landscapes (Whyte 1980).

Arguably, it was David Ley (with a presentation at the 1978 Association of American Geographers conference, as later developed [Ley 1980]) who first gave some theoretical coherence to these disparate early demand-orientated approaches. He tied gentrification's growth to the transition to post-industrial capitalism, a transition marked by the growing market power and social capital of a white-collar labour force (Ley 2003). He argued that four conditions were crucial to driving gentrification: demographic changes; shifting housing market dynamics; the development of new urban amenities (rendering downtown living more attractive); and transitions in the economic base of cities. Following from this, the "demand-side" of the literature expanded its conceptual scope through notions such as the "artistic mode of production" (Zukin 1989:178) and the concept of "aesthetic disposition" (Bourdieu 1987), in which various cultural producers (artists, musicians, writers, etc.) were seen to drive gentrification to create an artistic urban "habitus" (Ley 2003). This eventually led Caulfield (1989) to suggest that gentrification was creating an "emancipatory inner-city" as middle-class people refashioned the built environment into a place for greater cultural expression in reaction to the monotony of homogeneous and "alienating" suburban living.

Neil Smith's (1979) approach came as a response to neoclassical models but also to demand-driven accounts. He saw gentrification as an expression of uneven urban development, propelled by deep forces of capitalist accumulation. Such forces, he argued, found their expression in the process of inner-city capital devaluation vis-`a-vis capital investment in other parts of the city. Hence, the development of the inner-city during periods of 19th and early 20th century industrialization had created a landscape which fixed capital "in place" in certain spatial configurations at those historical moments. However, although these spatial fixes initially proved fruitful they became increasingly constraining over time. In the early post-war period these constraints were largely overcome through spatial expansion (i.e. suburbanization) rather than in situ investment—what Walker (1977) termed the "suburban solution" to accumulation crises. This geographical mobility of capital towards the suburbs generated "rent gaps" in the urban core. Significantly, these rent gaps proved attractive in the 1970s for capitalists looking for investment opportunities, as the crisis of Fordism provided a catalyst for the switching of overaccumulated capital from production to the built environment (Harvey 1978). This historical conjuncture, Smith (1996:85) argued, confirmed the "somewhat countercyclical nature of gentrification vis-a`-vis long swings in the economy and economic crisis prior to the late 1980s".

The—often polemical—debates between these two approaches reflected a broader, ideologically infused clash within urban geography (Hamnett 1991). However, they contained elements of each other from the start. Hence, Smith (1979) accepted the partial importance of middle-class cultural and economic desires whilst Ley (1980) acknowledged that class relations and wider economic forces shape individuals' capacity to make choices about where to live. Furthermore, the division of labour across urban space was a central element in both approaches, as both groups recognized that the same kinds of forces under capitalism that shape land use with regard to housing also shape land-use patterns for other functions through the medium of ground rent, even if they placed different degrees of importance upon this. Marcuse (1989) subsequently enriched this discussion, suggesting that commercial activity in central business districts spiked due to the tertiarization of the economy, which increased demand for professional/managerial positions and so attracted middle-class office workers to inner-city neighborhoods in which working-class people had resided for decades. At the same time, other scholars ascribed the influx of the "new" middle classes into gentrifying areas as resulting from their work ethos and preferences, arguing that highly diverse and vibrant habitats tend to attract the type of "creative precariat" (De Peuter 2014) that works in many of the growing sectors of the "new economy" (Thrift 2008; Zukin 1987).

The Downplaying of Gentrification and the Move Away From Historical-Geographical Materialist Perspectives

After a decade of rigorous debate, the recession of the early 1990s seemingly took the wind out of gentrification's sails (Bourne 1993). Myriad borrowers were stuck with mortgage liabilities exceeding the market value of their holdings and massive corporate lay-offs—particularly in the US, but elsewhere too—hit especially those young professionals who constituted the "gentrifier class" (Lees 2000). In fact, a "de-gentrification" narrative even came about that frequently overlooked displacement and disregarded social injustice caused by the process (Hamnett 2003; Slater 2006). The term gentrification was often avoided due to its negative connotations and was replaced by more "neutral" terminology—"urban renaissance", "urban renewal", "urban rehabilitation", etc.—as multiple master plans, official documents, and studies lauded how gentrification could promote social mixing, the building up of social capital, the enriching of civic culture, the furthering of environmentalism, and greater urban sustainability and livability to the benefit of working-class households, a perspective which MacDonald (2014:250) has called the "urbanization of trickle-down economics".

By the end of the 1990s, however, these de-gentrification claims diminished as cities witnessed a spurt of "post-recession gentrification" (Hackworth 2002). Indeed, gentrification was becoming so widespread that it was suggested that it had now become a generalized urban policy and its frontier expanded both internally (across the city) and externally (across multiple geographical contexts) (Smith 2002), as it metastasized from downtown to peripheral parts of the city, from urban to non-urban space, and from global/large cities to smaller ones. Simultaneously, a more intensified form of it ("super-gentrification" [Lees 2003]) was returning to its initial loci in global cities like London, San Francisco, and New York to meet the demand of an upper class of wealthy white-collar workers in the financial services, real estate, and similar sectors. Even though several critical analyses categorized gentrification as an element of post-industrial or neoliberal trends, fueled by state interventions and enacted by large corporate developers (Davidson 2007), they tended not to engage with the historical-geographical materialist approaches that saw gentrification in terms of capital switching (Charney 2001) (exceptions are Wyly et al. [2004], who drew upon notions of the spatial fix to explore racialized mortgage-backed loans, and Slater [2017], who identified planetary scale rent gaps by stressing the importance of secondary circuits of accumulation).

Whilst gentrification was proceeding in many advanced capitalist countries, some in academia and elsewhere praised the revival of small-scale and decentralized production networks that had emerged in parts of southern Europe during the 1970s (e.g. in the so-called "Third Italy"), seeing them as a basis for a renewed capitalism. Sabel and Piore (1984) most epitomized such hopes, seeing "flexible specialization" as a good model upon which to develop a more balanced production system that would overcome the problems inherent in large-scale Fordist production. Significantly, flexible specialization became a central element in the economic base of gentrifying landscapes and was even perceived as carrying an emancipatory capacity for workers (Caulfield 1989), providing revitalized spaces and inner-city environs in which artisans, artists, and independent workers of the creative industries could live and produce their products (Mathews 2010). However, flexible specialization was soon "hijacked" by many firms that simply saw it as a way to gain a more tractable workforce that could be hired and fired more or less at will (Harvey 2017). Despite theoretical developments in understanding both the spread of gentrification and the growth of labour flexibility, the connection between these two, however, was not extensively discussed.

The Contemporary Growth of Gentrification and the Revisiting of Labour-Related Issues

With gentrification becoming a widespread urban redevelopment strategy in the 2000s, several issues came to the fore. First, in reaction to the downplaying in the 1990s of much of gentrification's negative aspects, a voluminous literature emerged examining issues of social injustice and class-related displacement caused by gentrification (Wacquant 2008). Second, issues of environmental sustainability and the role of green urbanism—a focus of much governmental policy-making— were extensively scrutinized (Hamnett 2003). Although efforts to create ecological sustainability and "green" cities had often presented gentrification as a mechanism for banishing urban squalor and establishing "actually existing sustainabilities" (Curran and Hamilton 2012), for commentators like Smith (2002:99) they were little more than window dressing to hide what had become a "consummate expression of neoliberal urbanism", as gentrification expanded into uncharted territories and "neoliberalized" space (see Davidson 2007; Wyly and Hammel 2005).

As the phenomenon expanded to Global South cities, another question raised was whether the theories developed to explain it within the context of Global North cities could be applied elsewhere (Maloutas 2012). Moreover, voices coming from postcolonial theory expressed concerns about the

"Westernizing" of Global South academia and the enforcing of a Global North academic hegemony (Cartier 2017). These voices argued that, since local production hubs and labour control regimes (together with housing markets) operate so differently in different places, research on urban transformations must be more culturally and geographically situated (Ghertner 2015; an argument also postulated by Wilson [1991] several years earlier). Nevertheless, the gentrification literature grew significantly to offer insights about the growth of Western-style developments in non-Western contexts (see Atkinson and Bridge 2005). China's urban explosion in particular was central in disseminating Western gentrification theory and terminology (Shin 2016), even though in many instances urban regeneration projects were little associated with gentrification (Ley and Teo 2014). Likewise, the significant restructuring of urban space in several Global South cities propelled by global EXPOs and athletic events such as the Olympic Games, with Beijing and Rio de Janeiro being prominent examples, was often interpreted as a form of gentrification (Smith 2010; Watt 2013). Certainly, claims of gentrification in many Global South cities may have been overblown. Nevertheless, the process did spread beyond its places of origin in older Global North cities. If gentrification is seen as a form of spatial fix, one consolidated and reproduced through transforming housing and labour markets (Smith 1996), then this expansion beyond its initial geographical loci should not have been unexpected, especially since mortgage and real estate capital flows have acquired increased geographical range in the past few decades (Slater 2017; Wyly et al. 2004).

Eventually, a small number of scholars did raise the issue of labour amid gentrifying landscapes, drawing inspiration from past research. Marcuse (1989) and Smith (1996) both had explored linkages between the operation of housing and labour markets, whilst Zukin (1987) and Ley (2003) argued that the working ethos of specific middle-class segments played a central role in the shaping of urban redevelopment, and Rose (1984) detailed some of the mechanisms of labour's social reproduction in the inner-city, especially amongst marginal groups involved in gentrification. Perhaps most significantly for our purposes, Sassen (1997) had investigated the informalization of urban work and the "need" for businesses to be flexible as they increasingly subcontract parts of their production to low-cost operations, such as sweatshops or household production. Moreover, she suggested that the process of gentrification itself can rely upon informal activities in the fields of building renovation and small-scale new construction. Then, for their part, Van Criekingen and Decroly (2003) remarked that the connections between what they called "marginal gentrification" and the growth of labour market flexibility had been underanalyzed, although they failed to provide a mechanism by which to link the two, whilst Preteceille (2010) examined the precarious employment reality many "cultural producers" face in gentrifying neighborhoods. Echoing Sassen's remarks, Curran (2007) pointed out that pressure to turn industrial uses into residential ones as part of the gentrification process can facilitate the increasing informalization of work. Lastly, Stein (2015) built a compelling argument concerning how precarity and gentrification reinforce one another within a feedback loop (without one clearly causing the other), suggesting that labour precarity forces an increased residential mobility of vulnerable urban dwellers, who may move repeatedly because they must change jobs more frequently. Such recurring mobility, intensified by gentrification tendencies in working-class neighborhoods, provides landlords the opportunity to more regularly raise rents (especially in cities where rent control laws typically limit increases during the occupancy of the same tenant), thereby reinforcing gentrification. Finally, Hum and Stein (2017) explored urban redevelopment in several Chinese neighborhoods in New York City, arguing that whereas in the past these neighborhoods had been places where Chinese surplus workers could be absorbed, after the 2008 financial shock they increasingly became places where Chinese surplus capital could be absorbed in the built environment, as overseas Chinese investors looked for places to park their money.

Our paper, then, draws upon this prior work but seeks to advance it by providing a way to clearly make causal connections between precarity and gentrification, especially within the context of capital that is switched—seeking new investment opportunities—to the secondary circuit. In so doing, we argue that gentrification represents a spatial fix to problems of overaccumulation, but one that has become increasingly reliant upon labour market precarity as an organizational fix to problems of overaccumulation.

Conceptual Framework: A Mechanism for Linking Gentrification and Labour Market Restructuring

Definitional Matters

Having outlined a little of the literature concerning the theorization of gentrification, in this section we lay out a way to connect gentrification and growing labour precarity. First, though, we address some definitional issues which are important in order to avoid conceptual overreach. Hence, with regard to gentrification, although it is not the only possible outcome of inner-city rejuvenation, many renewal projects do tend to promote it, such that any and all types of neoliberal urbanism are sometimes viewed as examples of gentrification. As a way to particularize the process definitionally, however, we suggest that gentrification must exhibit—in varying degrees—four features: the economic improvement of the built environment to something closer to what planners view as its "highest and best use"; the transformation of the physical environment through significant capital investment (e.g. renovating/removing run-down buildings); an abrupt shift in the social character and culture of the affected neighborhood; and the displacement of people who have traditionally lived in the neighborhoods being gentrified by a new class of individuals, typically of a higher socio-economic status.

Much as gentrification is often taken to refer to all forms of contemporary urban redevelopment, the growth of any type of labour flexibility is frequently taken to be an instance of mounting work precarization. However, a clear distinction between labour flexibilization and precarity is needed if we are to link changing labour market characteristics to crises of accumulation. Thus, flexible labour arrangements are those which exhibit malleability in matters such as working time, contract duration, place of work (e.g. employees telecommute rather than work in a central office), or employment relationships (e.g. workers are employed as independent subcontractors rather than directly) (Katz and Krueger 2016). Precarity, on the other hand, refers to vulnerability, with workers lacking economic security either currently (e.g. because of their very low wages) or in the future (e.g. because their jobs offer no retirement plans). Precarity, then, does not so much speak to the nature of a working arrangement but to the wider social conditions of the workforce (Strauss 2017). Certainly, flexibility and precarity can be related—part-time workers frequently receive fewer benefits and lower overall incomes than do their full-time confederates. But flexibly employed workers are not necessarily precarious ones (lawyers who work for themselves may only work part-time, though may be quite economically secure) whereas precarious workers are not necessarily flexibly employed (full-time workers may face significant economic precarity due to their low wages). It is crucial to make this distinction, though, for two reasons. First, there has been a growing criticism in recent years from some quarters (e.g. Moody 2017) that those using the term "precarity" have overstated its prevalence because they have often defined it in vague terms (although, significantly, Moody himself does suggest that working conditions internationally have indeed become more precarious, if not to the extent that some others suggest). Second, and more specifically related to our own work here, the labour force involved in gentrification's realization has become not just increasingly flexible in recent years but, more importantly, increasingly precarious, as building trades capital has sought to squeeze ever greater surplus value out of its workforce as a way to address endemic crises.

Capital Switches, Spatial Fixes, and the Growth of Precarity: A Brief History

The nature of gentrification has changed significantly since the 1960s and 1970s for one basic reason: whereas initially it was largely driven by informal local networks of small-scale building owners and financiers (e.g. local banks) who dominated local housing markets (Anderson 2014), today global financial firms, investors, and lenders have increasingly come to play central roles in the process. A key reason for this was the "shift in gravity of economic activity from production (and even from much of the growing service sector) to finance" (Foster 2007:1) in the 1970s and 1980s. Several factors played a role in this growing financialization of Western capitalism and real estate markets in particular, including the crisis of manufacturing in North America, Australasia, and Europe (especially after the 1973 OPEC oil price rise), the deregulation of the financial sector in many countries (most emblematically that of the New York Stock Exchange in 1975 and the London Stock Exchange's "Big Bang" in 1986), and high interest rates in the USA and Britain which attracted billions of dollars of globally circulating capital to London, New York, and other hubs of global finance (see Herod 2009:188–190 for more details). The new era of financialization has been marked by the switching of huge quantities of capital from the primary to the secondary circuit (Hackworth and Smith 2001), a switching which highlights how the production of urban space has been an important element in efforts to solve crises of accumulation (Harvey 1978), surpassing industrialization as the principal means of making profits in many places. For instance, commercial banks often grant mortgage loans, at least in the expansionary stages of economic cycles, simply as a form of "financial lubrication" (Wyly et al. 2004) that allows real estate capital a partial autonomy from "materially based rhythms of construction activity" (Beauregard 1994:729). However, in the process they help create the kinds of housing bubbles which unleashed the 2007 Global Crisis (Gourzis and Gialis 2019; Mayer 2011). The prominence of real estate activity in capital reproduction, then, has connected local neighborhoods to transnational capital markets to an unprecedented degree and city building seems to have turned into an end in itself, occupying a central place in the global economy.

As Harvey (1978) has argued, successive capital switching cases in response to economic crises represent particular spatial fixes which leave their mark on the urban fabric in distinctive ways. However, whereas a specific spatial fix can help solve accumulation crises at one historical moment, over time it may prove increasingly constraining, such that landscapes may subsequently have to be demolished so as to break free from the spatial restraints that they now impose. This means that the need to create different spatial fixes as solutions to new accumulation restraints can necessitate urban restructuring even when it is actually not needed in terms of the use value of various buildings and other physical infrastructure, which could continue to serve the interests of those utilizing them (Gotham 2009). In similar fashion, because spatial fixes fix in place at the moment of their implementation the social relations within which they were created, efforts to transform the organization of work may also necessitate transforming the built environment as, say, manufacturers find that factory layouts that once facilitated production are increasingly constraining as new technologies or ways of working develop. Given, then, that the physical architecture of buildings reflects the purposes for which they were constructed but then shapes what can subsequently be done in them, whilst the layout of the city more generally reflects how it functions at particular times but also then shapes how it can subsequently operate in an ongoing socio-spatial dialectic, the spatial fixes which capital creates to (temporarily) solve problems of accumulation have embedded within them specific labour-related characteristics.

If switching investment into the built environment is one way for capital to address accumulation crises, a second has been through unleashing a violent offensive upon labour as a way to extract greater surplus from it. Ronald Reagan's 1981 firing of over 11,000 air traffic controllers is often seen to have begun the contemporary assault on the US labour movement, whilst the Thatcher government's efforts to break the UK's National Union of Mineworkers and the Howard administration's WorkChoices legislation in Australia were likewise efforts to undermine organized labour's power to resist capital's predations. More generally, moves towards greater flexibility have encouraged the growth of precarity in order to improve corporate profitability. Hence, many employers have encouraged both numerical flexibility (hiring and firing workers as needed) and functional flexibility (through teamwork, job rotation, multi-tasking etc.). Overall, across the industrialized world and beyond (see Herod and Lambert 2016 for details) employers have replaced secure work with insecure work, with the most extreme example perhaps being the rise of "zero-hour contracts" in which workers are not guaranteed any work but nevertheless must be permanently available (Gialis and Leontidou 2016).

Linking Gentrification and Precarity: A Conceptual Framework

Above we have suggested that gentrification can serve as a spatial fix to crises of accumulation whilst precarity provides an economic and organizational fix to them. In what follows we make some explicit connections between these two types of fix. In so doing, we distinguish between a "weak" link and a "strong" one. The "weak" link simply refers to the fact that both phenomena have emerged out of intense capitalist restructuring and so are coincident in time, though sometimes not in space—not all gentrifying areas have seen the growth of precarity whilst labour market precarity is occurring in many places that are not experiencing gentrification. We focus, though, upon what we are calling the "strong" link, wherein gentrification and labour precarity buttress one another.

There are several theoretical connections that can be made concerning how and where gentrification and labour market precarity feed one another. For one thing, in a context where cities and regions compete for global capital and high-skilled labour, many local governments see the provision of enticing and exciting built environments in central urban areas to attract new entrepreneurial talent into their midst and relaxed labour regulations to attract circulating capital and high-end creative economy jobs as two sides of the same coin, both important for these cities' futures (Florida 2014). This has facilitated both growing gentrification and a growing flexibilization. Flexibilization emerging in gentrifying areas can be either "gentrification-supporting" (i.e. it is integral to how gentrification unfolds as a spatial fix for problems of primary circuit overaccumulation) or "gentrification-fostered" (i.e. it is facilitated and boosted by the new gentrified spaces). Both, though, are part of the "strong link" we are identifying—in the former the process of gentrification has become increasingly reliant upon growing labour precarity whereas in the latter gentrification helps transform various urban spaces into arenas of flourishing precarious work.

With regard to gentrification-supporting precarity, it is important to recognize that the investments in the built environment that capital makes—whether as part of a switch from the primary circuit or not—are typically fairly long-term ones, as it may take years for investment in fixed assets like railway lines or housing to pay off (Harvey 1978). Competitive pressures, however, lead capital constantly to seek to reduce its turnover times so as to avoid limiting opportunities to switch investment into other sectors and/or places and, thus, to avoid unpredictable outcomes. Hence, investing in a building for a long period of time opens an investor up to multiple potential hazards (such as the surrounding neighborhood deteriorating over the years and devaluing one's property). One way of minimizing risk is by reducing the amount of capital sunk into a particular project. This can be done by cutting labour costs through, for instance, subcontracting, outsourcing, and downsizing in the construction sector (Gotham 2009). There are myriad examples of this occurring in recent decades. Hence, in Spain the proportion of construction workers who held temporary contracts doubled between 1987 and 1991 and continued to rise in the 1990s, such that by 1999, 61.7% of the country's 1.5 million construction workers were temporarily employed (compared with 32.7% of workers overall) (International Labour Organization 2001:19). By 2000, nearly 80% of South Korea's construction workers were working as either day labourers or temporary hires (International Labour Organization 2004). In the US, the share of construction workers who were temporarily employed jumped 46% between 2003 and 2014, and in 2014 nearly 40% of construction workers had non-traditional work arrangements, compared to 17.2% of workers in all industries (Center for Construction Research and Training 2018: Chapter 21).

Deskilling is another way in which labour's cost can be reduced. Hence, the introduction of labour-replacing technologies (such as automatic wall-plastering machines) and the use of equipment that continually scrutinizes and adjusts workers' performance (like microprocessors on wrenches that automatically monitor the elongation of bolts and can be programmed to achieve the optimum bolt tightness [Paulson 1985]) not only reduce the amount of time it takes to complete certain jobs but also mean that skilled workers can be replaced with less-skilled, cheaper ones. Construction companies have also increased their use of pre-fabricated materials to achieve the same outcomes (Millman 2004).

Such efforts to deskill and cheapen labour have gone hand-in-hand with breaking labour unions in the construction trades. In the USA, for instance, in the mid-20th century building trades unions were able to secure high wages and uniform standards. However, in the past three decades the industry has undergone a dramatic transformation as union membership has declined, wages have dropped, and there has been a shift towards the use of Construction Project Management techniques in which professional project managers oversee project planning, design, and construction so as to control a project's time, cost, and quality. The result has been that whereas in 1967 construction workers earned, on average, more than those in petrochemical refining, steel, and vehicle and aircraft manufacturing, by 1997 they earned less—between 1973 and 2002, average hourly earnings for construction workers declined from US$25.27 to US$20.85 (17.5%) (Erlich and Grabelsky 2005). Similar shifts can be found in other countries—in Australia, for instance, the fraction of trade union members in the construction industry declined from 42% in 1992 to 26% in 2000, a 40% drop in just eight years (Hendrickson and Au 2008). In many Global North countries there has also been a shift in labour force demographics as the industry has increasingly come to rely upon low-paid immigrants and underground economy practices.

Significantly, different types of flexibilization processes are typically at work in different segments of the construction industry. Hence, whereas large-scale industrial and commercial construction companies may have the capital to purchase expensive labour-saving machinery, smaller-scale builders may not. Concomitantly, though, in such large-scale projects it is often not practical to have work done by part-time and/or undocumented workers because of the level of skills required to build large structures and because such projects may be under greater government and public scrutiny to follow labour and residency laws. By way of contrast, in smaller-scale commercial and residential construction, where budgets are smaller but there is often less government oversight, it is typical—at least in the US (Torres et al. [2013] provide a case study of Austin, Texas)—to see jobs dominated by non-union workers and/or immigrants, a significant proportion of whom may be undocumented. At the same time, whereas carpenters or bricklayers working on sizeable projects may be directly employed by large construction firms, those working for small-scale developers are often required to classify themselves as independent contractors, which makes them more vulnerable and often leaves them without pension contributions. Many of them also work part-time or temporarily, because the people for whom they labour may not be large enough operators to always have work for them.

Landscapes characterized by small-scale gentrification activities, then, frequently absorb high volumes of flexibilized and informal labour in renovation, alteration, new construction, and general installation—tasks that are routinely carried out by a coterie of informal workers, either those who are unemployed/underemployed from within the neighborhood and who might be given jobs like demolishing interiors of buildings or hauling building supplies to sites or, perhaps, immigrant communities from other parts of the city who specialize in painting or hanging sheetrock/plaster board. Gentrification of this type is labour-intensive, relying upon the availability of an extensive reserve army of underemployed workers (Sassen 1997). Consequently, it tends to retain a counter-cyclical character vis-à-vis long swings of the economy, with its resilience leaving it mostly unaffected by stagnation periods in larger-scale construction which, as a sector, is often deeply subjected to business cycles and economic swings (Beyers 2013). The result is that, in many cases, "marginal gentrification" continues even as larger-scale gentrification projects are stalled by market downturns (Van Criekingen and Decroly 2003)—in other words, the nature of the labour force and the conditions under which it works play key roles in facilitating gentrification.

If gentrification-supporting labour market precarity is one aspect of the link between the two phenomena under investigation, the other is what we are calling gentrification-fostered precarity. Whereas the former facilitates gentrification, the latter occurs after neighborhoods have begun to gentrify, as new types of employment relationships develop in the transformed built environments. Gentrification, then, may not only rely upon precarity but can also be a generator of it. Hence, for higher-end residential and entrepreneurial service-sector landscapes to emerge, gentrification often must dislodge uses such as long-standing manufacturing, either through developers encouraging local governments to rezone properties or through driving up property values and, hence, local land taxes to the point whereby many manufacturers cannot survive in situ. The result is that, even if they are not loss-making, such manufacturers are often displaced from gentrifying neighborhoods and forced to lay off workers (Curran 2007)—the upgrading of loft spaces in central Manhattan during the 1980s, for instance, put such pressure on garment manufacturers who had occupied these spaces since the 19th century that many closed (Herod 1991). In turn, laid-off blue-collar workers may have few options except to join the ranks of the precariat (Marcuse 1989; Standing 2011), often leaving the affected areas in search of more affordable housing and work elsewhere and, in the process, helping to form hubs of poverty and precarity in peripheral parts of the city (Sassen 1997).

Gentrification, then, has displaced much manufacturing that was historically located in many cities' urban centres and employed workers under standard work characteristics. At the same time, though, it has created spaces for more bespoke service and manufacturing activities to emerge in many places as a central part of the post-Fordist economy. Many of these—often small-sized—businesses depend for their success upon the niche markets opened up in neighborhoods transformed by gentrification (Curran 2007), where a wide spectrum of formerly low-status manual activities (e.g. bar tending, home brewing, hair cutting, slaughterhouse work) have been transformed into specialized and hip upscale "craft" occupations (cocktail mixologist, craft brewer/distiller, hair technician, and whole-animal butcher) (Ocejo 2017). Thus, in addition to the small manufacturing activities discussed above, the interstices of newly renovated landscapes often attract myriad tertiary and quaternary activities that rely upon precarious labour, such as design and planning offices, specialty food shops, boutiques, and other personalized and B2B (business-to-business) services (Curran 2007; Sassen 1997). This process of business succession in gentrifying areas is connected to labour flexibilization in multiple ways, especially as small retailers selling customized stock (often produced using sweatshop and/or household labour) in small runs and knowledge- or creative economy-related quaternary sector firms of international influence routinely function as the urban pioneers in the gentrification of rundown areas. Even their core workers regularly labour under a gig economy form of employment in which they suffer from either underemployment or overemployment. For instance, specialty food shops frequently adopt a small, full-service outlet structure, with their labour needs dictating an intense flexibility under an unpredictable schedule (Ocejo 2017)—workers may only be needed for a few hours a day but this restricts them from being able to take on other work. Equally, knowledge- and creative-industry firms locating in such neighborhoods habitually draw upon the expanding pool of flexible labour through gig economy circuits (Madanipour 2018; Stehlin 2016). When combined with the bigger retailers, who may seek to resist displacement pressures by hiring a workforce under flexible arrangements, and the displacement of small, family-operated businesses, many of which were traditionally characterized by lower levels of precarity (even though utilizing informal kinsfolk labour), this means that many types of employment across gentrifying landscapes have increasingly adopted a flexible—and often precarious—character.

Significantly, flexibility in this context does not solely refer to the firms' employees but also to the businesses themselves, as many are essentially geographically footloose, settling in multi-purpose spaces or temporarily renting offices (sometimes for as little as a couple of hours) (Madanipour 2018; Stehlin 2016). Indeed, myriad new "coworking" firms like WeWork, Alley, and the Impact Hub have emerged to cater to these new models of working in the gig economy, offering spaces in which to hold meetings with clients or conduct training seminars. Although these shared spaces can encourage firms and freelancers to exchange expertise and expand their networking, the lack of stability can also add to the precarity of the workforce, as freelancers and temporary workers often function under an illusion of autonomy that fuels a "self-exploitation" model of employment which actually undermines their position in the labour market (Harvey 2017). Moreover, such incubator spaces disseminate new cultural and entrepreneurial practices, facilitating the expansion and consolidation of employment patterns based upon short-term labour market relationships (Draaisma 2017). The use of these spaces—which we might call "fixed assets of labour circulation"—is another way in which labour flexibilization is furthered. Not unimportantly, such precarity in the knowledge and creative industries has acquired a cultural weight, as the "figure of the self-reliant, risk-bearing, non-unionized, always-on, flexibly employed worker" (De Peuter 2014:263) has come to be a "distinct persona" in contemporary labour markets, even if very few workers actually are able to survive long-term under such conditions. Indeed, the growing self-exploitation of workers and the undermined labour conditions they face have driven some parts of the precarious working- and gentrifying middle-class to seek additional income sources, with emerging platforms that mediate peer-to-peer accommodation services (e.g. Airbnb) being a common choice. The wide appeal of gentrified landscapes and the amenities they offer can make such a choice quite lucrative, and these practices can provide a second income—or in some cases a primary one. Such availability of peer-to-peer-offered housing facilitates the operation of flexibilized labour markets, as it helps cover the accommodation needs of a circulating but high-skilled workforce that is temporarily employed in the tertiary/quaternary firms mentioned above. However, short-term rental markets also put pressure upon other forms of housing, as rents and property values rise as residences become cash cows. This can worsen the position of more vulnerable populations in the affected areas and so reinforce gentrification's displacement effects (Gant 2016; Lee 2016; Stein 2015).

Lastly, in considering how gentrification can drive precarity, it is important to recognize how capital switching can starve the primary circuit, leading to the need on the part of manufacturers to cut costs and restructure how they manage their labour needs. Hence, the years preceding the Global Financial

Crisis saw a stark increase in built environment-related investments, exacerbating housing bubbles across wide swathes of the USA, Europe, and beyond (Mayer 2011), and limiting access to capital in much of the manufacturing sector. Indeed, as far back as the late 1990s Glyn (1998) suggested that UK manufacturing had been starved of investment since the 1970s as money poured into financial and business services, whilst even after recovery from the crisis banks have predominantly made loans for home buying rather than to industry and small business (Tily 2017). In the USA, data similarly illustrate an increased investment activity in construction at the expense of manufacturing, especially leading up to the 2007 crisis (Christophers 2011), whilst even after the crisis's end manufacturing and small businesses have continued to have problems accessing capital (Chen et al. 2017). This has exacerbated tendencies towards precarity, as many firms have had to secure ever greater surplus labour from their employees to fund their operations—if they cannot get capital from external sources, internal sources (such as intensifying the exploitation of their workforce) have become, for many, their only option. Efforts to extract greater surplus out of labour have not just affected declining sectors but also growing ones (Curran 2007). Although it is true that, in the years following the recessive shocks, some capital returned to the primary circuit in several places (including Spain, the UK, and the USA [Gourzis and Gialis 2019; OECD 2018])—a process that appears to validate Harvey's (1978) cyclical transposition hypothesis—by the time this happened many urban landscapes had already been gentrified and labour markets made much more precarious. This highlights just how capital switching and the growth of precarity are linked.

Conclusions

We have outlined a way in which to link two important processes that are reshaping cities in the contemporary era, both of which are associated with deeper matters of capital accumulation in the primary circuit: gentrification and labour precarity. Certainly, we do not suggest that these two are driving one another in a functionalist manner, for each can have a degree of autonomy. At the same time, however, they are intimately linked in many instances—in myriad places gentrification has created spaces in which to host a new type of precarious/gig economy but it has frequently relied upon growing precarity, as in the construction trades, to do so. The reciprocal dynamics pertaining to flexibility emerging in gentrifying areas rest, then, upon a set of spatial restructuring-related and gentrification-led conditions. These conditions include: the centrality of flexible labour amid the consolidation of urban spatial fixes; gentrification's displacement pressures on urban manufacturing; and the emerging patterns of consumption characterized by, for instance, alternative food-related businesses and the unfolding of an informal market of peer-to-peer short-term rentals for both accommodation and for workspace. They may also incorporate the growth of tertiary and quaternary sector businesses in inner-city areas that rely upon gig-economy practices. Alongside an influx of creative, small-scale manufacturing, such businesses function under the "artistic mode of production" that, through "an adroit manipulation of urban forms..., transfers urban space from the 'old' world of industry to the 'new' world of finance" (Zukin 1989:178).

In detailing a way to concretely link transformations in the built environment with growing labour market precarity in gentrifying neighborhoods, not only have we attempted to link both phenomena to crises of accumulation, but we have also sought to make greater connections between, on the one hand, urban geography and, on the other, labour geography. Making such connections is important for several reasons, not least of which is that gentrification and neoliberal urban development have shaped the behavior of many labour organizations. Thus unions and community organizations can use rent gaps in soon-to-be-gentrified areas as leverage to have their demands of developers met concerning matters like securing the use of union contractors to do the redevelopment work, with workers' negotiating power (and the value of concessions they are likely to extract) tending to be greatest in instances where the rent gap—and hence the profits to be made from gentrification—is widest. This has led to what MacDonald (2014:256) has called "negotiated gentrification". These developments are important, for they shape how workers and their organizations relate to the city, seeing it "as a capitalist product rather than as a habitat" (MacDonald 2014:12–13), such that labour unions may become part of local growth coalitions involved in pushing gentrification as a way to generate work and secure better conditions for their members.

The ability of unions in the building and other trades to use the rent gap and the potential for gentrification as a way to improve their members' lot, though, speaks to two important theoretical concerns. First, whereas demand-led explanations of gentrification have long incorporated social agency through focusing upon the housing choices of middle-class gentrifiers, supply-side explanations have tended towards more structuralist accounts of the actions of capital in creating rent gaps which then help spawn gentrification. However, understanding how workers can proactively shape the rent gap through their actions—the greater the concessions they can secure from developers the less profit the latter can make and so the smaller the gap's value becomes—provides an opening to better consider matters of labour agency in supply-led explanations of gentrification. Second, it reveals an important contradiction within urban working classes between those who may suffer from gentrification because it sweeps away more affordable housing and, perhaps, more secure jobs and those who may benefit from it, at least temporarily, because they can wrest better employment conditions from developers seeking to profit from it. As with broader struggles over the form of the built environment, then, conflicts over gentrification may sometimes reinforce class-based alliances amongst different segments of the working classes but, on other occasions, may undercut them. This raises questions about how conflicts between capital and labour and between different segments of labour in the primary circuit may shape those in the secondary circuit and vice versa. Both of these matters—that of labour agency and of spatially informed class conflict (Gialis and Herod 2014)—lie at the heart of many contemporary debates within both labour geography and urban geography and are worthy of our continued attention as they reshape the contemporary city.

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Chapter 3

'Going under-employed': Industrial and regional effects, specialization and part-time work across recession-hit Southern European Union regions[6]

Introduction

During the past two decades, part-time employment has expanded faster than full-time employment across most of the European Union (EU; Horemans et al., 2016). The Euro crisis is also associated with increasing shares of involuntary part-time work. As such, part-time employment reflects an underutilization of the labour force, or under-employment (Jenkins and Charleswell, 2016), a phenomenon that not least has hit Greece in a particularly severe manner since the eruption of the Greek crisis. Under-employment, often known as 'hidden unemployment', is a relatively under-researched aspect of contemporary economic restructuring and only a handful of scholars have discussed its relation to labour flexibilization (Green and Livanos, 2015; Jenkins and Charleswell, 2016). Scrutinizing its interconnection to both unemployment and flexible, or even atypical, work is important for developing insights about the dynamics of EU regions. In particular, there is a need to describe and understand the profound changes taking place in the socio-economic structures of Southern Europe.

The paper in hand intends to fulfil part of this gap by offering a theoretically informed empirical study on how the intersection of production structures and regional labour markets affects under-employment. By doing so, the paper offers new critical insights regarding economic restructuring and regional labour market change and the issues of under-employment, labour surplus and precarious forms of employment. More specifically, the paper investigates under-employment by focusing on the uneven dispersion of part-time jobs in Greece and its regions during the ongoing crisis and recession. The fundamental research hypothesis tested in the empirical part is that the phenomenon of underemployment is an integral dimension of flexible labour trends that are triggered by devaluation and crisis. The second dimension of this hypothesis is that under-employment has diverse geographical and sectoral expressions.

Three research questions guide the paper: firstly, what is the extent of under-employment, and of part-time work in particular, after the onset of the Greek crisis in 2008? Secondly, what are the regional and sectoral differences of the rise of under-employment in the country? Finally, what are the mechanisms driving the trends in under-employment, which, overwhelmingly, hit the less-privileged strata of the labour force? Using a theoretically informed empirical analysis methodological framework, the paper highlights certain productive, organizational and institutional mechanisms that produce four divergent regional responses (e.g. between the metropolitan and the tourism-oriented spatial entities); these divergences make the 'Greek peculiarities' an interesting case of wider significance.

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In contrast to unemployment, under-employment lacks a strict definition. Most studies point out that an under-employed individual usually works on a part-time basis while needing and desiring full-time employment or is employed in a low-paying job that requires less skill or training than he/she possesses (thus the terms 'part-time work' and 'under-employment' are below used interchangeably; Eurostat, 2016). Under such a definition, the under-employed persons do not have access to a salary that is necessary to sustain themselves and their families and, thus, face very similar problems to those that are unemployed. An under-employed individual is, then, an 'underutilized labourer' who is usually low-paid or overqualified for the work that he/she carries out or is engaged in work for a few (e.g. four or less than four) hours per day (Livingstone, 2016; Veliziotis et al., 2015). Many studies tend to neglect the underpaid or over-qualified aspects of contemporary part-time work, voluntary or not, although it is increasingly seen as a norm in labour markets in Southern Europe. In Greece, for example, all part-time workers receive an official gross salary of less than 480 Euros per month, an amount that is far below the official poverty line in the country (Copus et al., 2015; INE, 2016: 110).

The remainder of the paper is structured in the following manner: After a conceptual and analytical framework offered in the second section and a methodological framework offered in the third section, we enter a region-specific account of under-employment patterns across different sectors in the fourth section. To serve the research objectives, the paper focuses on all 13 Greek regions by comparing thoroughly taxonomized employment data between 2005 and 2008 and 2009 and 2012. We also implement a new embellishment of the shift-share analysis (SSA) method in order to examine the impact of industrial mix (IM) on total employment and underemployment patterns, and assess how regional competitive advantages in relation to such forms of employment seem to have changed due to the crisis. In the fifth section we provide an extended discussion of the interface between local production specialization and restructuring on the one hand, and the issue of an increasing local labour surplus on the other. The final part (the sixth section) offers some concluding remarks.

Theoretical Framework: Crisis and under-employment across multiple geographical scales

Post-1990s, the EU South has experienced a debt-driven growth model with a real estate bubble, resulting in large current account deficits (Hadjimichalis and Hudson, 2014; Mavroudeas, 2014). This process has accelerated since the introduction of the Eurozone and was a major driver behind the outburst of the 2008/2009 crisis and growing socio-economic turbulence ever since, with Greece as the perhaps most prevalent example. During the post-recession period, political-economic intra-EU rivalries are under rising tension, whereas labour market indexes, such as unemployment, in-work poverty and absenteeism, have been increasing (Adam and Papatheodorou, 2016; Gialis and Leontidou, 2014).

Many scholars of various theoretical and socio-political backgrounds have tried to interpret the whys and hows of new trends in the labour market. Two standpoints are typical for political economy approaches. Firstly, the unemployed and underemployed (forming the local labour surplus) constitute territorially embedded human assets of knowledge and expertise, and should be seen as indispensable for the recovery and sustainable growth of the local economy. Secondly, shrinking work opportunities and obstructed access to employment cannot be solved on an individual basis. Rather, joblessness is a problem that affects the community as a whole; it therefore requires the coordination of the local labour surplus with institutional and business organizations in order to claim back the right to work, and upgrade local development structures (Mavroudeas, 2014; Reinhart and Trebesch, 2015; Warren, 2015).

The spatially uneven impact of recession is usually scrutinized through analyzing changing unemployment rates either on a national or sub-national level. The diversified role that different segments within 'total employment' play is usually underestimated. Yet, the vast array of everyday working norms, practices and regulations that different groups of the 'employed' (especially the less-privileged ones) face, does matter. The recent work of Green and Livanos (2015) that focused on involuntary non-standard employment, here including involuntary part-time and temporary work, found that some individuals become part of the 'hidden unemployed' instead of maintaining economically active memberships in society. They assert that this applies even for stronger labour markets, such as the regional labour markets of the UK, which present clear variations in terms of involuntary part-time employment trends. As found, stronger regional economies had lower involuntary shares, while the weaker ones were worse off.

Under such circumstances, part-time low-paid contracts can become traps rather than 'stepping stones' to more desirable permanent jobs (see De Jong et al., 2009). For example, several studies have provided some interesting remarks on the connection between such work and limited chances for advancement in the Spanish or Italian labour markets (Amuedo-Dorantes, 2000; Barbieri and Scherer, 2009). The so-called 'rigidity' within local labour markets that produces a dualism between those low-paid, under-employed workers and the more protected 'core employees' is present and generates increasing segregation. The Organization for Economic Co-operation and Development (OECD) studies the phenomenon through its 'Indicators of Employment Protection' (OECD, 2016) series. Regionally sensitive studies that account for recessionary flexibilization trends found that many Southern EU labour markets, especially the Greek ones, are in the top places of the 'flexibilization ranking', irrespective of the impact of the 'rigidity' index values (Gialis and Taylor, 2015). That being said, some fresh and updated accounts of the interconnection between (higher than officially estimated) flexibility, under-employment and dualism in Southern EU is needed.

Relevant literature has focused on involuntary part-time and temporary work and its relation to inferior job quality (Kauhanen and Nätti, 2015). Other studies have explored the 'strong positive correlation' between involuntary part-time employment and unemployment. For instance, Kretsos and Livanos (2016) found that part-time work mainly affects younger people, workers of lower education/occupational status and women (Kretsos and Livanos, 2016); other researchers have scrutinized the contribution of such employment forms to widening class divisions in advanced societies (Warren, 2015). Here, involuntary part-time workers face a higher poverty risk (Horemans et al., 2016) and, since the 'Great Recession', full-time workers face equally high risks of working part-time along with the high probability of being unemployed. Also, variations in involuntary part-time work are highly dependent upon variations in full-time work (Borowczyk-Martins and Lalé, 2016).

Recent studies that have an explicit focus on part-time employment and unemployment are few, despite the pressing issue of the Greek crisis for the past six years. Veliziotis et al. (2015) find that non-standard low-paid jobs are on the rise and argue that the existent gaps in wage level and job quality between voluntary and involuntary part-time workers are not as important in Greece as they are in the UK (meaning that part-timers of both types are very close in terms of their work statuses in the former country). Moreover, they point out that part-time jobs were widely viewed by workers as sub-optimal. This, in turn, implies that institutional path-dependence and the quality of part-time contracts are determining employee (dis)-approval for such types of jobs. These trends, combined with the poor wages in almost all part-time jobs, highlight the need to expand the scope of analysis to voluntary part-timers in the Southern EU framework.

Overall, steadily increasing (involuntary) part-time employment is seemingly becoming the norm rather than the exception in certain segments of contemporary labour markets. It is an employment form that has contributed to increasing employment rates and to more numerical and working-hour flexibility, affecting both employers and employees, and increasing the options for re-entering the labour market for the non-active segments of the labour force. Easier entry to the labour market and better coupling of work and familial duties, especially for women, are some benefits of part-time employment highlighted in the literature (see Lymperaki and Dendrinos, 2004). However, recessive pressures and the need for cheap labour often offset the positive and exacerbate the negative traits. In many cases, part-time work is strongly interrelated with 'low-road' flexibility practices and bad/poorly paid jobs. Under such terms, there is a threat to both contemporary living standards and future welfare and pension systems (Jenkins and Charleswell, 2016; Warren, 2015).

Methodology and background of research

In the paper, we analyze two forms of under-employment and contrast them to overall employment numbers. As an operationalization of under-employment, we turn to total part-time and non-voluntary part-time employment. The data is collected from the Labour Force Surveys of HELSTAT (National Statistics Authority), which follows the norms of Eurostat (Eurostat, 2016) and identifies non-voluntary part-time work through questioning the employee whether 'he/she prefers full-time engagement'.

Along with an explicit focus on non-voluntary part-time work, we expand the scope of our analysis to total part-time work in light of our argument about the highly blurred boundaries between part-time work categories in Greece. This has to do with the very low wage level and poor job quality in Greece's overall part-time employment (cf. Veliziotis et al., 2015). In addition, we choose this extended definition of under-employment because of the high discrepancy regarding part-time work shares between HELSTAT and other official sources, such as the employment contracts database of the Ministry of Employment. Although not directly comparable, the latter source reveals that part-time work is probably more widespread than HELSTAT's estimates (Ergani, 2016).

We operationalize the research questions through the following methodological framework: firstly, we divide Greek regions into different groups of distinct productive specializations based on a thorough analysis of major employment/sectoral concentrations. The rationale for this grouping is to offer a fresh account of changing regional specializations[7] as well as a non-exhaustive regional taxonomy that supports our analysis. The analysis commences by scrutinizing (under-)employment, its changing relative shares, and notable over- and under-concentrations relative to the different groups. Common trends are traced through a series of relative shares' comparisons in order to understand the regional patterns of underemployment. Then, we employ a new embellishment of SSA[8], presenting a clear decomposition of the distinguishable factors affecting employment change across the identified productive/regional entities. We focus on two time periods. The first, 2005–2008, covers the pre-crisis expansionary years after the Athens 2004 Olympics, a period also noted for enhanced financial speculation. The second period, 2009–2012, marks the first years of severe economic depression, during which the first memoranda were implemented (Gialis and Tsampra,

[7] Many relevant works are attempting such 'loose typologies' of regions across the EU. For example, OECD (2014) classifies regions along the Urban-Rural divide, while Navarro et al. (2009) classify in relation to innovation diffusion. For Greece-relevant analyses that studied specialization using data for earlier periods than the ones studied here, see Psycharis et al. (2014), Giannakis and Bruggeman (2015) and Gialis and Tsampra (2015).

[8] This new SSA has been recently presented by Artige and Van Neuss (2014) in an attempt to better isolate between the regional and the structural effects.

2015). The scale of analysis is the 13 NUTS-II regions for which relevant labour data are analyzed across nine sectors[9].

We follow these steps in the analysis; firstly, we calculate the location quotient (LQ) for all employment forms and across all sectors in order to identify regional specializations and important concentrations of under-employment. This is calculated from the start year and end year of each period, and we use 1.20–1.25 and 0.70–0.75 as approximate cut-off values of over-concentration and under-concentration, respectively. The following changing analogies between two clearly defined 'dipoles' are conducted: (a) total part-time versus total full-time within total employment, and (b) non-voluntary versus voluntary as parts of total part-time employment.We then turn to SSA in order to offer a more dynamic decomposition of the actual employment change of each region in three parts. This includes the national share (NS), the IM, also known as the 'structural effect' and, finally, the regional or 'competitive' share (RS), which potentially reveals the different factors affecting employment change.

During our analysis we identified four different, yet overlapping, regional groups based on both quantitative and qualitative criteria, namely the high total employment LQs[10] across the respective sector in 2005, urban or rural, seasonality, geographical centrality and, finally, insularity. Accordingly, we have grouped the regions as metropolitan (two regions), manufacturing (two), agricultural (five) and tourism-based (four) (see Table 3.1). Although relatively homogeneous, the regions also have notable internal differences. For example, the metropolitan group consists of the two most densely populated regions around Athens and Thessaloniki. Attica hosts the capital city of Athens and is significantly larger and more intensely urbanized (Panori et al., 2016). Central Macedonia, on the other hand, includes several middle-sized cities and agricultural areas in addition to the significant urban agglomeration of Thessaloniki. Thessaloniki has gradually lost its specialization in manufacturing, becoming one of Greece's rust-belts following industrial relocalization and recession (Kallioras et al., 2016; Petrakos and Psycharis, 2016). The agricultural group also demonstrates variation. For instance, Epirus and Eastern Macedonia are deprived areas lacking sufficient infrastructure and human capital, while others, such as Thessaly, are relatively well-off and include important urban–industrial agglomerations (Giannakis and Bruggeman, 2015; Papadopoulos, 2016).

Finally, the tourism-based group consists of all the Greek island regions. These regions typically have high concentrations of employees in the hospitality sector. However, there are distinct variations (Armstrong et al., 2014). The South Aegean and the Ionian Islands are typical cases of areas highly based on 'sun and sand' tourism, while the North Aegean region has a higher dependency on the public sector and agricultural activities in addition to tourism. Crete is also a distinct case of a

[9] In brief, sector 1 is agricultural production (two-digit NACE codes: 01–03); sectors 2–4 represent manufacturing (05–33), construction (41–43) and Energy production (35–39), respectively; sectors 5–7 represent commerce, transportation and communication (45–53, 58–63), hotel, food and catering and financial (55–56), professional and 'knowledge economy' (64–82) activities, respectively; and finally sectors 8 and 9 include public services, health and education (84–88) and leisure, arts and all activities not recorded above (94–99, 00).

[10] The LQ of a sector in a region is calculated by dividing this sector's (under-)employment share in that region by its share on a national level. Regions are classified across different groups based on their pre-crisis specialization (i.e. total employment LQ > 1.20 in Sector 1 for the agricultural regions, in Sector 2 for manufacturing and in Sector 6 for tourism-based, values for 2005), with the exception of the metropolitan ones, which are defined based on the major cities they incorporate while they hold a LQ close to 1 in almost all their tertiary sectors (as in Table 3.1).

tourism-based region as it holds an important agro-industrial production and a far more diverse economic base (Ergani, 2016; Karoulia et al., 2016).

Analysis: Under-employment patterns across the Greek regions

No country in the crisis-hit Eurozone and the EU has suffered as much employment destruction and productive capacity losses as Greece. The level of losses is only comparable to respective falls in countries under 20th century's military conflicts or during the post-Soviet collapse (Mavroudeas, 2014; Reinhart and Trebesch, 2015). Indicatively, the pre-recession period of moderate increments in total employment and mild falls in the (already high) unemployment figures was interrupted by a sudden loss of more than 15% of all jobs coupled with skyrocketing rates (more than 100% increase) in unemployment figures. However, although astonishing in its character and intensity, the recession is not homogenous. Some of the regions perform somewhat better, including half of the tourism-based regions and some of the agricultural regions, to a lesser extent (i.e. they are more resistant to employment degradation). The rest of the regions, and the two metropolitan regions in particular, show far worse figures (see Table 3.1). The data shows that (total) employment losses are followed by increments in under-employment. Part-time employment shares are higher in 2012 compared to 2005 or 2008, with no regional opt-outs. Involuntary shares also have a sharp increase, with Thessaly (agricultural) being the only exception.

When looking closer at the data, we see that some regions have a higher de facto unemployment coupled with an expansion of under-employment therein. The Ionian Islands region is an example. Other regions do not seem to counteract unemployment through peaking involuntary shares; some are even suffering from both high unemployment and increasing part-time work (either total or involuntary, as in the manufacturing regions, see Table 3.1). It is thus difficult to find universal trends if we do not consider the regional industrial structures and endowments that determine the particularities of under-employment. As such, we need a comparative view of changing relative shares between different forms of employment that is regional and sectoral-sensitive at the same time. In the next section we unpack some of this complexity.

Internal and (un)balanced under-employment dichotomies

Considering sectoral differences, we find that leisure, arts and related services have the highest part-time shares. Agriculture is second, but its share in part-time work is decreasing. The construction and hospitality sectors are the two most salient sectors where part-time work expands the most. For hospitality, this trend is related to the seasonal nature of employment (see Figure 3.1). Seen in absolute terms, most part-time labour in Greece is employed in agriculture, commerce and the public sector, although the latter sector has seen declining trends due to massive contract terminations after 2008. Part-time employment has also sharply expanded in construction, whereas full-time employment has sharply decreased (also see Petrakos and Psycharis, 2016).

Table 3.1: Employment, unemployment, total and involuntary part-time employment per group of regions, (%), 2005, 2008, 2009 and 2012.

Region		Total Employment Changes		Unemployment Rates and Changes				Part-time Employment Shares (in Total Employment)				Non-voluntary Part-time Employment Shares (in total Part-time Employment)				LQ VALUES FOR TOTAL EMPLOYMENT
		2005-08 (%)	*2009-12 (%)*	*2005 (%)*	*2005-08 (%)*	*2012 (%)*	*2009-12 (%)*	*2005 (%)*	*2008 (%)*	*2009 (%)*	*2012 (%)*	*2005 (%)*	*2008 (%)*	*2009 (%)*	*2012 (%)*	*2005*
EASTERN MACEDONIA & THRACE		1.2	-14.8	11.9	*-27.6*	22.8	*101.4*	5.4	6.3	6.3	7.5	48.8	43.5	41.1	55.3	2.2*
EPIRUS		5.7	-16.8	11.5	*-10.9*	22.5	*92.4*	5.2	7.2	8.6	8.4	43.7	41.3	38.5	48.2	1.5*
WESTERN GREECE		2.5	-20.5	10.7	*-6.5*	25.6	*152.8*	4.4	5.6	6.1	6.1	56.9	51.2	58.4	67.0	1.9*
THESSALY		0.6	-18.7	9.4	*-12.1*	22.6	*134.0*	6.4	7.1	7.9	9.3	50.5	42.1	40.0	50.2	2.0*
PELOPONNESE		6.1	-17.4	8.6	*-15.0*	19.2	*128.8*	6.4	6.4	6.0	6.9	45.6	41.0	44.3	59.3	2.8*
WESTERN MACEDONIA		6.8	-24.5	18.1	*-31.0*	29.7	*124.5*	8.4	10.1	9.7	10.9	41.0	36.5	32.2	54.7	1.3**
CENTRAL GREECE		2.9	-19.9	11.0	*-22.6*	27.9	*165.2*	4.9	7.8	7.4	7.6	41.0	44.5	34.9	66.2	1.3**
CENTRAL MACEDONIA	**LEGEND**	3.9	-20.3	11.2	*-24.1*	26.2	*152.0*	4.6	7.0	6.7	6.9	54.5	38.1	47.5	64.7	***
ATTICA	*Agricultural*	4.6	-21.1	9.1	*-25.2*	25.8	*175.3*	4.3	4.1	5.1	7.8	53.0	46.7	55.2	69.3	***
IONIAN ISLANDS	*Manufacturing*	2.7	-8.2	8.6	*0.0*	14.7	*51.1*	7.0	5.1	5.3	13.8	24.2	46.4	38.1	45.7	3.0****
SOUTH AEGEAN	*Metropolitan*	4.5	-4.3	9.5	*-10.1*	15.4	*24.0*	4.1	5.4	5.3	5.6	36.8	30.9	40.4	39.4	2.9****
NORTH AEGEAN	*Tourism*	0.3	-6.5	10.6	*-58.3*	21.8	*270.0*	3.8	3.1	4.3	6.4	40.7	30.9	20.9	64.7	1.4****
CRETE	Value Rang *Low* *Mid* *High*	2.5	-16.7	7.2	*-9.7*	22.3	*140.1*	7.3	6.2	6.5	10.3	29.1	26.4	47.4	50.9	1.7****
NATIONAL		**3.8**	**-18.9**	**10.0**	***-21.4***	**24.4**	***146.6***	**5.0**	**5.7**	**6.1**	**7.8**	**47.9**	**41.6**	**47.1**	**61.4**	

**LQ values in the agricultural sector.*
***LQ values in the manufacturing sector.*
****In metropolitan regions, LQ values are very close to 1 for the majority of sectors.*
*****LQ values in the hotels, food and catering sector.*

Source: Authors' calculations and synthesis based on HELSTAT's Regional Labour Force Survey data in respective years.

Figure 3.1: Balance between (i) part-time and full-time and (ii) non-voluntary and voluntary part-time employment (% of total part-time) per sector, 2005, 2008, 2009 and 2012.
Source: Authors' calculations and synthesis based on HELSTAT's Regional Labour Force Survey data in respective years.

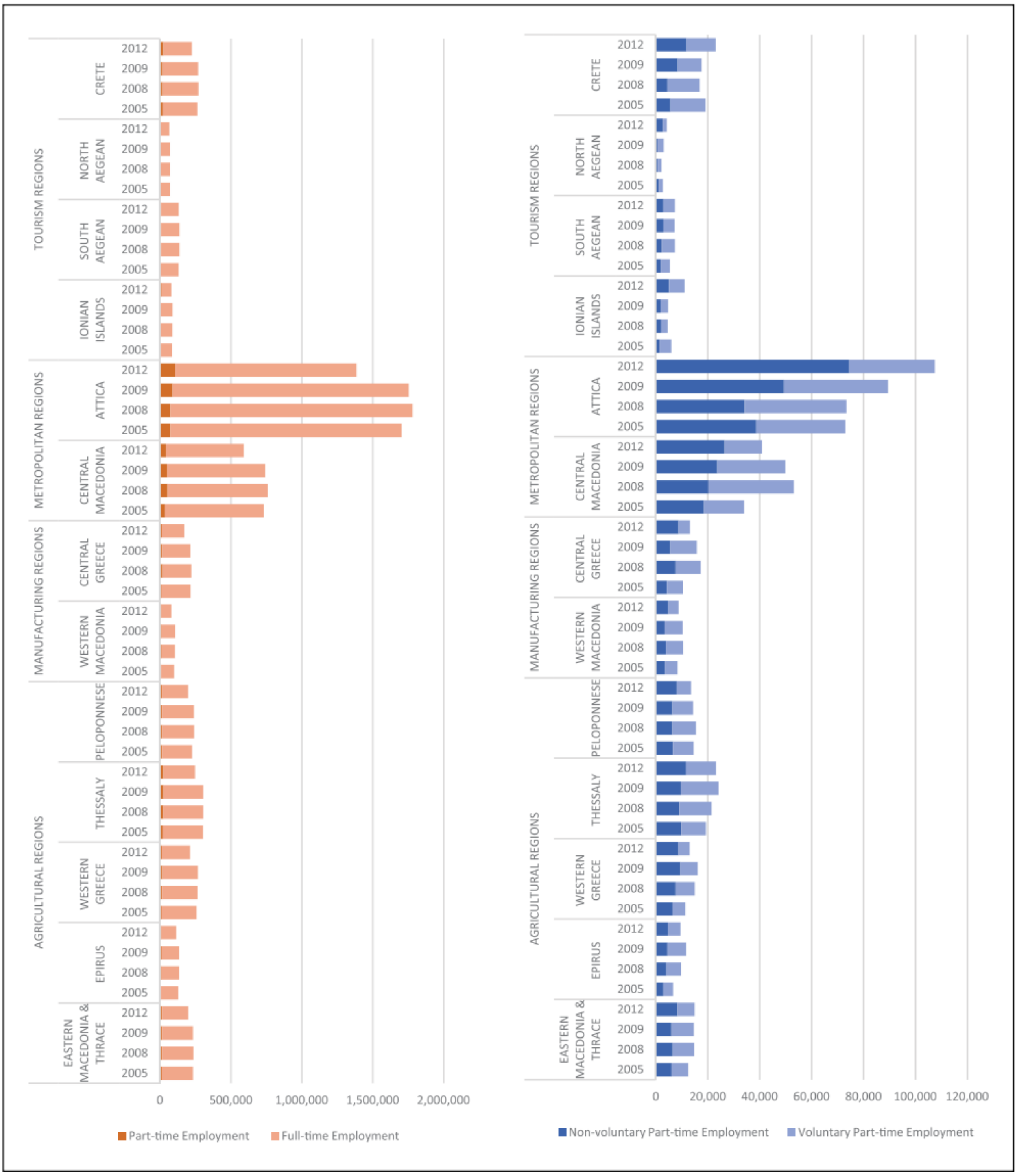

Figure 3.2: Balance between (i) part-time and full-time and (ii) non-voluntary and voluntary part-time employment (% of total part-time) per group of regions, 2005, 2008, 2009 and 2012.
Source: Authors' calculations and synthesis based on HELSTAT's Regional Labour Force Survey data in respective years.

When we look at the regional geographies of part-time employment, we see that it is concentrated in metropolitan and tourism-based regions. Almost all tourism-based regions witness a notable 'leap' at some point throughout the two periods we have studied. An example is the Ionian Islands during 2009– 2012 (see Figure 3.2). Metropolitan regions, which hold more than 50% of national part-time employment, also show expanding trends for part-time employment, a finding in line with other contributions (Borowczyk-Martins and Lalé, 2016; Green and Livanos, 2015; Veliziotis et al., 2015). Volume-wise, part-time work can also be found in some agricultural regions, such as Thessaly. The only regions that witness stagnant or shrinking shares are the manufacturing and some of the more deprived agricultural regions (e.g. Epirus).

Distinguishing between involuntary and voluntary forms part-time employment, we see a common trend in almost all sectors and regions (see Figures 3.2 and 3.3): the relative share of non-voluntary part-time employment retreats during pre-crisis and highly increases during the recession. In 2012, involuntary part-time employment constitutes more than half of total part-time employment, whereas its 2005 relative share was far lower. This is true for all sectors apart from agriculture, and true for all regions apart from Epirus, the Ionian Islands and the South Aegean. Important concentrations of involuntary part-timers have been located in construction, leisure and hoteling, where respective LQ values are far higher than 1.5 (as in Table 3.2). Also, construction, manufacturing and especially commerce are going through a fast 'low-road to flexibilization' process that boosts not only total part-time work, but its involuntary part alike. A notable case is Central Macedonia, where involuntary part-time work is expanding despite total part-time employment declining.

Overall, part-time employment LQ values show that there is an important increment in most metropolitan and tourism-based regions, as well as in secondary or tertiary activities that are common within these regional productive groups. This increment, coupled with a dynamic expansion in sectors that had almost zero levels of underemployment pre-recession (i.e. construction), outweighs shrinkage in more traditional sectors and less-privileged regions (e.g. agriculture). As such, the development highlights the significant setback in full-time jobs in certain productive niches and sectors across the regions.

…And the differentiated impact of structural and regional factors upon groups of regions

When we conduct the SSA for both total and part-time employment (as in Table 3.3), we find profound, although divergent, changes. The two metropolitan regions are different in terms of under-employment; during the pre-crisis period both increased their total employment above the national trend, with Attica as the most important centre for job creation. During the crisis, however, metropolitan regions lost almost a fifth of their total employment. Besides the impact of national pressures on all sectors, the impacts of regional/ competitive factors are especially harder in Attica. Moreover, sectoral configurations in Central Macedonia counterbalanced the significantly negative influence of the territory-deriving forces. These remarks are in line with the findings of previous works (cf. Petrakos and Psycharis, 2016).

Table 3.2: Location quotients of total part-time employment per sector[a] and group of regions[b], 2005 and 2012.

Region		1. Agriculture		2. Manufacturing		3. Energy and resources		4. Construction		5. Commerce, transportation and communications		6. Hotel, food and catering		7. Knowledge economy		8. Public administration, healthcare and education		9. Leisure, arts and NRA services		**PART-TIME EMPLOYMENT**	
		2005	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*	*2005*	*2012*
EASTERN MACEDONIA & THRACE		1.0	1.7	0.9	0.4	0.0	0.0	0.7	0.9	0.9	1.0	1.8	1.0	0.8	1.1	1.3	0.8	0.4	0.6	**1.1**	**1.0**
EPIRUS		1.5	2.4	1.3	0.6	0.0	0.0	1.4	1.0	0.6	1.0	1.1	0.7	0.6	0.3	0.9	0.6	0.6	0.3	**1.0**	**1.1**
WESTERN GREECE		1.0	1.3	0.6	0.6	0.0	0.0	1.7	0.6	0.8	1.1	1.4	0.8	0.5	0.3	1.2	1.5	0.8	0.7	**0.9**	**0.8**
THESSALY		1.4	2.2	0.7	0.4	0.0	1.7	1.1	0.6	1.1	0.7	0.7	1.2	0.7	0.4	0.8	0.5	0.9	1.1	**1.3**	**1.2**
PELOPONNESE		2.2	2.7	1.1	0.6	9.0	1.1	1.1	0.2	0.5	0.9	0.5	0.4	0.4	0.2	0.7	0.6	0.7	0.9	**1.3**	**0.9**
WESTERN MACEDONIA		2.2	1.3	1.0	1.1	0.0	7.6	0.5	0.4	0.3	0.9	1.0	1.3	0.4	0.5	0.8	1.1	0.4	0.7	**1.7**	**1.4**
CENTRAL GREECE		1.7	1.5	1.0	1.0	0.0	4.4	1.0	1.0	0.9	0.7	1.2	1.2	0.7	0.7	0.5	1.0	0.7	0.7	**1.0**	**1.0**
CENTRAL MACEDONIA	**LEGEND**	0.6	0.9	1.5	1.1	0.0	0.2	0.5	0.5	1.3	0.9	1.1	1.0	0.8	1.2	1.2	1.5	1.1	0.8	**0.9**	**0.9**
ATTICA	*Agricultural*	0.1	0.1	1.1	1.4	0.0	0.7	1.1	1.5	1.2	1.1	1.0	1.0	1.8	1.5	1.2	1.1	1.5	1.3	**0.9**	**1.0**
IONIAN ISLANDS	*Manufacturing*	2.4	1.9	0.8	1.2	15.6	0.0	1.3	0.7	0.3	0.3	0.7	1.2	0.7	0.4	0.6	0.8	0.3	1.5	**1.4**	**1.8**
SOUTH AEGEAN	*Metropolitan*	0.5	1.4	0.5	0.3	0.0	0.0	2.8	0.8	1.4	1.6	2.0	1.5	0.3	0.4	0.6	0.5	1.1	0.4	**0.8**	**0.7**
NORTH AEGEAN	*Tourism*	1.3	1.5	0.2	1.7	0.0	0.0	2.6	0.3	0.8	1.5	0.6	0.9	0.6	0.6	1.1	0.3	0.8	0.6	**0.8**	**0.8**
CRETE	**Value Range** *Low* *Mid* *High*	2.5	1.2	0.6	0.8	0.0	1.5	0.5	1.5	0.8	1.0	0.4	1.0	0.3	0.9	0.4	0.7	0.6	0.9	**1.4**	**1.3**

[a]Regional to national sectoral share.
[b]Regional to national total part-time share.
[c]NRA: Other activities that have not been recorded above/ in other sectors.

Source: Authors' calculation based on HELSTAT's Labour Force Survey data.

In the manufacturing regions we find that both under-employment and total employment increase before the Eurozone and Greek crisis. This is especially so for energy-intensive Western Macedonia, whichh had the highest country-wide increase (for similar findings in the US context, see Beyers, 2013) emanated mainly from regional factors, such as its resource-rich territory. Central Greece can also be regarded as a region with a specialization in manufacturing, as it hosts the largest industrial plants, including those that are capital-intensive. However, employment changes here seem to be more sensitive to national economic trends, suggesting that regional factors are less important. In the recession period (2009–2012), manufacturing regions were in significant distress. The boost of the pre-crisis period was replaced by a sharp decline in employment, as almost one fifth of total employment was lost. Manufacturing regions' structurally weak sectoral mix is also manifested through highly negative IM values in all employment types. For local part-time employment, sectoral configurations outweigh regional factors again, but they offset national influence as well, resulting in a sharp absolute decrease in both regions, while nationally this type of employment expands. This is possibly because, compared to jobs in construction or tourism, the typical factory job is associated with full-time employment in Greece (Martin et al., 2016).

Agricultural regions also saw a rise in employment figures for both total and part-time employment during the pre-crisis period (2005–2008). It seems that sectoral configurations played a smaller role in total employment in almost all other Greek regions, and a mixed one in part-time work, as the mostly negative values of Ims reveal. RS, on the other hand, was mostly positive for total and part-time employment alike. The positive influence of regional competitive characteristics in all but Western Greece appears as quite clear in our analysis. In terms of part-time employment, we find that RS values suggest a significant expansion of under-employment for agricultural regions in the pre-recession period. During the recession (2009–2012), all agricultural regions lost a part of their total employment at a rate close to the national average (NS of –18.9%). This means that these regions do not seem to be hit as hard as the manufacturing and metropolitan ones. Industry-specific factors seem to have played a positive role for many among the agricultural regions, yet these factors were not able to outweigh the negative impact of national pressures (Table 3.3). Overall, agricultural activities clearly 'produced' under-employment, which in turn made total employment losses milder than the ones in other regional groups.

Finally, two of the tourism-based regions, the Ionian Islands and South Aegean, are the only ones presenting notable total employment increments during the pre-crisis period. In the South Aegean there was a rise in part-time jobs in the pre-crisis period based on the influence of regional characteristics, such as the local endowments that positively affect jobs in tourism. During the recession period, all tourism-oriented regions show a remarkable 'resilience' in total workforce numbers. With the exception of Crete (a 'deviant' example of a much more economically diversified economy than in the other islands), the other three have smaller declines in employment numbers compared to the other Greek regions. Here, the four tourism-based regions have regional characteristics that mitigate some of the negative national employment trends, even despite that the sectoral composition of these regions in itself should work negatively when compared to national numbers. For part-time employment, we see the same trend, and it is remarkable that, apart from the South Aegean, this pattern applies to all tourism-based regions (see Figure 3.3 for a visual comparison). A possible part of the explanation could be that insularity, favourable climatic conditions and a more stable tourism base compared to mainland Greece restrained the employment decline (see Armstrong et al., 2014). Thus, recessive pressures did not hit tourism-oriented regions as hard as the other Greek regions. The same applies for the agricultural regions, as seen above, but to a lesser extent.

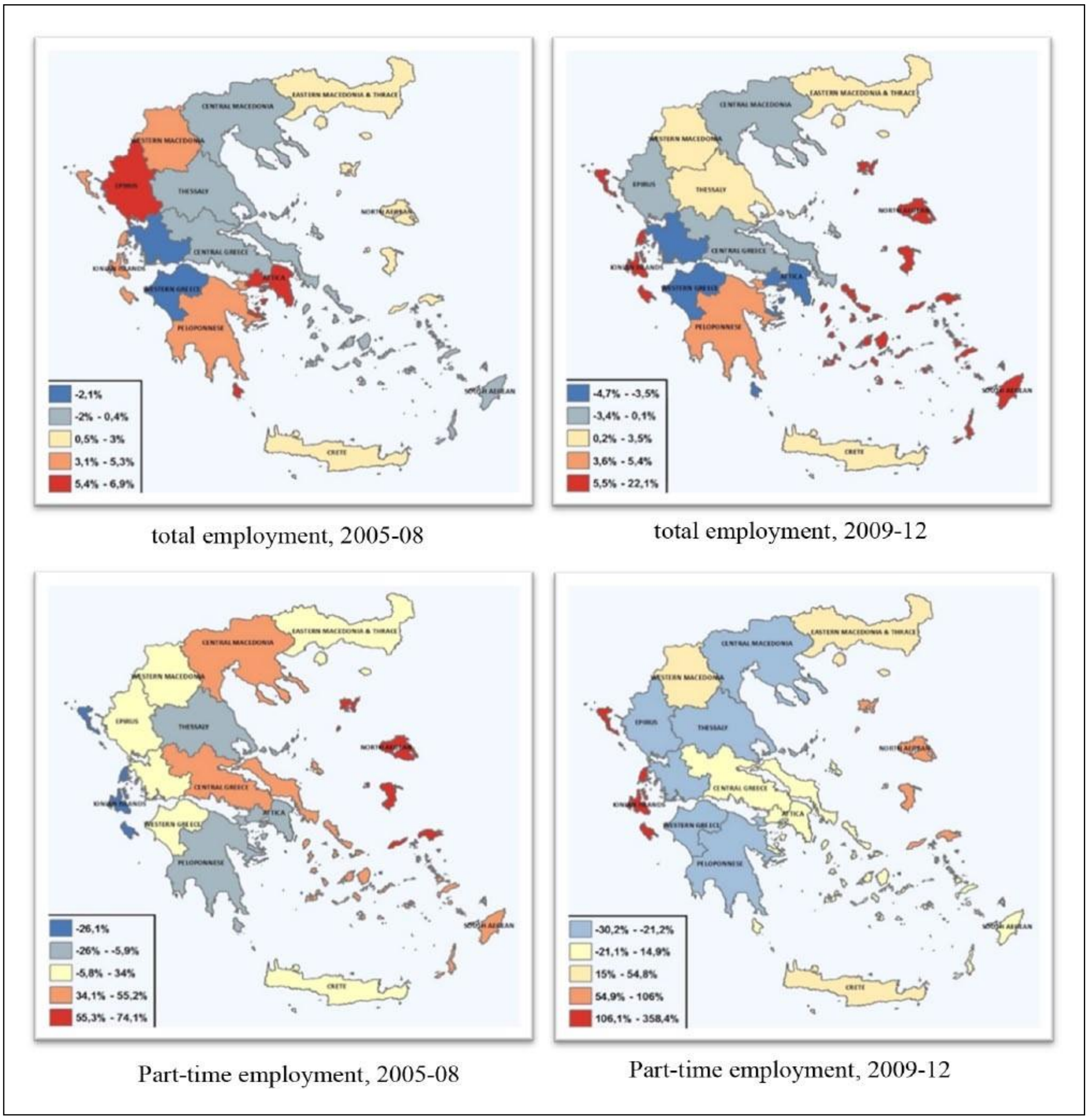

Figure 3.3: Mapping regional share (RS) for total and part-time employment across Greek regions, 2005–2008 and 2009–2012.

Source: Authors' synthesis based on the results of shift-share analysis in the respective periods.

Table 3.3: Results of shift-share analysis for total and part-time employment per group of regions, 2005–2008 and 2009–2012.

Region		Total Employment								Part-time Employment							
		2005-2008				*2009-2012*				*2005-2008*				*2009-2012*			
		NS	*IM*	*RS*	*Actual 2005-08%*	*NS*	*IM*	*RS*	*Actual 2009-12%*	*NS*	*IM*	*RS*	*Actual 2005-08%*	*NS*	*IM*	*RS*	*Actual 2009-12%*
EASTERN MACEDONIA & THRACE			-5.6	3.0	1.2		1.5	2.6	-14.8		-9.1	10.2	18.3		-56.4	54.8	2.3
EPIRUS			-4.3	6.2	5.7		3.8	-1.7	-16.8		9.2	18.8	45.2		6.2	-28.9	-18.8
WESTERN GREECE			0.8	-2.1	2.5		3.1	-4.7	-20.5		-9.5	23.8	31.5		6.7	-30.2	-19.6
THESSALY			-2.9	-0.2	0.6		-2.6	2.8	-18.7		0.3	-6.2	11.3		12.9	-21.2	-4.4
PELOPONNESE			-2.0	4.4	6.1		-3.8	5.4	-17.4		-2.2	-8.4	6.6		17.3	-26.6	-5.4
WESTERN MACEDONIA			-2.3	5.3	6.8		-9.1	3.5	-24.5		-18.8	28.8	27.1		-48.8	29.1	-15.8
CENTRAL GREECE		3.8	-0.9	0.0	2.9	-18.9	-1.1	0.1	-19.9	17.2	-1.0	48.4	64.6	3.9	-20.5	-0.3	-16.9
CENTRAL MACEDONIA	**LEGEND**		-0.3	0.4	3.9		-0.3	-1.1	-20.3		-16.0	55.2	56.3		8.3	-30.2	-18.1
ATTICA	*Agricultural*		-6.0	6.9	4.6		1.4	-3.5	-21.1		-10.7	-5.9	0.5		1.4	14.8	20.1
IONIAN ISLANDS	*Manufacturing*		-5.2	4.1	2.7		-11.4	22.1	-8.2		-15.5	-26.1	-24.4		-225.0	358.3	137.2
SOUTH AEGEAN	*Metropolitan*		1.1	-0.4	4.5		-4.8	19.4	-4.3		-32.6	53.0	37.6		-2.0	-0.8	1.1
NORTH AEGEAN	*Tourism*		-5.6	2.2	0.3		-7.3	19.6	-6.5		-110.5	74.1	-19.3		-74.5	105.9	35.2
CRETE	**Value Range** *Low* *Mid* *High*		-3.8	2.5	2.5		-1.2	3.4	-16.7		-63.2	34.0	-12.1		-7.4	34.2	30.7

NS: national share; IM: industrial mix; RS: regional share.

Source: Authors' calculations and synthesis based on HELSTAT's Regional Labour Force Survey data in respective years.

Discussion

By attributing on-the-rise part-time trends to carefully decomposed structural and regional effects, we came across some rather interesting findings. These findings contrast much of the existing literature that focuses on regions of the EU North (Green and Livanos, 2015; Kauhanen and Nätti, 2015). A first remark, that answers the first question posed in the introductory section regarding the extent of part-time work, is that there is a high, although geographically uneven, expansion of such jobs in contemporary Greece. As we define under-employment through looking at (involuntary) part-time work, we thus point to the rise in this form of employment in the Greek labour market. Our second remark, which returns to the second question, is that there are important differences between regions regarding their sectoral composition. This is true for both total employment numbers and the expansion of what we coin under-employment. For instance, some of the Greek regions seem more resistant to job loss in general, some regions see a sharp rise in part-time employment after the crisis and others do not experience higher part-time employment as a replacement to other forms of employment. Explaining these divergences, we identify four distinct, although not rigidly defined, patterns of under-employment.

> i) Metropolitan regions: precariousness in the urban fabric, flexibilization and expansion in under-employment. Regional productive systems with a high share of tertiary service activities, in particular, can be associated with the rise of part-time work. This increment, coupled with a dynamic expansion in sectors with almost zero levels of underemployment in the pre-recession period (e.g. construction), outweighs some of the loss of full-time jobs in urbanized areas. However, there are important differences between the two metropolitan regions for both periods under study, reflecting the diverse employment outcomes and flexibilization trends in Greece as well as Southern Europe in general (cf. Cuadrado-Roura and Maroto, 2016). It seems that there are heavily urbanized regions that, due to their more backward productive structures, came into a 'low-road' type of flexibilization during the pre-crisis, as here seen in Central Macedonia, while the others, which hold a more diverse industrial composition as well as a nodal role in supra-regional hierarchies and productive chains, such as Athens, witnessed such flexibilization trends after 2008. Similar differences have been confirmed elsewhere, for example between the Italian regions that host Naples and Rome, respectively (Gialis and Leontidou, 2014).

In any case, even though most of the relevant literature findings suggest that stronger regional economies present lower involuntary part-time shares (as in the context of London, see Green & Livanos, 2015; Martin et al., 2016), Attica/Athens, which has a high share of national gross domestic product (GDP; more than 40%), has a higher than national unemployment rate and under-employed labour. This can be attributed to a series of factors, such as the collapse in constructions, as Cuadrado-Roura and Maroto (2016) pinpoint for the Spanish case as well, and the proliferation of part-timers in a range of activities, from typical commercial to knowledge-intensive or even creative economy ones (Avdikos and Kalogeresis, 2016). That being said, metropolitan regions are not necessarily more robust and less crisis-prone, again when seen from a Southern perspective.

> ii) Manufacturing regions: secondary sector's retreat and reduction in under-employment. Almost all Greek regions specialize in industrial sectors that, at the national level, are declining and experience a drop in productivity (INE, 2016). The manufacturing regions, following the country's contemporary orientation in low-cost tertiary services and labour-intensive low-scale production, lack important information technology capacities and advanced financial and insurance services. Enhanced innovative production schemes and practices are also marginal (Kallioras et al., 2016). In the two manufacturing regions analysed above, lots of jobs have been

created during expansion but then 'destroyed' at fast rates, at least faster than other types of jobs during recession; this is in great part a result of the regions' IM, which outweighs both regional advantages and national influence and produces unemployment. The backwardness of Greece's secondary activities, along with the fact that industrial regions usually face harder economic cycles than the service-oriented ones (see i.e. Martin et al., 2016), implies that manufacturing regions are particularly vulnerable. This pattern is evident in the case of Western Macedonia, Greece's energy producer and a region that lacks diversity and strong cross-sectoral linkages, where hundreds of part-timers covering seasonal demand lost their jobs post-2008 (Psycharis et al., 2014).

The 'Great Recession' along with the pressures of economic globalization, falling internal demand and austerity-led state fiscal practices have been detrimental to the manufacturing regions. For example, escalating competition added an extremely high burden upon the more dynamic industrial area of Central Greece and its industrial plants. Many of these plants halted their production. Only a handful of industries, such as food production and processing, maintained certain competitive advantages (Petrakos and Psycharis, 2016; Voulgaris et al., 2015), but production is less export-oriented and thus more vulnerable to a highly volatile domestic market. Due to such reasons, part-time jobs cannot flourish, and unemployment is extremely high in such regions. Therefore, employment increments may lead to part-time labour's consolidation in regions dominated by industrial activities, amid expansionary periods, while employment losses may lead to even more significant contraction of part-time jobs during downturns.

iii) Agricultural regions: continuity of traditional practices and the reproduction of underemployment. Under-employment changes in agricultural regions, either positive or negative, derived from region-specific and territorial factors, despite the sway of national trends on total employment. In particular, the steady presence of part-time workers in agricultural areas is not a new phenomenon, but a deeply rooted economic and socio-cultural practice. This practice is strongly related to factors such as seasonality, familial surviving practices, micro-entrepreneurship and the influx of migrants in the rural localities since the late 1980s (Papadopoulos, 2016). Such patterns seem to be re-enforced in new ways amid the crisis. One interpretation is that it can represent an optimistic 'return to the countryside' movement, considered by some scholars as a solution to Greece's productivity problems and a way to address rural population decline (Hadjimichalis and Hudson, 2014). However, this return is in most cases not a true revival of an agrarian way of life but rather a reproduction of urban employment and consumption patterns. For example, informally hired migrants, typically under-employed but working overtime during cultivation periods, carry out almost all manual tasks. The farmers and those who have returned from the cities, usually members of the farmers' extended families, also engage in seasonal tasks, typically by performing lighter or managerial tasks (Giannakis and Bruggeman, 2015; Papadopoulos, 2016). Through such ways regional competitive advantages related to favourable environmental conditions, local food varieties and the local human capital sustain enduring patterns of social reproduction and under-employment.

iv) Tourism-oriented regions: the resistance of services and commerce to recession and the dispersion of under-employment. Island tourism-oriented regions seem to respond to the rapid changes of the economic environment better than the other groups of regions. However, the redundancies that came in these regions during the pre-crisis period and the subsequent higher relative preservation of remaining jobs after 2009 partly explains these less negative trends. All tourism regions, with the slight exception of the deprived North Aegean, are exceptional cases that should be further scrutinized and contrasted to other island regions across the EU South. Their local endowment comprises picturesque islands and beaches, advanced hoteling infrastructures and an 'entrepreneurial climate', cultivated since the 1960s or so, that prioritizes tourism services above all other activities. The latter draws upon an embedded compromise between employers and employees that keeps the nodal touristic value chains uninterrupted during summertime (Gialis and Leontidou, 2014).

Interestingly, the big hotel owners are among the very few fractions of the Greek political elites that managed to increase their profits post-2008, as the sector witnessed a boom in its productivity due to the combined impact of lower labour costs, increasing arrivals of foreign visitors to the regions and new tax-reducing legislation (INE, 2016; Petrakos and Psycharis, 2016). Such a regional growth engine has strongly influenced under-employment patterns in various ways. For example, thousands of new hirings can be documented across the five-star rated hotels of Rhodes, Mykonos, Chania and other famous tourist destinations of the South Aegean. Many of these workers are officially under an internship scheme, but they work for more hours than officially declared, doing all kinds of jobs (Adam and Papatheodorou, 2016; INE, 2016). Thus, resilience to recession does not necessarily mean good and sound employment standards, but rather various combinations of under-employment and precarious employment practices.

To answer our third question, we will now highlight some certain mechanisms that drive the trends of under-employment and might be useful for cross-national comparisons. For this, we interpret the four patterns of under-employment change documented above, by using relevant theoretical inputs and secondary sources. Overall, we argue that these patterns are shaped by three interrelated causal mechanisms that act discretely and unfold across various geographical scales, producing divergent regional responses. These mechanisms, that have wider implications for all countries of the EU South, are the following.

The first mechanism is the one of capital restructuring and technological change. In the case of Greece's regions, such change is mostly evident through a series of productive-technological inadequacies highlighted for both manufacturing and the construction industry (cf. Cuadrado-Roura and Maroto, 2016; Warren, 2015). These inadequacies have a rich background and are not a new phenomenon; Greece, along with Portugal and many other regions in the Spanish and Italian South, never went through an innovative transformation able to reverse its labour-intensive semi-dependent secondary structures, lack of strong institutions and long-term planning, as occurred in other countries (Gialis and Leontidou, 2014; Hadjimichalis and Hudson, 2014). The escalating global competition and the structural imbalances of the Eurozone that surfaced in the post-2000 period proved that Greece's productive sectors and regions were very weak. In addition to this, they also had to confront the post-2008 turbulence.

Intense fixed capital devaluation and falling industrial capacity seemed inevitable, and has been accompanied by an intense fall in domestic consumption for 2009–2012 (INE, 2016). The combined impact of negative trends in manufacturing and construction has several negative effects upon the overall economy and employment. One of these effects is the fluctuating under-employment produced by the (mostly negative) regional structural compositions, plus the sharply negative NS effect. As seen above and documented elsewhere, many firms and sectors do make a 'marginal living' by occasionally underutilizing precarious labourers or family helpers (Ergani, 2016; Labour Inspectorates, 2012). Under such terms, the 'relative endurance' of the agricultural regions and the robustness of tourism regions look more important than they really are. Hence, the impact of outdated technology and specializations and the lack of production adaptability upon expanding under-employment is evident across Greek regions, and in particular those regions that specialize in manufacturing (cf. Hadjimichalis and Hudson, 2014; Kallioras et al., 2016; Polyzos et al., 2013).

The second underlying mechanism has to do with market-driven organizational dynamics and changing priorities. This mechanism determines the changing analogies between the appropriation full- and part-time jobs by firms amid crisis. New organizational practices and market responses to the recession have not only produced a transition to under-employment for some workers, but also an expansion of working hours for others, as seen for the metropolitan and tourism regions. New organizational practices and market responses have also seemed to produce negative prospects for those that enter the labour market seeking a full-time job. In many cases, overtime and very-few-hours work coexist in a close symbiotic relationship and are being utilized upon the same groups of employees. Such trends have been verified in other national and regional frameworks as well (cf. Warren, 2015, for the UK; Barbieri and Scherer, 2009, for Italy; Horemans et al., 2016, for various settings). Typically, full-time jobs are temporarily replaced by part-time jobs until peak demand is restored (cf. Labour Inspectorates, 2012). This is mostly prevalent in commerce and trade (e.g. supermarkets or coffee places) or hotels that need a buffer of flexibly available low-paid employees, either part-timers or overtime workers. Furthermore, the proliferation of under-employment is not merely an organizational choice of the big employers. It can also be the result of an extensive 'gig-economy' and related subcontracting patterns that are expanding in metropolitan areas of the Southern EU. Thousands of smaller firms and micro-entrepreneurs take advantage of these employment schemes (Avdikos and Kalogeresis, 2016).

Workers that try to preserve their jobs and exhibit commitment in a time of cutback are tolerating frequent interchanges between periods of (often informal) overtime work and under-employment; in other cases, they are accepting a part-time contract with the promise of a full-time job after capacity is restored. Thousands of contracts, registered by the Ministry of Employment, have been converted from full-time to part-time after 'mutual employer-employee agreement', serving as examples of new organizational practices (Ergani, 2016; INE, 2016). These precarious patterns are even more prevalent in the tourism-based regions, which face high seasonal variability in demand and need a cheap and abundant labour force, and they are also diffused in the metropolitan areas (Gialis and Tsampra, 2015; Veliziotis et al., 2015).

Finally, the third mechanism that cuts across all groups of regions, despite the divergent responses shown in this paper, has to do with the changing institutional and welfare provisions. Recent regulatory reforms, imposed by the common EU-IMF-Greek State memoranda, highly increased employment precariousness in Greece[11] as well as in other Southern EU members. Among other reasons, involuntary part-time work is expanding due to the severely reduced wage levels offered through this employment form[12], as the average wage of a part-timer in Greece is in most cases below 300 Euros per month (Copus et al., 2015; INE, 2016). In addition, the successive reforms, cutbacks in

[11] For example, a new law (3846/2010) gives extra incentives to firms that experience adverse financial and economic conditions to impose 'alternate work' schemes by distributing reduced capacity among their existent workers and equally reducing their work-time and payment.
[12] All wages in Greece have been reduced by 35%, on average, compared to pre-2008 levels. For example, the gross minimum wage has been set to 540 Euros for young workers, an amount far below both the low-pay and the poverty threshold (set to 66.6% and 50% of the median full-time hourly wage of 8.5 Euros per hour, respectively) (Kretsos and Livanos, 2016).

welfare provisions and removal of dismissal restrictions have made the already weak part-timers even more cheap and vulnerable with no power to negotiate.

Conclusions

This paper suggests that a strong geographically differentiated connection between regional restructuring, specialization, and precarity, is turning underemployment into an integral dimension of the contemporary flexibilization of work. As seen in the Greek regions, this connection is differently manifested across different specializations, yet it is based on the same underlying powerful mechanisms that transform contemporary socio-spatial entities according to new accumulation priorities (Hadjimichalis and Hudson, 2014). Asynchronous under-employment expansion trends seem to be more an outcome of regional competitive advantages than a result of the local mix of industries. This subsequently produces regional settings that encourage the use of low-waged part-time work. This is mostly prevalent in the tourism-oriented regions where abundant pools of fluctuating labour surplus were stagnant pre-crisis, but heavily exploited amid recession.

Under-employment as a phenomenon calls for urgent attention, as it holds various unexplored ramifications with other new phenomena, such as the so-called NEET (i.e. those that are 'not in employment, education or training'). Many among the under-employed in Greece and Southern EU face a vicious cycle of disadvantage as they frequently alternate between unemployment and under-employment, unable to find a more stable and prosperous job. Wide segments of the population are pauperized and consequently become socially alienated, with a large number of households having just one or no employed members. This insecure state of periodic employment also impedes the advancement of workforce skills, reducing the quality of the Greek domestic labour market. An inactive labour force with slim chances of a fast re-entry to their profession, or even to a job in general, in conjunction with the mostly low-quality lifelong learning programmes offered, make the conditions for a rapid expansion of long-term labour underutilization. Particularly for middle-aged workers, that means an early and involuntary retirement, which hacks their pension levels when the time for their actual retirement comes. The deterioration of domestic labour markets has also caused a serious brain drain (Adam and Papatheodorou, 2016). Not surprisingly, talented young people are fleeing Greece, leaving an ageing workforce behind. This implies an inevitable obsolescence of the labour force, but also increased pension expenditures in the future, not least in the context of a social security framework that has already been struggling for years. Under-employment constitutes a reality for the labour force in many states across the world. The exacerbation of domestic and international inequalities has led to an environment of stark socio-economic segregation and polarization, paving the way for an era of political instability in the EU and beyond. Labour reforms, imposed by a neoliberal agenda and an austerity-directed mentality, are central political issues internationally as eloquently depicted in the recent US elections and the Brexit decision. Only time will tell how and when under-employed workers of these or other countries will react. In any case, their agency against precariousness will be region-specific and path-dependent, in contrast to the ambiguous applicability of reforms and political decisions that ignore region-specific structures.

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Chapter 4

Dismantled spatial fixes in the aftermath of recession: Capital switching and labour underutilization in the Greek capital metropolitan region[13]

Introduction

The recent economic crisis, commonly cited as the most significant depression since the 1930s, has put a definitive end to the smooth and mostly robust capitalist reproduction of the post-war era (Harvey, 2011). What started in 2008/2009 as a liquidity crisis in the US, was soon transferred to the EU and turned into a sovereign debt crisis mainly affecting the countries of the southern European Union (Palaskas et al., 2015). This article engages with issues of capital switching and labour underutilization in the Greek regions, focusing on the capital metropolitan region of Attica (Athens). Based on an empirical analysis that is theoretically informed by radical political-economy approaches, the article traces the evolution of part-time waged work, an expanding form of underemployment, and links it with shifts in capital flows from production to the built environment and vice versa, prior to and during the recession. Though many scholars have analyzed the why and how of the Greek crisis, only few have discussed and substantiated its spatialized foundations and contradictions, especially concerning labour and crisis-triggered employment forms (see Polyzos et al., 2013; Psycharis et al., 2014; Kallioras et al., 2016). The interconnections between changing spatial fixities (emerging through capital switching and under the impact of recessive pressures) and consequent labour underutilization remain overlooked, as are the commonly ignored dimensions such interconnections hold for urban space restructuring in the metropolitan regions of the southern EU (for the UK context, see Martin et al., 2016).

Urban underemployment is commonly acknowledged as a form of 'hidden unemployment' that threatens the quality and performance of affected labour markets. Yet metropolitan regions (also named city-regions)[14] are part of a common narrative for their supposedly 'strong and resilient' labour markets, which adapt faster and more effectively to employment fluctuations and are less vulnerable to work and worker devaluation (see Maroto, 2012; Beyers, 2013; Green and Livanos, 2015; Cuadrado-Roura and Maroto, 2016; Martin et al., 2016). The statement in the previous sentence is tested in the empirical part, counting in the distinct characteristics of Greek labour markets, with its traditionally expanded atypical forms, which have been in deep crisis since 2009. Our theoretically informed empirical analysis aims to examine waged labour turnover rhythms in Attica and compare these findings with findings for the rest of the country, while exploring potential capital switching in comparison to recent accounts by Christophers (2011) and Kutz (2016) on this matter. The results of this analysis are contextualized within the frame of a domestic production model that has diachronically favoured construction at the expense of 'real production'. Moreover, the results are

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[14] These are defined here as 'NUTS 3 regions or a combination of NUTS 3 regions which represent all agglomerations of at least 250 000 inhabitants' (Eurostat, 2017).

scrutinized vis-à-vis the changing fixed capital formations of the vulnerable Greek secondary sectors (manufacturing and construction).

Metropolitan Attica embodies the regional unevenness and other contradictions of the Greek socioeconomic formation better than any other geographical and administrative entity (Palaskas et al., 2015). An examination of its socio-spatial and labour deterioration may add interesting dimensions to the impact of crises upon contemporary urbanization and existing spatial fixes, while offering possible solutions. The capital region, which includes the capital Athens, has the country's largest regional economy. The largest part of national employment and waged work is located here. Our analysis explores fluctuations in part-time waged employment figures, as these are a good proxy of time-related underemployment, constituting more than half of total part-time labour and thus indicating labour underutilization and increased labour turnover pace. Part-time work is a pivotal form of flexibilization and precariousness across the EU's cities and regions (Gialis and Leontidou, 2014; Mavroudeas, 2014)[15]. Relevant international literature engages with similar types, such as total (i.e. waged and non-waged) part-time or non-voluntary flexible work (see Nickell, 1997; Peck and Theodore, 2000; Green and Livanos, 2015; Kallioras et al., 2016), but hardly follows the peculiarities and spatialities of waged underemployment in the southern EU, nor does it discuss its dialectic with capital investment.

This article aspires to contribute to the literature in four ways. First, it serves as a methodologically coherent account of the impact of recession, which goes beyond the limitations of usual spatially insensitive 'total employment' accounts to examine how other forms of work are related to capital restructuring in the urban arena. Secondly, we establish a link between capital switching and shifts in labour turnover time, as relevant debate has mostly left the notion of labour aside, treating it as an abstract category. Thirdly, we offer a crucial case study, since metropolitan Athens is one of the most significant urban regional agglomerations of the Balkan peninsula and part of the overlooked southern EU context. Finally, it is intended as a contribution that responds to recent calls for an exploration of the role of shorter-run regional changes (see Davies, 2011: 12) and their observable impact on existent spatial fixities, and on socio-spatial unevenness in general. Overall, the article attempts to document that there is an empirically grounded relation between fixed capital formations in various investment products and dispersed pools of surplus labour that should be not underestimated in critical literature.

The article is structured as follows: the second section identifies the salient theoretical links between crisis, labour underutilization and changing spatial priorities of different segments of capital, while also delineating the key geographical political-economy concepts. The third section investigates changing fixed capital formations in Greece over the extended period prior to and during the recession, from 1995 to 2016. It then traces the evolution of part-time waged work in the capital metropolitan region of Attica (Athens) in comparison to other regional labour markets, focusing on the turbulent period from 2005 to 2012. Our findings are contextualized in section four, where the notion of 'disrupted' capital switching is discussed, while some sociopolitical remarks of wider significance are presented in the conclusion.

[15] Other forms of contemporary labour, such as the dispersed self-employment practices in Greek and southern EU cities that often conceal dependent work, will be discussed in a separate forthcoming article for reasons of analytical clarity and because of space limitations here.

Theoretical framework: Changing fixed capital formations and underemployment in crisis-hit urban regional labour markets

Studying changes in total employment alone cannot reveal aspects of spatial unevenness that crisis pressures generate. Recession, accompanied by increasing economic competition, results in alternative forms of employment, primarily in the form of flexible or underutilized labour (Theodore and Peck, 2014). The geographical variation of labour turnover rhythms, which alter and emerge as part of a wider capital restructuring, are directly linked to the economic geography of crises and should not be neglected.

Regional and urban variations of waged underemployment are an outcome of changing spatial divisions of labour and present important fluctuations that apply to business cycles (Cudrado-Roura and Maroto, 2016). Particular sectors seem to be more prone to business-cycle swings than others. Manufacturing and construction activities, in particular, are predisposed to harsher fluctuations than most other services (Maroto, 2012; Beyers, 2013). Recessive pressures exacerbate such characteristics, and discrepancies render sectoral power balances a temporal issue. For instance, the recent housing market bubble and state budget cuts in infrastructure have reduced the average labour turnover time of construction firms and led to a remarkable precariousness that has been dominated by subcontracting practices and low-quality, poorly payed, insecure work in the sector (Maroto, 2012). Therefore, emerging sectoral compositions can reshape a regional labour market's 'advanced situation and quality', facilitating the expansion of underemployment therein.

A large part of contemporary debates on labour engages with the notion of resilience and adaptiveness amid volatile economic conditions. Regional labour markets' resilience derives from their intrinsic sectoral, local and geographical traits. Yet these characteristics are a product of adaptiveness in terms of flexible employment in general, and underemployment acquisition in particular (Armstrong et al., 2014). Simultaneously, a metropolitan region's distinct socioeconomic climate (increasing profitability rates, efficiency of local educational institutions, proper regional policies, quality of institutional support to secure growth and expansion, and more; see Krugman, 2005) may be the product of flexible employment utilization as much as it is the outcome of changes in overall employment.

Furthermore, economic crises exacerbate the regional (under)employment disparities generated by spatial divisions of labour, eroding diachronic traits in the local labour market and (re)creating labour surpluses. Such crises are generally resolved through spatial fixes – the spatial consolidation of fixed capital formations functioning as a gateway for idle capital. The aspect of the 'fix' here takes up a metaphorical connotation, as 'it is the burning desire to relieve a chronic or pervasive problem' resembling the struggle of a drug addict (Harvey, 2011). Spatial fixes, however, represent a 'blessing and a curse' for capitalism: territorialization binds capital, immobilizing it for an extended time, creating the very conditions for a further wave of recession. Spatial fixes are realized, among others, through capital switching from the primary circuit (industrial and manufacturing production) to the secondary circuit (land, real estate, housing and the built environment); this switching has historically occurred after overaccumulation of capital in manufacturing. It represents not only a post hoc response to recessive pressures, but also a conscious strategy to exploit opportunities in the built environment (Harvey, 1978; Christophers, 2011; Kutz, 2016). Capital switching and consequent spatial fixes are crucial forces in the production of space; this segmented multiplicity of spatial fixes accumulating and declining over time shapes 'valleys' of devaluated spaces, which in themselves constitute opportunities in the built environment in the form of rent gaps, thereby generating further unbalanced growth and spatial fixes (Smith, 1987). This vicious cycle – often disrupted by other socio-spatial antinomies as documented below – represents an inherent contradiction of capitalism, which has to build (fix) landscapes for capital to produce surpluses and flows, only to subsequently destroy them (Harvey, 1978).

Regarding the geographical scale at which the above dynamics unfold, parts of academia interpret space as fragmented, paying most attention to the national level, hence the centrality of the state in their analyses (Kornelakis and Voskeritsian, 2014; Mavroudeas, 2014). Harvey proposes a more dialectical approach, where capital flows are central, without disregarding the role of the state, which is gradually being transformed through upgraded international and supranational institutions (Harvey, 2011) that are directly involved in the production of space and the regulation of commodity and labour markets. A brief background of the role of EU-scale power geometries for Greece and other countries of the Eurozone is illuminating: it reveals how and when southern regions have not managed to 'grasp the benefits' of intra-euro area trade since the adoption of the common currency on the supranational scale (Hadjimichalis, 2011). Integrated EU policies, commonly theorizing regional performance as an issue of absolute competitive (dis)advantage while ignoring important issues of hierarchy and unevenness, have stripped nation-state legislative frameworks of necessary tools such as monetary devaluation, national employment protection and provision of investment incentives, leaving the unit labour cost as the ultimate factor of regional competitiveness. Effectively, the operation of free market mechanisms exacerbated the inequality of value flows and dismantled full employment, which has led to highly negative effects across various subnational entities. Within this context, the urban fabrics of the South have become more vulnerable to precarious labour expansion (Deraniyagala and Fine, 2001).

Urban labour structures in Greece, Spain and Italy incorporated high levels of flexibility and informality long before the crisis, albeit categorized by EU accounts as 'rigid and inflexible'. Moreover, atypical and underutilized work further expanded amid the recession (Gialis and Leontidou, 2014). Recent studies on Greece have focused either on specific sectors or workers' perceptions of part-time employment (Giannikis and Mihail, 2011); these and other, mostly indirect, empirical investigations indicate the persistent role of labour underutilization and relevant forms of work (see Demekas and Kontolemis, 1996; Katsimi, 2000; Christopoulos, 2004; Mitrakos and Nicolitsas, 2006; Lolos and Papapetrou, 2010; Bakas and Papapetrou, 2014; Psycharis et al., 2014). Most studies point out that underemployment is evolving into an important segment of the domestic labour market with a highly uneven degree of sectoral and regional dispersion (Livanos and Zangelidis, 2013). Yet they do not illuminate the deeper casual mechanisms that support these trends, nor do they show the connection between changing spatiotemporal fixities and changes in labour turnover times.

Methodological considerations

Below, we follow a methodological approach across three different steps, each of which is related to a distinct geographical scale (namely, national, regional and intra-regional) to examine capital switching in Greece and its potential interconnection with urban underemployment[16], comparing

[16] Underemployment is equated with part-time waged work. Our methodological choice to include voluntary part-timers in the analysis – unlike other relevant studies (see Green and Livanos, 2015) – is based on the qualities inherent in the Greek paradigm, such as high levels of involuntary part-time labour, the fact that most part-timers' salaries fall below the poverty line, and that the positions offered are mostly precarious, temporary and low in the hierarchy (Ergani, 2016). Yet, even such a definition of underemployment may hold limitations, as it neglects to capture several dimensions of the phenomenon (for example, informal and very precarious workers). However, it is adopted here for reasons of clarity and as reliable data are available. It has

findings for the capital metropolitan region with those for all other Greek regions combined. First, we examine the national figures for gross fixed capital formation (GFCF) by investment product to identify whether capital switching has taken place in Greece. For this, we use the Building Share Index: this is the share of GFCF in the built environment (housing plus other construction) in total GFCF (investments in all products minus those in agriculture, forestry and fisheries) plus labour expenditure[17]. Based on the methodological accounts offered by Christophers (2011) and Kutz (2016) we provide accounts of capital switching, and thus of crisis-triggered changes in existing spatial fixities. Labour expenditure is included as 'real production' (Harvey's 'primary circuit' – see Harvey, 1978) to incorporate fixed assets in its realization, as well as labour (i.e. variable capital) utilized. Because of the cyclical rhythm of investments in the built environment (which may comprise cycles of 20 to 25 years – see Harvey, 1978) and based on background information, the timeframe we use in this study refers to an extended period prior to and during the recession (from 1995 to 2012), covering almost 20 years of differing accumulation trends and common EU policies (such as convergence programmes, the flexicurity agenda, the Treaty of Lisbon and the First Economic Adjustment Programme or first memorandum) that had a severe effect on Greece's socioeconomic formation.

We then rescale our analysis by investigating waged underemployment concentrations in the capital metropolitan region vis-à-vis the rest of the country and conduct controlled comparisons between part-time and full-time waged employment for all sectors in Attica. Concentrations are measured on the basis of the location quotient (LQ)[18]. We divide our research into two periods: 2005 to 2008 (which covers the pre-crisis years right after the 2004 'merriment' of the Greek Olympic mega-projects, financial speculation and related investments), and 2009 to 2012 (which includes the first years of economic depression after the Eurozone crisis and the implementation of the first memorandum). Data are divided across nine grouped sectors: Sector 1 refers to primary production, Sectors 2, 3 and 4 to secondary activities and Sectors 5 to 9 to tertiary activities[19].

Finally, we link the two previous steps to investigate GFCF volume by sector vis-à-vis waged underemployment percentages within Attica. We do so to complement national-level results with a concrete estimation of capital switching processes at the intra-regional level, and specifically to examine their impact on labour markets and turnover time in the manufacturing and construction sectors. Sectoral figures are preferred over the LQ index here as more suitable for investigating

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to be noted that the Greek Statistics Authority (HELSTAT) identifies part-time status on the basis of employees' answers in this matter.

[17] GFCF is used in these few recent accounts in this field as the main relevant proxy index for capital switching, and it is based on available data here. Unfortunately, data on GFCF by investment product and labour expenditure are not available at the regional level, although these are used as proxies of switching in the Greek capital metropolitan region, which comprises the majority of domestic construction activities and hosts the largest part of the labour force.

[18] The location quotient (LQ) is mainly used in economic base theory to reveal particular regional attributes in comparison to national attributes. The LQ is computed as a regional industry share divided by the respective national share. When LQ values are higher than 1 (that is, when they are above the usual cut-off value of 1.20), then the industry is overrepresented in the region.

[19] Sectors 2, 3 and 4 represent manufacturing, construction and energy activities, respectively, which have a standalone presence in the Greek economy. Likewise, public services, fall under Sector 8, alongside health and education, allowing us to distinguish between these and other tertiary activities such as commerce and services (Sector 5). The remaining sectors are the hospitality industry (Sector 6), leisure and arts activities, household activities as employers, and activities of extraterritorial organizations and bodies (Sector 9), as well as the urbanized knowledge economy sector (Sector 7) – the latter accounting for a significant share of contemporary urban waged labour.

temporal changes. The timeframe considered here is the same as for the second part (namely, 2005 to 2012).

A comparative analysis: Waged underemployment, capital switching and spatial fixities in the capital metropolitan region of Greece

Disrupted capital switching in Greek socioeconomic formation

Capital displacement between manufacturing and construction implies a change in the dialectic relation between the primary and the secondary circuits of production. Figure 4.1 shows the development of building share over time. It draws a surprising picture, as the building share had already been extremely high since 1995 (remaining above 25% until 2007), while absolute construction investments are higher than the rest combined. This trend may be divided into two distinct periods: during the first period (from 1995 to 2007) it remains stable or shows a slight decrease, with some noteworthy fluctuations after 2001, while during the second period (2008 to 2012) it falls sharply – a continuing trend, as is visible from the most recent figures (HELSTAT, 2018).

Interestingly, a careful examination of the first period reveals two cases of disrupted capital switching, namely from 2002 to 2004 and again from 2005 to 2007. The first appears to be a typical case of capital displacement, during which an increasing building share (from 23% to almost 27%) is coupled with an absolute increase in construction (almost one third of the initial volume increment), as well as a decrease in all other investments (HELSTAT, 2018). It represents a way out for idle capital and a logical market response to improved investment opportunities in the built environment (as per Harvey's second capital switching explanation – see Harvey, 1978: 116), further reinforced by the construction activity peak before the 2004 Olympic Games. The second case (from 22.5% in 2005 to 25.2% in 2007) was generated by what appears to be a continuing housing bubble, as inflation of gross capital formation in housing stops abruptly in 2007 (HELSTAT, 2018), leading to a decrease in the building share. The latter case affirms the theoretical standpoint that capital displacement is a last resort for postponing imminent recessive shock, which in the case of Greece came just a year later, in 2008.

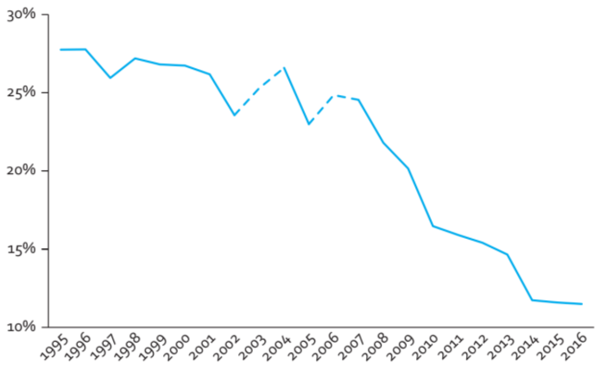


Figure 4.1: Construction (building) as a share of total GFCF investments (minus agriculture, forestry and fisheries) plus labour expenditure

Source: HELSTAT, 2018, national figures 1995–2016.

Interestingly, the development of gross operating surplus and mixed income follows the same trajectory as GFCF in both cases (from 90 million euros in 2002 to 110 million euros in 2004, and to 130 million euros in 2007 after a short hiatus in 2004/2005 – see Eurostat, 2018), indicating that capital switching is coupled with overaccumulation tendencies (see Kutz, 2016). Yet they represent a disrupted and shorter-run version of switching. We call this version disrupted, as it was subject to the triple effect of the already very high level of investment in the built environment compared to other types of investment, the termination of the 2004 Olympic Games and associated construction activity, and the start of the global recession and the ceasing of mortgage lending.

A comparison of the findings above with relevant research reveals that, whereas the building share in Greece fluctuated from 24.5% to 28% before receding in 2007, comparable figures in Spain and the UK are notably smaller, ranging from 17% to 21% (for the period from 1995 to 2007) for Spain and from 10% to 12.5% (for the period from 2000 to 2007) for the UK. Notably, in both these countries, as well as in the US, absolute volumes of construction investment were clearly lower than other fixed capital formations, while our findings for Greece indicate that the former clearly surpassed the latter, at least until 2014 (HELSTAT, 2018). Even though volatile investment behavior in the built environment in our research partly indicates that investment volumes in Greece are notably smaller than those in the Spanish or UK economies, the changes we have recorded take place over a shorter period (around two years for each case of capital switching), clearly demonstrating their significance (Christophers, 2011; Kutz, 2016). Nonetheless, the similar trajectory of the building share in all three countries suggests the development of large-scale housing bubbles. Despite their time of emergence (Kutz places this around 2000, while Christophers places it around 2003), all burst in 2007, validating Harvey's (1978) thesis.

The persistency of investments in the Greek built environment, which dominate over other investments until 2014 (HELSTAT, 2018), can be read as an attempt of the domestic production model that was already heavily relying on this sector to further enhance its productivity (Harvey, 1978). This is evident until 2001 in particular, as relevant investments after 2001 are mainly housing-related (HELSTAT, 2018). Furthermore, fluctuations in the building share can be attributed to smaller investment volumes in the Greek economy; however, total share increases in Spain and in the UK differed by a few percentage points only and occurred over a period of ten years. In Greece, by contrast, incremental changes occurred over a period of two years and were disrupted owing to the triple effect described above.

Further data are also illuminating in this matter: the starting point of the housing explosion can be traced back to 2001, with a short pause in 2004/2005. This pause in building activity had an effect on both periods considered in this article. Generally, however, the housing investment share showed continuous uninterrupted growth at a higher rate than that of other construction investments until 2007 (HELSTAT, 2018). This, in turn, led to an explosion in housing prices (Bank of Greece, 2018). The year 2008 stood out as a year of transition for the real-estate market, as after this, house prices fell sharply, projects remained unfinished and construction activity stalled (Alexandri, 2015). The precipitous short suspension, caused by a stalling of other construction rather than housing (HELSTAT, 2018), suggests the disrupted capital switching highlighted above. Overall, the growth of the pre-crisis years reproduced a diachronic Greek model during which construction veiled overaccumulation and other structural deficits of production. The imminent Olympic Games, the EU-funded upgrade of national infrastructures, as well as the boom in mortgage loans regulated capital displacement between production and construction, and hence the building share, during the pre-crisis period.

Waged underemployment in Attica and all other Greek regions
Table 4.1 shows a comparison of Attica and all other Greek regions (Table 4.1 groups other regions together and presents their value ranges and averages). Figure 4.2 represents figures by sector to reveal what is more or less known: that regional labour markets in Greece collapsed during the years of the recession (2009–2012) and that unemployment rates skyrocketed. It also shows a general trend of part-time waged employment expanding over full-time work in the capital metropolitan region, as well as in the other Greek regions (INE, 2016). Although figures for total and full-time waged employment show a similar downward trend, figures for part-time waged employment seem more region-sensitive. Labour underutilization and turnover rhythm figures are far higher for the capital metropolis than for the other regions, as reflected by the figure for waged underemployment (8.3%), which is among the highest countrywide. Thus, underemployed labourers are over-concentrated in Attica, especially after the end of the switching period and after the onset of the crisis, while unemployment rate is also extremely high (25.8%) in the area (see Figure 4.1 and Table 4.1).

Waged employment amounts to 78% of total employment, higher than in any other region, and the only one above the national average, setting the benchmark for this type of employment nationally (65%) (INE, 2016). Interestingly, the bulk of rapidly expanding waged underemployment is absorbed primarily by the construction industry (once known as the 'strongest industry of the Greek economy' and currently becoming an 'extreme case' of simultaneous labour-market collapse and inflation of waged part-timer numbers) and in second place by the manufacturing industry. These sectors have been found to be the most vulnerable, with waged employment being reduced in general and underemployment expanding due to recession. Key sectors of the Greek urbanized economy, such as hospitality and commerce, are also undergoing a fast-paced process of labour underutilization, although less significant when compared to the relevant rates in the other sectors.

Attica, as the capital, has a more integrated, dynamic and tertiarized economy compared to the rest of the country's regions (INE, 2016), but underutilization trends after switching and as a result of the crisis are clearer here. Waged underemployment expanded in all sectors and at a much faster rate than in the other regions, while employment shrinkage became more extensive (see Green and Livanos, 2015, for a description of similar developments in London). Ultimately, figures for Attica indicate that it is generally more vulnerable than the other Greek regions, despite it being the main metropolitan region. The decisive factors that determine levels of unemployment are structural and in one way or another related to idle capital and internal production and labour devaluation (Gialis et al., 2017). The only sectors where job loss figures seem lower than average are commerce, transportation and communications, and public administration, health care and education (the latter being heavily funded by the state). Even the knowledge economy, which would be expected to perform better in metropolitan areas, is not exceptionally dynamic (see Figure 4.1 and Table 4.1).

Table 4.1: LQ index per sector for total, part-time and full-time waged employment, plus total employment change (%) for Attica and all other regions

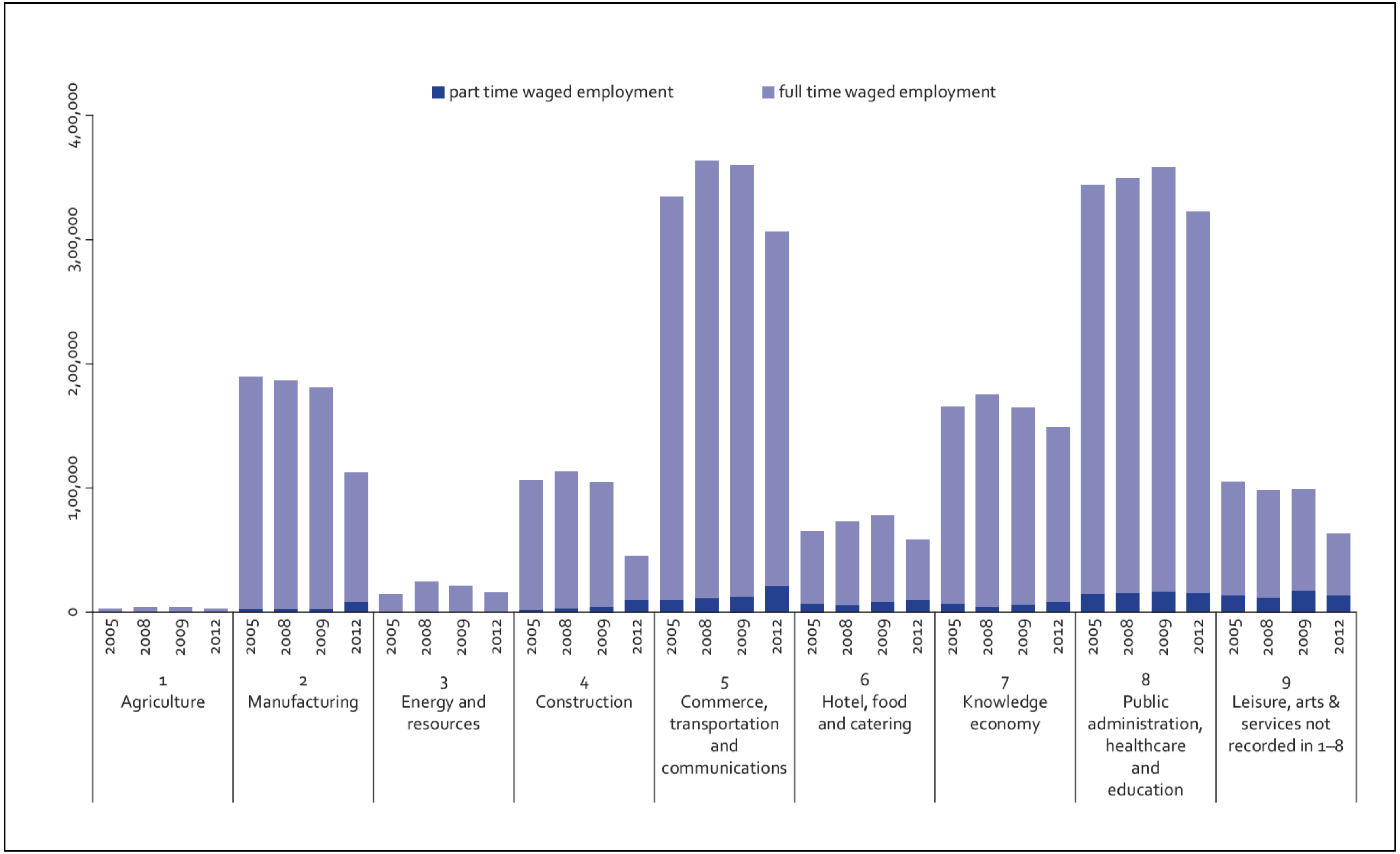
Attica	**Part-time Waged Employment**				**Full-time Waged Employment**				**Total Waged Employment**				**Total Employment Change (%)**	
Sector	**2005**	**2008**	**2009**	**2012**	**2005**	**2008**	**2009**	**2012**	**2005**	**2008**	**2009**	**2012**	**2005-2008**	**2009-2012**
1 Agriculture	0.05	0.19	0.14	0.13	0.18	0.22	0.18	0.15	0.17	0.22	0.23	0.23	51.5%	-15.5%
2 Manufacturing	0.76	0.96	0.89	1.16	0.92	0.95	0.98	0.92	0.92	0.87	0.85	0.67	-3.2%	-35.4%
3 Energy & resources	0.00	0.00	0.36	0.57	0.81	0.86	0.81	0.73	0.81	1.31	1.16	1.07	71.0%	-24.0%
4 Construction	0.89	1.05	1.10	1.31	0.92	0.86	0.87	0.78	0.92	0.94	0.88	0.49	0.2%	-50.8%
5 Commerce, transportation & communications	1.00	1.11	0.99	1.00	1.15	1.16	1.15	1.21	1.15	1.19	1.19	1.29	7.3%	-18.8%
6 Hotel, food & catering	0.96	0.96	0.95	0.86	0.78	0.85	0.86	0.78	0.79	0.85	0.92	0.87	15.2%	-22.4%
7 Knowledge economy	1.38	0.96	1.07	1.19	1.33	1.34	1.30	1.33	1.33	1.35	1.28	1.48	5.9%	-7.9%
8 Public administration, health care & education	0.93	0.97	0.93	0.86	0.89	0.85	0.87	0.90	0.89	0.86	0.89	1.02	1.4%	-10.3%
9 Leisure, arts & others not recorded above	1.18	1.15	1.25	1.12	1.26	1.28	1.26	1.13	1.24	1.11	1.13	0.92	2.1%	-32.1%
Type of employment (total)	1.14	1.01	1.08	1.23	1.22	1.21	1.21	1.23	1.22	1.21	1.21	1.23	4.6%	-21.1%

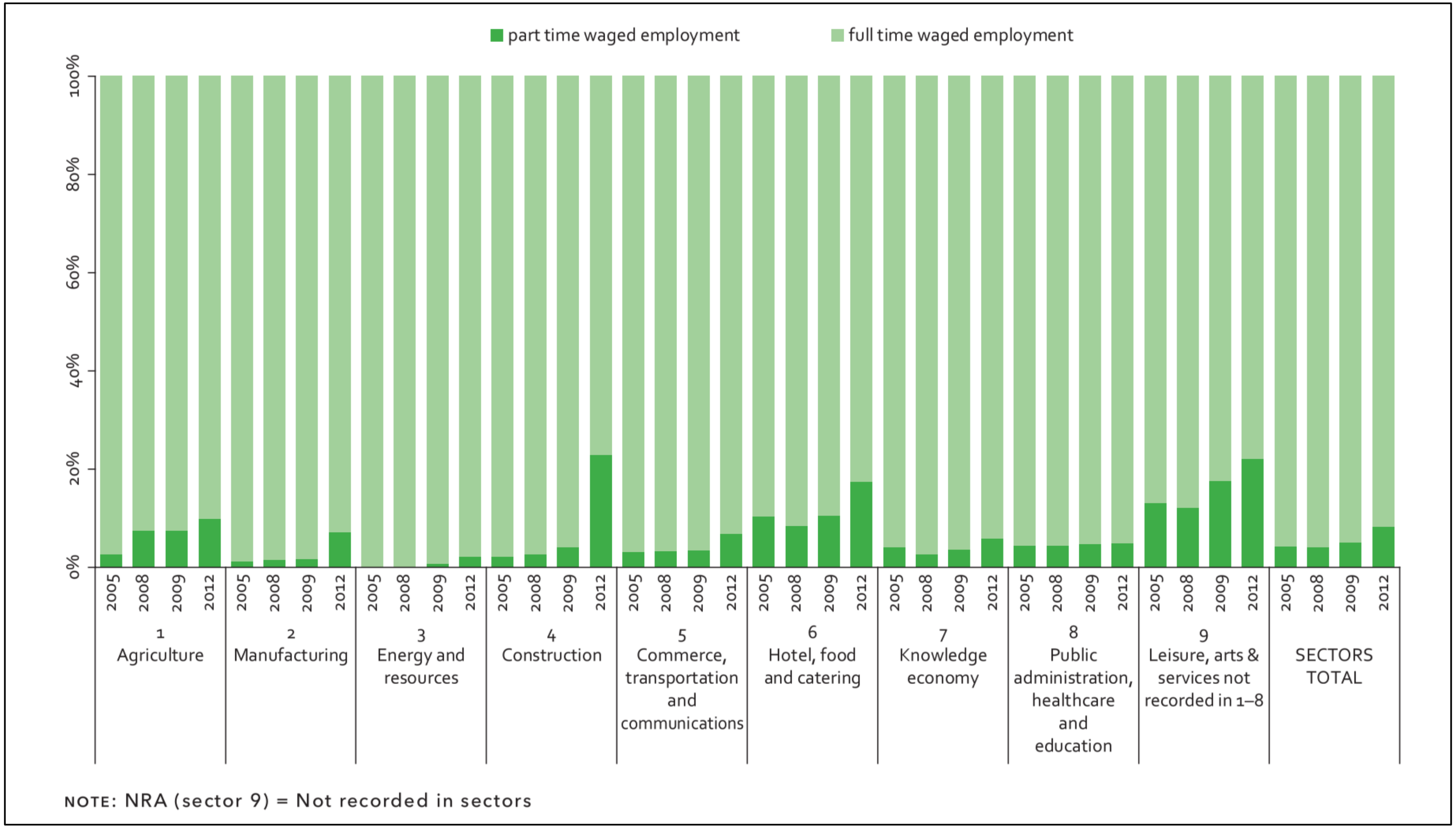
Other Regions	**Part-time Waged Employment**				**Full-time Waged Employment**				**Total Waged Employment**				**Total Employment Change (%)**	
All sectors	**2005**	**2008**	**2009**	**2012**	**2005**	**2008**	**2009**	**2012**	**2005**	**2008**	**2009**	**2012**	**2005-2008**	**2009-2012**
Minimum values	0.62	0.48	0.53	0.44	0.68	0.71	0.67	0.72	0.69	0.73	0.68	0.73	3.2%	-17.6%
Maximum values	1.03	1.24	1.18	1.38	0.96	0.94	0.97	1.00	0.96	0.95	0.97	0.96		
Average values	0.95	0.98	0.92	0.94	0.92	0.94	0.94	0.93	0.92	0.94	0.93	0.93		

NOTES: (1) Colour legend for rate values: values close to the median are shown in yellow, figures above the median are indicated in shades of green and values below the median in shades of red. (2) Sector 9 includes leisure and arts activities, services not recorded in Sectors 5, 6, 7 and 8, household activities as employers, and activities of extraterritorial organizations and bodies. (3) Values (Other Regions)

Source: Authors' calculations, based on labour force survey data (HELSTAT, 2017)

Figure 4.2: Part-time and full-time waged employment balance band per sector – absolute figures (in blue) and percentages (in green), for Attica





Source: HELSTAT, 2017

Investment flows and waged underemployment in Attica's vulnerable sectors

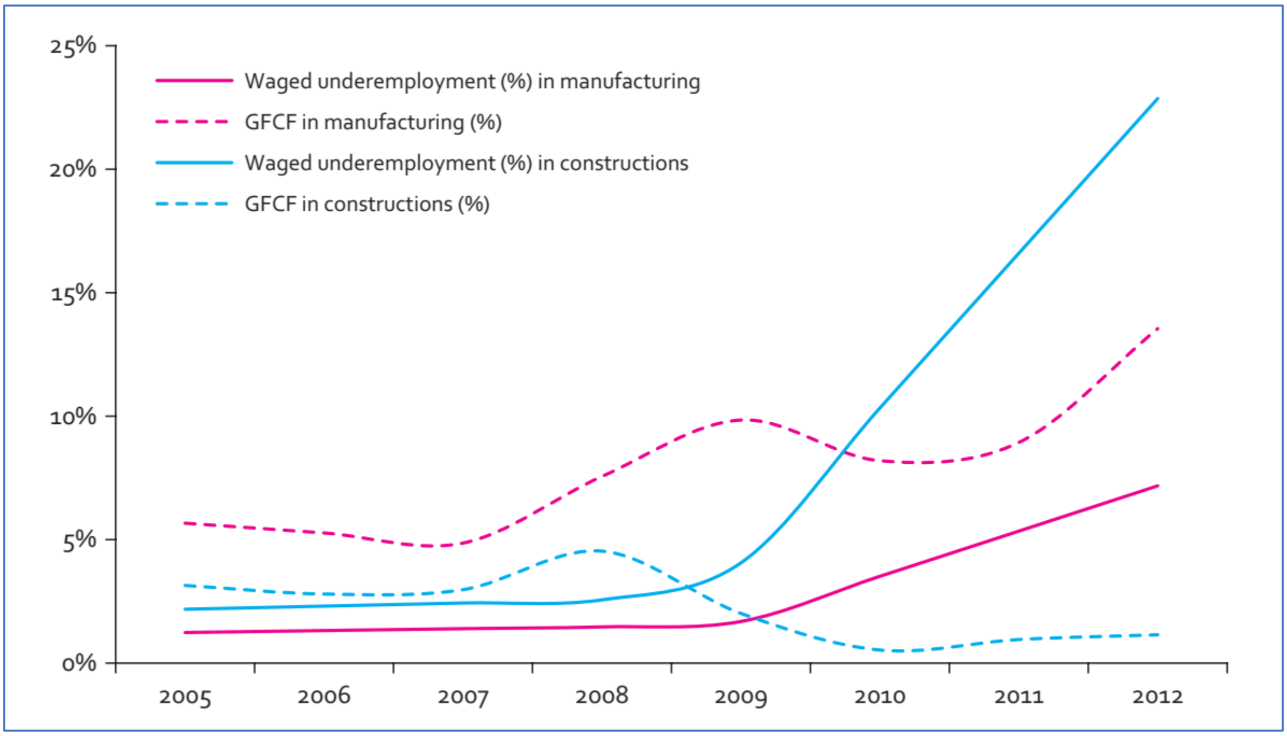


Figure 4.3: Gross fixed capital formation and part-time waged employment shares in construction in Attica, 2005–2012
Source: HELSTAT, 2015; 2017

The capital switching documented at the national level also has an impact at the regional level in Attica. As the central region for construction activity, it is characterized by noteworthy labour-market shifts, as shown above. Figure 4.3 shows that the volume of GFCF in manufacturing gradually expanded over the research period, in stark contrast to the share of GFCF in construction. While the period from 2005 to 2008 was characterized by stability, underemployment subsequently expanded in both sectors. The increase in the manufacturing share of total investments does not seem to contain underemployment, indicating that this sector had experienced stress before 2008. However, underemployment sprawl seems limited when compared to the construction sector, in an era in which industrial production has become flexible internationally. From 2005 to 2008 investment in construction grew, while underemployment levels remained low. Capital switching and high long-term investment volumes in the built remained low. Capital switching and high long-term investment volumes in the built environment led to improved performance in this sector. However, investment in the sector subsequently declined sharply, while underemployment rose much faster than in manufacturing (see Figure 4.3). The figures in the analysis of GFCF by investment product at the national level clearly show the same trend as figures at the regional level by sector. The decline in building share after 2007 matches that of plummeting investment in construction businesses and the subsequent explosion in underemployment. Interestingly, this sector – due to the nature of the labour needed – traditionally could not utilize part-time employment extensively.

Intensified labour turnover rhythms reveal that construction suffered from a profound crisis, which led to a low-road type of flexibilization (i.e. flexibilization that draws heavily upon very precarious or atypical work and is based on poor wages) that in other sectors would signify opportunities for further capital accumulation (as happens in manufacturing). Data on absolute GFCF volumes show investments in 'real production' (transport equipment, other products, metal products and machinery) recuperating and even increasing after 2012 (HELSTAT, 2018). These changes are passed through to the manufacturing sector, which may appear more vulnerable than the construction sector pre-crisis and may seem to suffer from structural deficits, as mentioned earlier. Nonetheless, the manufacturing sector reported better performance in terms of underemployment post-crisis. Construction activity carried the Greek economy forward from the early 1990s, receiving idle capital from the manufacturing sector and shaping the infrastructure that would normalize and enhance the latter's productivity. However, as the construction industry was more vulnerable to business cycles and crisis pressures (Beyers, 2013), investments declined and labour markets collapsed after 2008, leading to huge losses in employment and a concomitant rise in underemployment.

Discussion: Capital switching vis-à-vis shifts in labour turnover time

Research findings reveal that capital switching took place over a significant part of the past decade (from 2002 to 2007). It was disrupted for a short while right after the Olympic Games of 2004, as public investment declined, affecting construction activity and firms (IOBE, 2015b). This switching extended back to previous years, as early GFCF data suggest a rapid growth in construction was already documented from the early 1990s (IOBE, 2015a), which led to high investment growth in the built environment before 1995. This trend was mainly attributed to housing investments and the Olympic Games, while fixed asset formation related to infrastructure and newly built industrial plants were also important, though relatively limited (IOBE, 2015b). Nevertheless, the intensity of investment activity in the secondary circuit clearly reflects the particular characteristics of the Greek growth model over the past four decades or so: a diachronic lagging of the primary circuit efficiency related to overaccumulation trends (especially since the early 1990s – see Mavroudeas, 2014); the necessity of infrastructure modernization under EU convergence conditions; and investment opportunities for the Olympic Games related to the euro-currency financialization era. Such conditions shaped the country's employment prospects nationwide: construction became one of the fastest expanding sectors, while manufacturing labour figures stagnated. Meanwhile, sectors within the strongly tertiarized economy, such as the knowledge economy, remained peculiarly static.

The (pre-2008) expansion period was characterized by simultaneous increases in GFCF in terms of construction and operating surplus levels (Eurostat, 2018). This evidence, which includes important investments, particularly in housing, implies that overaccumulation trends in Greece were, inter alia, handled through urbanization (Chorianopoulos et al., 2014). The housing bubble (Antzoulatos, 2011; Alexandri and Janoschka, 2018), exacerbated by a strong inclination towards homeownership (see Harvey, 2011), had burst by 2007. The global recession in the following year disrupted and ended capital switching permanently. This, in turn, had a huge impact on employment volumes and labour turnover rhythms post-2008, rendering large segments of the workforce disposable, particularly in the construction industry. This sector has had the greatest rise in underemployment and the sharpest decrease in wages during the recession years (INE, 2016). The explosion of activity pre-2008 in Greece's construction-oriented economy and the spatial fixes this promised were followed by ongoing retreat and depreciation in this sector and anaemic developments in the manufacturing sector. Attica, situated in the eye of this tornado, was incapable of keeping the above under control through the destruction of existent spatial fixes even before the first recession-related pressures. The capital region experienced a disproportionally large number of job losses, and labour underutilization expanded more rapidly here than in the rest of the country, especially in the manufacturing and construction sectors (Armstrong et al., 2014; Petrakos and Psycharis, 2016, Palaskas et al., 2015).

The expanding segment of underutilized labour in the construction sector can hardly be incorporated into 'rational' construction labour practices. It thus represents a deep structural crisis, alongside opportunities for reduced labour costs. Such a deep crisis in a sector that is responsible for producing new urban landscapes signifies a fundamental change in the trajectories of Greek urbanization. At the time of writing, in early 2018 – ten years after the initial shocks – almost all large construction projects have been stalled, about half of the country's construction companies have stopped operations, the sector's contribution to GDP has sunk, land value is still falling continuously (see Hadjimichalis, 2014), real estate has been devalued, suburban expansion has halted, and obvious aspects of the new-built gentrification type have slowed down (Rousanoglou, 2017). More than 30% of the total impact of the recession can be attributed to the construction sector specifically (IOBE, 2018). These findings, which outline a wider and complex crisis in the metropolitan region(s), call for further explanation and contextualization, at least in terms of the role that waged (under)employment plays in post-2008 urbanization across the southern EU (Green and Livanos, 2015; Martin et al., 2016). The interpretations and contextualization of these results according to different sectoral trajectories below leave room for important generalizations, which could be applicable to other contexts, especially the southern EU (Caraveli and Tsionas, 2012; Psycharis et al., 2014; Palaskas et al., 2015).

Traditionally, the construction sector has employed temporary workers and made use of a variety of informal practices, which have, however, been deeply embedded within the Greek socio-productive framework. Such practices centered on seasonal, often informal employment, which led to steadily increasing income and prosperity for breadwinners and their families. These practices date back to the severe depression of the interwar period and the 1920s, during which construction was prioritized in Greece above other activities. The Greek pattern of spontaneous, semi-illegal housing and infrastructure has been coupled with diffuse informal work practices, which can be regarded as two sides of the same coin, resulting in the creation of typical Mediterranean urbanization patterns that are not based on the northern European historical trajectories of planned expansion and regulated waged work. Lack of sufficient planning, endemic in the Greek case, and competing interests across the capital region, have thus produced highly fragmented sites of urban work, infrastructure, and housing (Leontidou, 1990). Part-time low-pay employment, currently utilized to accommodate declining activity and profits, was a form of flexibility not inherent in such activity. Yet the post-2008 intensification of labour turnover time, the devaluation of land and limited credit capacity (IOBE, 2018) are signs of a sector in crisis and have further implications for dismantled fixities – for instance, inadequate maintenance of ageing private and public building stock and exterior spaces, as well as revived housing projects to make hollowed-out 'ghost' neighborhoods in the urban core or on the periphery habitable, are frequently halted after a few months owing to financial difficulties (Rousanoglou, 2017).

Manufacturing was strongly affected by the above deficiencies in the construction sector. Such deficiencies are, in turn, deeply rooted in the crisis of Greek productive capital and have further implications for the capital metropolitan region. Some of the most important discrepancies are based on the specialization of the Greek industrial model, which has traditionally been oriented towards outdated products of low added value. Manufacturing activities, which are part and parcel of mixed land-use patterns and activities described above, have been deeply integrated into the urban fabric of Attica since the first decades of the twentieth century. What started as petit-bourgeois micro artisan activity turned into profitable middle-sized manufacturing during the 1960s, drawing upon a vast array of informal work and production practices. Certain industrial production sectors (such as food, clothing and chemicals; see Leontidou, 1990) were among the most productive and profitable until the mid-1980s. Several contradictions surfaced as conflict between urbanization and industrial production locations escalated. Expanding establishments were producing significant negative externalities, and at the same time they were suffering from related externalities, restricting profitable investment in real estate and associated infrastructures while hindering suburbanization plans. This led to a post-1970s state-driven relocation of industrial activity to specific designated areas (known as industrial areas or parks) within Attica, but also to other regions, such as the neighboring region of Central Greece (Petrakos and Psycharis, 2016). This paved the way for capital switching. Overaccumulation trends since the 1990s (Mavroudeas, 2014), coupled with the impact of EU policies and the particularities of the domestic industrial model, have subsequently led to negative outcomes for Attica.

This national trend of inter-regional deindustrialization soon combined with its international equivalent – the 'globalization' effect. This trend, which has gradually intensified since the late 1980s, has driven hundreds of industrial establishments out of Greece in search of reduced labour costs. This has led to the capital region experiencing new waves of profound job losses in both core jobs (full-time and well-protected) and peripheral jobs (mostly seasonal but full-time). Manufacturing activities declined more strongly in urban than in other areas (e.g. peri-urban, rural and industrial parks) owing to the synchronous effects of a geographically rescaled market, and state and global forces. The small size of average businesses in Greece (in terms of EU standards), scarcity of technological innovation, continuous productivity losses owing to EU-scale uneven power geometries, and lack of liquidity and credit necessary for facilitating capital-intensive production eventually pushed domestic industry out of profitable markets (Hadjimichalis, 2011; Shaikh, 2011; Polyzos et al., 2013; Kornelakis and Voskeritsian, 2014; Psycharis et al., 2014; Kallioras et al., 2016). The already severe pressure of the 1990s intensified further when Greece entered the Eurozone.

Decline in this sector was not deemed alarming, as cutbacks dismantled existing industrial spatial fixes, facilitating urbanization in the pre-crisis period. As stated earlier, the negative impacts of overaccumulation in Attica were dealt with through capital switching to postpone the approaching recession, but also as a rational way to rechannel investment choices. Since the 1990s, fixed capital formation migrated to the secondary circuit seemingly permanently, as preeminence of construction investment only came to a halt in 2008. Available data merely hint at a cyclical transposition hypothesis, as they present a periodicity that is similar to the Kuznets cycles of 15 to 25 years (see Harvey, 1978): post-crisis, parts of migrated capital returned to productive activities, affirming this theory (Harvey, 2011), stabilizing fixed capital formation levels and making use of the available labour markets. Manufacturing, amid a profound recession, performed significantly better than construction, leading to recent industrial reports dismissing the construction-oriented growth model to call for its recalibration towards extrovert branches of manufacturing, such as energy production and transportation equipment (IOBE, 2018).

Beyond the issues we have highlighted above, certain institutional factors that facilitated underemployment need to be highlighted. Crucial post-2008 shifts led to a reform of Attica's labour markets to comply with the EU's and the government's labour cost reduction narrative (Davies, 2011). Wage levels dropped while flexible arrangements sprawled, driven by employment legislation that employers took as an opportunity to increase their competitiveness and face demand-fluctuation problems more effectively, even in sectors that were not suffering major losses, such as the hotel industry. Economic flexibility through cheaper contracts became the common path (Bakas and Papapetrou, 2014), and recent data (HELSTAT, 2017) indicate that part-time employment is increasing further, approaching the 10% mark, deepening wage gaps and leading to increased social polarization (Polyzos and Tsiotas, 2012; Gialis and Leontidou, 2014).

Conclusions

This article offers evidence that in the years preceding the 2008 crisis and particularly between 2002 and 2008, a strong, though short-term, switch of fixed asset investment activity (that had already intensified since the early 1990s) from productive activities to the built environment took place. A one-year post-Olympics stagnation led to two distinct stages (2002–2004, and 2005–2007) of disrupted capital switching. Capital flows to the secondary circuit were permanently disrupted from 2007 onwards, ending a construction-sector-led cycle that had lasted more than 12 years, with the aim of rationalizing and enhancing the productivity of the outdated and uncompetitive domestic industrial sector.

Employment swings were found to be closely associated with fixed capital formations. The pre-crisis model, with its focus on built-environment-related fixed assets, identified the construction sector as the most dynamic sector. This was reflected by employment numbers and low levels of underemployment in this sector.

However, as parts of the capital that had been switched to the secondary circuit then returned to the primary circuit amid recessive pressures and settled into 'productive' fixed assets post-crisis, the sector declined, which rapidly led to high volumes of surplus labour. Construction activity was supporting growth that was no longer sustainable. This led to low-quality flexibilization, which in turn resulted in very high labour turnover rhythms and extensive labour underutilization. Consequently, the already segmented spatial fixes in heavily urbanized regions caused devaluation and dismantling. The extreme reduction in labour turnover time in the sector may have been a response to the collapsing credit system. In addition, the dependence on fixed capital investments to increase manufacturing productivity in post-2008 Attica has relied by definition on relatively high volumes of capital that needed to be 'slowed down' in the form of infrastructure, to enhance the productivity of the circuiting parts of capital (Harvey, 2017: 31). Yet, as money that has been 'slowed down' and 'hoarded in the built environment' cannot be released within a weak credit system such as that of contemporary Greece, the construction sector has found a temporal solution to this problem by further devaluing labour and speeding up turnover time through short-term part-time work. Based on the above, some important remarks of wider socio-spatial significance should be pointed out here.

First, despite the asynchronous character of the Greek crisis (compared to the emergence of the recession in the US and the Eurozone), the domestic model of booming construction activity that had been supported by capital switching, was severely affected by the economic turbulence. As the Greek economy is highly integrated into EU and global structures, it could not be protected by general devaluation trends, the latter being a mix of global and internal longstanding antinomies.

Secondly, the Greek crisis is mostly Attica's metropolitan-area crisis. This does not imply that other regions and the secondary metropolitan area of Thessaloniki have not been severely affected; rather, it underlines that changing patterns of regional unevenness and intra-regional restructuring are more evident in Attica than in any other spatial entity of the country.

Thirdly, the recession had some severely negative consequences on spatial fixities established in Attica during the pre-crisis period. Existing building projects from the pre-crisis era are dismantled and turned into devalued grey sites of stalled production and idle construction. Previous temporal solutions to problems of accumulation and profit securitization were until recently viable, but this is no longer the case. New spatial configurations that will be sufficient to revitalize Greek capitalism's largest urban fabric by injecting new fixed capital into the built environment have to be found. Renewed capital growth is evident in the manufacturing sector, but enhancing the production of new urban landscapes seems unattainable under current construction-sector conditions. Furthermore, the once strong construction sector has been turned into a large container for sporadic and precarious underemployment. Devalued metropolitan sites and impoverished workers reveal that one aspect of capitalism's crises is a combined recession of urbanities and the labourers living therein. Labour devaluation has generated a vicious circle of unemployment and underemployment, and without the security of past decades, a significant segment of the workforce has drifted towards long-term unemployment. As the unemployed and underemployed experience difficulties maintaining or optimizing their expertise, the negative externalities of labour devaluation are expected to remain persistent (as domestic unemployment shows).

In addition, a series of regulatory reforms imposed by common EU–IMF–Greek state memoranda have further exacerbated employment precariousness in Greece. Numerous provisions have led to lower pay for those in full-time jobs and to an easing of dismissal restrictions (Monastiriotis and Martelli, 2013)[20]. In addition to a high number of layoffs in the first years of recession, several thousand contracts were converted from full-time to part-time after a 'fictitiously mutual' employer–employee agreement (Ergani, 2016; INE, 2016). The array of reform measures, instead of tackling labour-market decay caused by limited job opportunities and discontinuities of labour supply and demand, widened existing disparities (Monastiriotis, 2011), shaping a 'dysfunctional' market economy in which dismantled spatial fixes, ageing infrastructures and economic performance eroded by crisis have dissolved social cohesion (Kornelakis and Voskeritsian, 2014).

Finally, new spatialized contradictions are emerging as 'creative destruction', praised by EU bureaucrats and Greek elites for its power to effect change and lead to renewed expansion, which is yet to come. Depletion of valuable resources, outmigration of high and semi-skilled labour alike (known as 'brain drain') and urban and regional depression and disinvestment have damaged a diachronic pattern of urban regional development, which is suffering from important deficiencies, having largely been based on micro private-house ownership, socio-spatial spontaneity and agency. Continuous urban renewal and the spatial fixities that harnessed it (namely, urban sprawl and a housing bubble) were in line with the interests of economic and political elites but also represented a form of social compromise to represent the less privileged – to a significant extent.

Latest trends signify a critical turning point for the 'Mediterranean city' and call for new theorizations of contemporary urbanization in regions of the southern EU that critically reformulate existing accounts (Leontidou, 1990). The Mediterranean metropolitan regions of the southern EU are possibly becoming sites of greater exclusion, higher fragmentation and unstable underemployment, embodying a blend of historical particularities and 'negative northern idiosyncrasies', lacking, however, northern EU merits regarding planning, urban and peri-urban development prospects, amenities, work-related infrastructures and labour-focused welfare provisions across cities and regions.

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[20] For example, law 3846/2010 provides additional incentives for firms experiencing adverse financial and economic circumstances to implement 'alternate work' schemes by distributing the reduced capacity among their workers and reducing work hours and payment pro rata.

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Chapter 5

Studying the Spatialities of Short-Term Rentals' Sprawl in the Urban Fabric: The Case of Airbnb in Athens, Greece[21]

Introduction

The expansion of *short-term rental* (STR) markets in recent years is a reality that definitely affects living conditions, especially in urban areas. This fact can be attributed to a number of characteristics of STRs, like their ability to take advantage of local landmarks (more than hotels do) because of their capacity to expand in already built-up areas, without the need of specific permits or being subject to land use zoning (Gutiérrez et al., 2017). This is exceptionally important in the context of urban tourism, a rapidly growing part of the tourism industry, affecting mainly lower-end hotels and those not targeting affluent business travelers (Heo and Blengini, 2019) The increasing number of STR listings has generated controversies on several issues of regulation, housing markets and various other spatio-temporal effects (Slee, 2017). Thus, it calls for urgent research attention based on, among other things, the perspective of humanistic data mining.

Within the STR market, *Airbnb*[22], an online *peer-to-peer* (P2P) accommodation platform, holds a prominent share. Airbnb is a global phenomenon; since its emergence in 2007, it has managed to expand to 81 thousand cities across 191 countries, currently counting more than 6 million listings. While linkages between the spatial characteristics of the platform's listings and shifts in the housing market have been studied for a variety of cities, like New York (Sheppard and Udell, 2015), Boston (Merante and Horn, 2016), or even Barcelona (Segú, 2018), there has not been, to the best of our knowledge, a thorough study for a South EU metropolis, like Athens and its neighborhoods.

The main aim of the current research is to tentatively discuss the consolidation of Airbnb in the city of Athens and associate it with several socio-economic aspects in specific city areas. The expansion of STRs is viewed as an outcome of several processes, needs and antinomies; i.e through the lens of transnational capital flows into the housing market of a dynamic city. Departing from an analysis of STRs listings (number, density) within the context of the biggest Greek city, we proceed by relating their expansion with an increase in *long-term rental* (LTR) prices. Specifically, it is highlighted how STRs might put pressure on other forms of housing, causing rents and property values to rise, as residences become "cash cows" (Merante and Horn, 2016) and reinforce gentrification (Lee, 2016).

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[22] www.airbnb.com

Literature review

The Spatialities of Short-Term Rentals

At the global scale, the Airbnb "community" sprawls in a heterogeneous fashion (Ke, 2017), being mainly used in macro-peripheries where tourism is already a prominent industry, boasts dynamic development overall and the population is "technologically savvy" (Heo and Blengini, 2019). The majority of entries regard entire house renting, indicating that the commercial use of Airbnb is pervasive, rendering the platform a rental marketplace rather than a true sharing economy mediator. This reality is further characterized by the heavy involvement of business operators whose presence is obscured by the use of "front men". In 2017, it was found that almost 70% of all listings globally referred to entire apartments/houses (Ke, 2017), while in 2016 almost half of the lodgings researched in 5 global cities referred to traditional holiday businesses. Additionally, Airbnb functions often as a mechanism that allows middle and upper-class homeowners to consolidate their position in expensive housing markets, in addition to being a channel of extra income for the urbanities of lower classes, who experience an exacerbated vulnerability amid conditions of low affordable housing stock and high tourist demand (Crommelin et al., 2018).

One of the earliest arguments in favor of Airbnb was that it would disperse the supply of tourism-oriented accommodation, relieving areas receiving heavy visitor flows. Nevertheless, an analysis for Barcelona concluded that Airbnb functions as a force concentrating supply rather than decentralizing it. On top of that, the way listings unravel follows a pattern that derives from a specific sociocultural profile regarding both hosts and guests (Sans and Quaglieri, 2016).

Apart from Barcelona, STR listings in Europe show significant concentrations in Paris, London, and Rome. Athens also exhibits high concentrations relative to its population, even though it is not among the European cities with the largest number of Airbnb entries. In the US, most Airbnb activity is located in five specific cities: New York, Los Angeles, San Francisco, Miami and Boston (Lane and Woodworth, 2016). Specifically, New York holds a prominent position in the relevant literature, boasting an exceptionally consolidated activity of the STR market. At the same time, it shows concrete signs of ongoing dynamism and expansion (followed by San Francisco, Miami, Oakland and Oahu [Heo and Blengini, 2019]) but it also exhibits falling rates of profitability in relation to LTRs. Listings are again mainly located in downtown areas, even though lately they tend to expand to hitherto under-exploited, residential areas (Coles et al., 2017), resonating with the recent situation in Barcelona as well (Gutiérrez et al., 2017). In poorer areas, Airbnb seems to be reaffirming its original purpose as a niche sharing economy, with private rooms – which stand for a more casual use of the platform – holding a disproportionate presence (Coles et al., 2017).

The Impact on Long-Term Rentals

The second issue relevant to our research, is the effect of Airbnb – and the STR phenomenon in general – on housing availability and affordability, specifically on LTR levels. There are arguments postulating against such a linkage, as in many cases the P2P accommodation market is very small in comparison to that of LTRs; the reliance of landlords upon long-term tenants, and the falling rates of STRs (Coles et al., 2017) could be strong factors towards this direction. Another issue keeping short-term and LTRs' markets afar is the extensive use of housing units that would have remained out of circulation had they not been Airbnb entries; this is particularly the case with spare rooms, that could not be rented out to regular tenants (Barron et al., 2018). In some cases, this connection could even be reversed, with STRs causing rents' decrease, due to the overuse of commons by more people and the negative externalities the higher densities in uses and human flows the rise of P2P accommodation brings (Sheppard and Udell, 2015). However, there are clear indications linking the STR phenomenon with rents' inflation (Sans and Quaglieri, 2016); the mobilization of tourism-oriented companies, which in many cases spread their investments across multiple geographical localities and pour a large number of listings into the P2P accommodation market, the stagnation of rent levels even amid recessive pressures that would normally cause shrinkage, or more importantly, the multiple cases where cities experience stark rates of rising rents, such as in San Francisco – which, ironically, is the home city of the Airbnb company itself. Most conducted studies conclude that a link between rising rents and STRs expansion is intuitively relevant and "straightforward" (Sheppard and Udell, 2015).

More specifically, one of the first works that theorized in a systematic way upon the aforementioned connection, identified two mechanisms that distort the housing market and limit the supply of affordable housing (Lee, 2016). The first refers to the "simple conversion" of houses previously rented out long-term into Airbnb entries year-round. This mechanism generates a relatively insignificant rise in rents citywide, that mainly affects already gentrifying and affluent neighborhoods, as well as downtown areas where the rental market is tighter. However, the impact of the second mechanism is argued to be more severe, and it refers to cases where landlords decide to turn whole buildings into Airbnb listings (Sideris, 2018). In these instances of "hotelization", the supply of housing is significantly shrunk, spurring displacement and gentrification.

Today, it is widely believed that the link between STRs and rent-inflation is tangible and severely affects contemporary cities (Lee, 2016; Wachsmuth et al., 2018). Empirically, existing research has managed to correlate a specific level of rents inflation to the expansion of STR markets in New York (Sheppard and Udell, 2015), Boston (Merante and Horn, 2016) and Barcelona (Segú, 2018).

Data and methodology

Airbnb does not, so far, provide any data on the spread of its platform on the various cities it operates. Therefore, in order to examine its influence, external sources had to be used, like *Inside Airbnb*[23], a website providing both relevant data dumps and tools for downloading the desired information directly from Airbnb. More specifically, Inside Airbnb collects and publishes data dumps of the listings that appear on the P2P platform for various cities and on various dates (recently, it has been collecting data on an almost monthly basis). Each dump consists of a number of files that provide insight on different aspects of the phenomenon; describing in detail the collected listings, designating when each listing is available for rental on the platform and finally containing the reviews it has received so far.

LTR prices, on the other hand, are provided by RE/MAX (2018), a private agency conducting surveys on the real estate market in Greece. RE/MAX releases data on LTRs and mean prices per neighborhood, which are conducted on an annual basis and regard the whole domestic market. It should be noted that the spatial boundaries of the neighborhoods in RE/MAX reports are different from the ones Airbnb uses. Figure 5.1 shows Athens' neighborhoods as designated in the Airbnb platform. In order to achieve a controlled comparison between the data on short and long-term rentals, the neighborhoods from the private firm have been adapted to the Airbnb neighborhood format (as shown in Figure 5.4).

[23] www.insideairbnb.com

Figure 5.1: List of Athens' neighborhoods

Source: www.insideairbnb.com

In order to interpret the temporal as well as the spatial effect of STRs on LTRs within the City of Athens more thoroughly, two data dumps that have been obtained in the same month three years apart, were scrutinized (July 17th, 2015 and July 16th, 2018). The analysis mainly focused on the available listings. Initially, the number of listings per neighborhood have been examined, along with their relative change between 2015 and 2018 (Table 5.1). Then, the *density* (number of listings per km^2 – Figure 5.2) and its change throughout the study period have been calculated (Figure 5.3). Additionally, the *location quotient* (LQ), a metric originating from the area of economic development has been computed for all neighborhoods. LQ is related to density and is used to determine the concentration of a characteristic in a particular area with respect to a wider area. In this case, it was defined as the ratio of a neighborhood's density to the overall density of the City of Athens (Table 5.1). Apart from the expansion of STRs in terms of magnitude and density, the interrelation between short and long-term rentals has been explored. Specifically, the above results have been compared with the changes in rent pricesper neighborhood (Figure 5.4), while at the same time it has been accounted for what they might mean for the wider area of Athens. It should also be noted that the followed analysis scheme, based on the spatial comparison of absolute numbers and densities for Airbnb listings, albeit a preliminary one, in accordance with relevant research (Lee, 2016; Wachsmuth et al., 2018).

Id	Neighborhood	Number of listings			Location quotient	
		2015	2018	Change	2015	2018
1	1o Nekrotafeio	15	46	207%	0.98	0.71
2	Agios Eleftherios	10	32	220%	0.31	0.24
3	Agios Konstantinos-Plateia Vathis	64	484	656%	1.31	2.34
4	Agios Nikolaos	11	54	391%	0.64	0.74
5	Akadimia Platonos	13	71	446%	0.15	0.20
6	Akropoli	69	331	380%	0.96	1.09
7	Ambelokipi	96	377	293%	0.76	0.71
8	Ano Kypseli	31	78	152%	0.66	0.39
9	Ano Patisia	23	77	235%	0.33	0.26
10	Ellinoroson	6	52	767%	0.17	0.35
11	Emporiko Trigono-Plaka	308	1, 179	283%	3.51	3.17
12	Gazi	27	84	211%	1.80	1.32
13	Goudi	48	116	142%	0.35	0.20
14	Gouva	23	67	191%	0.78	0.54
15	Gyzi	27	96	256%	0.92	0.77
16	Ilisia	61	201	230%	1.78	1.38
17	Keramikos	62	217	250%	2.63	2.17
18	Kolokynthou	3	12	300%	0.13	0.12
19	Kolonaki	93	318	242%	2.16	1.74
20	Kolonos	10	84	740%	0.22	0.44
21	Koukaki-Makrygianni	117	723	518%	4.51	6.57
22	Kypseli	54	229	324%	1.45	1.45
23	Lykavittos	42	127	202%	1.04	0.75
24	Mouseio-Exarcheia-Neapoli	164	790	382%	2.41	2.74
25	Nea Kypseli	17	69	306%	0.70	0.67
26	Neos Kosmos	146	635	335%	1.29	1.32
27	Nirvana	16	96	500%	0.27	0.39
28	Pangrati	132	476	261%	2.46	2.10
29	Patisia	33	107	224%	0.61	0.47
30	Pedio Areos	20	87	335%	0.49	0.50
31	Pentagono	3	6	100%	0.17	0.08
32	Petralona	83	285	243%	1.25	1.01
33	Plateia Amerikis	30	114	280%	1.12	1.00
34	Plateia Attikis	66	424	542%	1.18	1.79
35	Polygono	11	30	173%	0.16	0.11
36	Prombona	4	13	225%	0.15	0.11
37	Rigillis	2	12	500%	0.53	0.75
38	Rizoupoli	5	19	280%	0.14	0.12
39	Rouf	-	-	-	-	-
40	Sepolia	5	21	320%	0.13	0.12
41	Stadio	46	223	385%	1.83	2.09
42	Stathmos Larisis	8	58	625%	0.42	0.72
43	Thiseio	60	266	343%	3.06	3.20
44	Votanikos	19	77	305%	0.15	0.14
45	Zappeio	33	105	218%	0.96	0.72
	Total	**2,116**	**8,968**	**324%**	**-**	**-**

Table 5.1: Number of listings, changes, and LQ per neighborhood

Source: www.insideairbnb.com, authors' processing

Analysis

The most obvious observation of our analysis is that Airbnb listings are increasing in skyrocketing rates, following the general trend of the "sharing economy". In the field of daily economic life in Athens, such an increase has come as an outlet for many landlords seeking to increase their earnings, avoid the risks of long-term tenancy (damages, unpaid bills etc.) or even allowing for segments of homeowners to continue living in rapidly appreciating housing markets (Rousanoglou, 2018). Our analysis reveals that these astonishing expansion tendencies in the STR market are geographically uneven. The overall increase in the number of listings between 2015 and 2018 is above 300% (Table 5.1), whereas in specific neighborhoods the increments are much sharper. The results are deemed as expected, with central areas presenting the highest numbers, densities of listings and concentration of activity (LQs); apart from Koukaki-Makrygianni, a neighborhood among the most noteworthy in terms of Airbnb activity at a global scale, listings are concentrated in the areas of the Emporiko Trigono-Plaka, Thiseio, Kerameikos and Mouseio-Exarcheia-Neapoli. Airbnb follows a multifactorial pattern of expansion; some areas appear exceptionally lucrative to visitors due to their vicinity to important landmarks, others for their central location, being at a walking distance from most entertainment and cultural spots, and some for their convenient position within public transport networks. Koukaki-Makrygianni and Thiseio reflect the first case, exhibiting the biggest densities and concentrations (LQs) during the research period, as most of the apartments listed offer a direct view on the Acropolis, with the neighborhood being in close distance to the Museums of Acropolis and of Modern Art. Emporiko Trigono-Plaka embodies the second case; a visitor choosing a place there is within the most vibrant part of the city. On the other hand, neighborhoods like Pangrati represent a convenient option, being close to the subway and boasting its own local mix of restaurants and bars, due to gentrifying processes in the recent years (Table 5.1 and Figures 5.2 and 5.3).

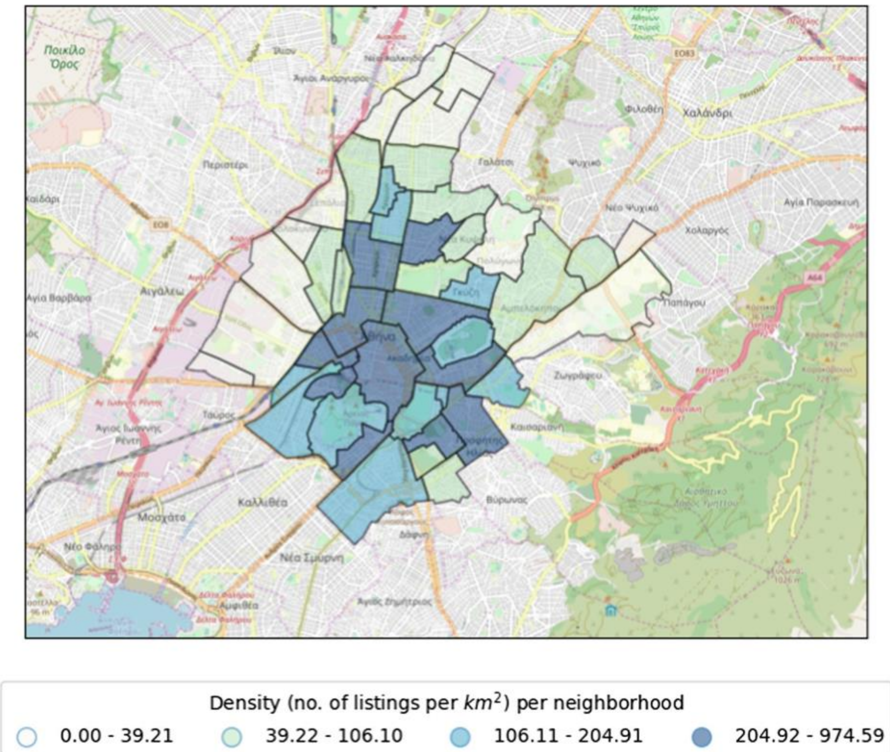

Figure 5.2: Density (number of listings per km^2) across Athens' neighborhoods as of July 16, 2018
Source: www.insideairbnb.com, authors' processing

Airbnb's expansion is also asynchronous; traditionally dynamic areas in the STRs market, such as Emporiko Trigono-Plaka mentioned above, show stagnation signs, with steady rates of density and concentration. The market appears to be expanding outwards, as (Segú, 2018) noted for Barcelona as well, with underexploited central and western zones presenting noteworthy changes. The areas around Plateia Vathis and Plateia Attikis show off their dynamism, experiencing sharp increases in STR volume, even if they do not constitute the safest parts of Athens (Figure 5.3).

In general, online P2P accommodation platforms have unlocked an array of cheaper choices in comparison to the price range in the regular hospitality industry for tourists and visitors alike, accommodating a more authentic experience that simulates a local way of living. Tourism boom in many geographical contexts can be directly attributed to the emergence of such platforms (Segú, ibid), because, apart from more affordable choices, they offer an unmatched convenience of booking a room or a house and directly check a wider spectrum of prices and choices. Such choices can be divided into two categories: the cheap and the vibrant, “real-feel” neighborhoods. Plateia Attikis is a peripheral, not expensive neighborhood, with a notably high concentration of Airbnb activity, and the 542% increase in platform entries within the last 3 years is surely eye-catching (Table 5.1). The area even though is one of the cheapest options, is close to public transit networks (Attikis Station). Exarcheia, on the other hand, is a neighborhood that attracts an alternative crowd of urban dwellers and the same has started being the case with tourists from abroad. Besides a diverse and vibrant downtown neighborhood, Exarcheia will be part of a forthcoming subway line, drawing the attention of international capital from China, Russia and Israel, which is invested in “ghost hotels” (Sideris, 2018). Such investments can be seen as a logical market response within a context of rampant expanse, with investors and homeowners exploring their options even in areas that, albeit central, had not shown signs of increased activity until recently. Such areas represent a promise of higher yields; leaving the operation of unsafe, informal hotels – hidden as mere listings – aside, the above designate a moving away of Airbnb from the “casual entrepreneurship” of its first years and a formalization of its activities, as the very recent acquisition of HotelTonight by Airbnb has shown.

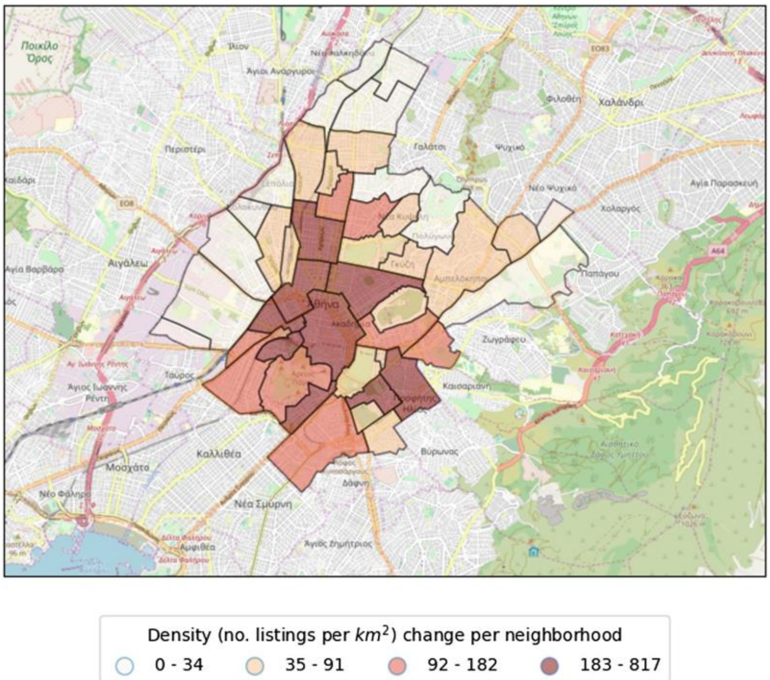

Figure 5.3: Density (number of listings per km^2) change across Athens’ neighborhoods between 2015 and 2018
Source: www.insideairbnb.com, authors’ processing

Lastly, the platform’s expansion has been found to be relevant with significant rent hikes, turning housing in Athens less affordable. This is particularly evident in the areas mentioned above for their high Airbnb listings’ densities and LQs: Koukaki-Makrygianni, Pangrati and Mouseio-Exarcheia-Neapoli. There – and especially in the first two – the increments are almost 50% within a 3-year span (Figure 5.4). More specifically, it has been observed in the data that the said hike in LTR prices is highly correlated to the increased Airbnb activity over the studied period, as measured by three distinct *correlation coefficients*; the *Pearson's r* (0.76), the *Spearman's ρ* (0.74) and the *Kendall's τ* (0.67).

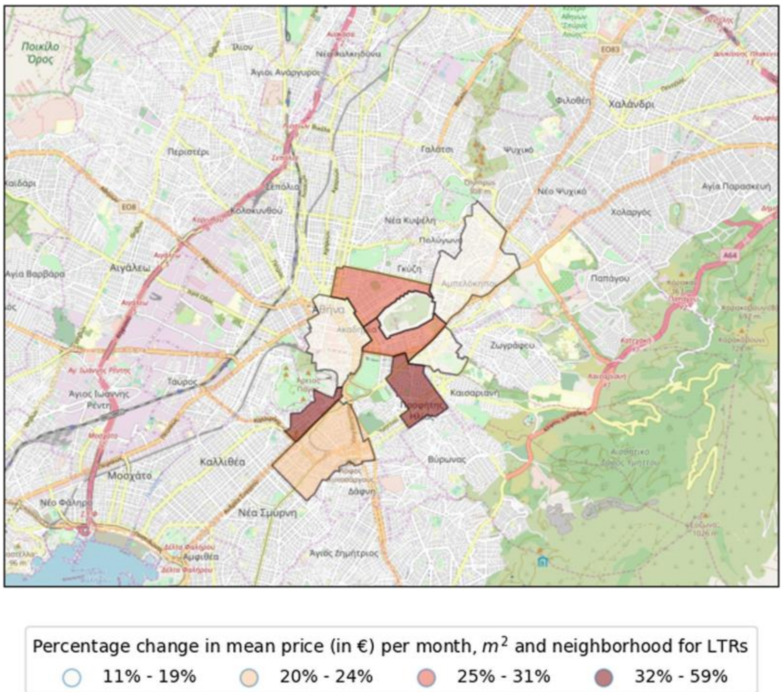

Figure 5.4: Percentage change in the mean price (in e) per month and m^2 for LTRs across Athens' neighborhoods between 2016 and 2018
Source: Re/MAX, authors' processing

Overall, the rental market in Athens shows worrying signs of inflation. This reality is attributed to two main reasons; the available housing stock for renting has significantly shrunk and the LTRs receive heavy pressure from the STRs, as the conversion of rented apartments to Airbnb listings constitute an attractive choice for landlords. Furthermore, Airbnb in particular, has been identified in numerous reports and surveys as a crucial factor of reversing the negative climate of the whole Greek real estate market after 2017. At that point, the rental market stopped shrinking and started exhibiting signs of expansion, which are expected to intensify (RE/MAX, 2018; Antonakakis and Liapikos, 2018). However, we should not attribute such rent increases solely to the negative externalities of the STRs market. We must identify, for the context of Athens, and the "positive cycle" as well (Merante and Horn, 2016); the necessary renovations done to the existing housing stock, in order to be more attractive for the Airbnb users and the emerging array of local businesses that are positively affected by the increased pedestrian traffic (grocery stores, cafes, mainly those offering breakfast, services directed to urban tourists, such as luggage storage places) lead to an overall upgrading of the economic base and physical environment of these areas and to higher rents.

Conclusions

In this work, a preliminary study of the effect of STRs and more specifically those originating from the Airbnb P2P online platform, has been attempted. The increase in the number of listings within the City of Athens and its neighborhoods has been evaluated both quantitatively and qualitatively over a period spanning three years, during which the capital of Greece showed signs of reverting recession and growth, with respect to the real estate market. Emphasis has been placed on the spatial characteristics of the STR phenomenon, in terms of neighborhood density and LQ, with the findings being on a par with similar research studying the dynamics of the city. Additionally, an initial evaluation of the linkages between the spatial characteristics of Airbnb listings and shifts in the housing market has been affirmed, with the observed LTR hikes exhibiting a highly positive correlation with Airbnb expansion, as measured by three distinct correlation coefficients.

The obtained results are very informative and call for a more in-depth analysis of STR development in other dimensions as well. One such direction worth exploring is the fluctuation in STR prices in a temporal (e.g. time of the year) as well as a spatial context. The aforementioned analysis could be further enhanced through the inclusion of more parameters (like house size, facilities, etc.) that would most likely lead to the discovery of very interestingunderlying characteristics.

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Chapter 6

On the recursive relationship between Gentrification and Labour Market Precarity: Evidence from two neighborhoods in Athens, Greece[24]

Introduction

The Greek economic crisis that emerged in 2008 has dramatically impacted the country's labour markets and built environments. Athens, having enjoyed an economic boom up until the 2004 Olympic Games, by 2009, the bleak reality of a deep recession had set in, one which saw disinvestment from the urban fabric and labour markets collapse. However, the city's more recent experience has started to change. Urban tourist numbers boomed after 2013, fueling the touristification of land uses and an explosion of peer-to-peer (P2P) accommodation options offered via online platforms (e.g., Airbnb, Booking), often operated by transnational capital that has lately been courted by the Greek government through its Golden Visa residence-by-investment program. In response, land values have risen sharply after languishing for several years (ReMax, 2019), encouraging gentrification (Balampanidis et al., 2019). Meanwhile, many workers previously idled by the recession have found employment in retail, recreation, and hospitality, catering to the needs of tourists, albeit such employment is typically quite precarious (Hadjimichalis, 2014; Mavroudeas, 2014).

Whilst gentrification is, then, a growing phenomenon in Athens, to date it has been little studied. The ad hoc, limited-scale planning practices characterizing Athenian urbanism (Alexandri, 2018) and idiosyncrasies of the city, like low residential mobility and a socio-economic stratification that is largely expressed vertically in apartment buildings rather than horizontally across neighborhoods (Leontidou, 1990), have led some to contend that the process ill-fits the Athenian context, at least in its Anglo-Saxon type (Maloutas, 2017). However, Alexandri (2018) has argued that state-led gentrification processes were initiated in the mid-1980s in some of Athens's historic neighborhoods and that there have been more recent private investor-led cases in various inner-city neighborhoods. Moreover, Balampanidis et al. (2019) have explored how the recent explosion of STRs has spawned gentrification in several locations. Still, studies directly linking Athens's gentrification with the growth of precarious work are scarce (e.g., Avdikos, 2015), as they are in the international literature as well (exceptions include Sassen, 1997).

Given the above, our paper draws upon recent theoretical arguments (authors, 2019) to present an empirically-grounded look at the interdependency between gentrification and growing labour precarity. By highlighting the particularities of the Athenian urban fabric, we keep our approach context-sensitive whilst also making connections to gentrification's planetary reach (Wyly, 2019). Based upon interviews, questionnaires, mapping, and extensive participant observation, we follow how gentrification tendencies and an STR-related touristification are supported by, and simultaneously fostering, the expansion of precarious work arrangements in two central Athens neighborhoods. We argue that touristification has galvanized

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gentrification, fueling rent increases and displacement, whilst such transitions have helped worsen employment conditions for many workers.

The paper is structured as follows. We begin with a brief outline of how gentrification and the growth of labour precarity can be connected, followed by an overview of the Athenian urban and labour context. We then lay out our methodology before proceeding with our two case studies. We conclude with a discussion of Greece's particular form of gentrification and its relation to the deregulation of Athens's labour markets. We also present some wider arguments that we believe scholars studying contemporary urban restructuring in the Mediterranean context and beyond should consider.

Theoretical Framework: Gentrification and precarity as a response to urban crises

The term gentrification was first used in the 1960s to describe a notable influx of middle- and upper-class people into working-class neighborhoods. During this period, it was typically a localized, marginal, and sporadic phenomenon seen only in a few global cities, a process that was often state-led and furthered by a network of small-scale landlords and banks (Smith, 2010). After the 1973 economic crisis, however, the phenomenon spread as many segments of capital sought to address crises of accumulation by switching from manufacturing to speculative investments in the built environment (Harvey, 2017). What had originally been a relatively small-scale phenomenon increasingly became a global urban strategy as large financial institutions and developers increasingly became involved (Smith, 2010). The new millennium saw growing levels of speculative investment as myriad commercial banks granted mortgage loans that provided "financial lubrication" within the broader economy; this progressively detached real estate capital from the rhythms of actual construction (Wyly, 2019) and ultimately contributed to the 2008 global economic meltdown when the bottom fell out of the overvalued US housing market. However, these economic shocks merely stalled gentrification in many places. More recently, in Athens and elsewhere transnational capital in the shape of online platforms like Booking and Airbnb has become increasingly important in stimulating a renewed gentrification (Aalbers, 2019), contributing to neighborhood "touristification." Whereas there has long been a close relationship between gentrification and tourism-related activities, this relationship has become tighter over the past few years as many owners, seeking to take advantage of rent gaps, have removed independent dwellings, apartments, or even whole buildings from the long-term housing rentals' circuit and converted them into short-term accommodation to be rented through online P2P platforms (Horn and Merante, 2017). As residences have become cash cows, rents and property values have risen and many landlords have evicted vulnerable long-term tenants in favor of better-paying short-term sojourners, exacerbating gentrification's displacement effects and fostering residential precarity (Lee, 2016).

Although much gentrification writing has largely focused upon what/who drives changes in the built environment, some researchers have made connections between housing and labour markets within gentrifying areas. Marcuse (1989) observed that gentrification often follows changes in the productive composition of downtown areas, whereas Smith (2010) described how rent levels shape the professional composition of neighborhoods. Additional, indirect, connections were made by Preteceille (2010) and Avdikos (2015), who noted that gentrifiers often find themselves working under remarkably precarious conditions, and by Zukin (1995) and Ley (2003), who suggested that gentrifiers' working habits have been crucial factors in their choice of residence. However, only a handful have made direct links between gentrification and labour market precarity. Sassen (1997) noted that small-scale gentrification has often relied upon informal labour whilst Jørgensen (2017) stressed that gentrification spurs precarity, both inside and beyond the workplace. Lastly, we (authors, 2019) have postulated that both gentrification and employment deregulation in the post-industrial city constitute mutually reinforcing responses to crises of overaccumulation; gentrification provides a means whereby the built environment can soak up surplus capital whilst precarity allows such capital to reduce labour costs. Hence, gentrification can spawn environments promoting precarious work arrangements ("gentrification-fostered precarity") whilst the construction and service work needed therein increasingly comes to rely upon precarious labour arrangements ("gentrification-supporting precarity").

The Athenian context

Greek cities share many key urbanization and urban form traits with their Spanish and Portuguese counterparts. Together these countries' cities constitute a distinctive form of urbanization, exhibiting what we might call a Mediterranean-EU archetype. Below we want briefly to draw attention to two characteristics which differentiate such cities from the dominant northern European examples of urbanization and socio-economic restructuring, with our focus being on Athens.

First, Mediterranean cities often exhibit "semi-peripheral" urban trajectories, manifested in a process of "urbanization without industrialization" (Leontidou, 1990: 29). Unlike in many northern European cities, whose urban form was shaped by the 19th century migration of agricultural labourers to newly opened factories, in the case of Athens the inmigration experienced in the post-war period was not triggered by manufacturing, as the latter occurred belatedly and industry was primarily located on the urban outskirts. Subsequently, in light of the 1970s deindustrialization wave, manufacturing's decline in the city left the urban center largely unscathed (Chorianopoulos, 2010). Second, the limited presence of formal planning in guiding urban growth meant that Athens developed in a largely organic fashion, based upon small-scale, self-financed property development schemes with limited public expenditure for urban infrastructure. Much of the city's post-war urban housing, in fact, was built via the practice of "antiparochi," itself an informal and unregulated arrangement. Antiparochi, in which a landowner conveys a plot of land to a (usually) small-scale developer in exchange for a number of apartments in the new building, reduced building costs and addressed the housing requirements of the city's residents in the context of a virtually non-existent government housing policy (Chorianopoulos, 2010). More importantly, it resulted in high population densities in the urban core and in housing units (typically, blocks of apartments) with a multitude of property owners and residents largely sorted socio-economically by story – upper floors are typically owned/rented by middle- and upper-class households, lower floors by poorer ones, and entresols and basements by immigrants. However, despite its disjointed nature, planning authorities turned a blind eye towards antiparochi, as rapid urbanization was perceived to be a shortcut to economic expansion.

It is these features that have led some to cast doubts upon whether changes in Athens's urban fabric might properly be called "gentrification" or whether the concept is too tied to the experiences of more prototypically industrial cities to shed much light on such a diverse setting. The canvas of Athens, however, is not uniform and developments that mirror gentrification processes in other cities have been identified. The Plaka neighborhood under the Acropolis is such an example, albeit an exceptional one; formerly degraded, it was gentrified in the 1980s after hefty state investment and the imposition of a tight regulatory framework for land uses and building preservation. Equally, when urban planning objectives shifted in the 1990s as the government adopted a neoliberal stance in preparation for hosting the 2004 Olympic Games. Small-scale interventions of the private-sector continued but were supplemented by a competitiveness-oriented urbanism, centered upon large-scale projects throughout the city and upon targeted interventions in Athens's historic center to uplift the area's prospects in the tourism industry (Alexandri, 2018). In this context, three neighborhoods near the historical center (Metaxourgio, Gazi, and Psirri) attracted investment in hotels and organized recreation facilities, whilst renovations of local residencies multiplied. Following the path-dependent traits of Athenian urbanization, however, gentrification in these areas proceeded without serious attention to an overall plan and was largely shaped by the *ad hoc* actions and choices of local property owners who responded proactively to changing local prospects (Alexandri, 2018; Avdikos, 2015).

The speculative aura and "investment fever" of the Olympic Games, then, created a real estate bubble that would last past the Games, but one abruptly stopped by the sovereign debt crisis that shattered the national and local economies after 2009 (Alexandri and Janoschka, 2018). Real estate was particularly hard hit. In Athens, between 2009-2014 residential property prices fell by 40.8 per cent and real estate transactions dropped by 78 per cent (BoG, 2014: 92). The construction sector also collapsed as jobs disappeared – employment fell from 140,000 in 2005 to 35,000 in 2019 (Gourzis and Gialis, 2019). Furthermore, the jobs that remained became more insecure (two-thirds of construction workers are today precariously employed[25]). Manufacturing, commerce, and even parts of the knowledge economy suffered similar fates (Mavroudeas, 2014). As a result, many of the workers previously employed in relatively secure and well-paid jobs who were made idle during the years of deep recession now work in hospitality, retail, catering, and recreational activities. However, they do so under very adverse conditions, with low wages, limited benefits, and uncertain schedules (Gourzis and Gialis, 2019).

Research operationalization and methodology

As terms, both gentrification and labour precarity are contested; consequently, we outline a brief definition here so as to avoid conceptual overreach. Whereas every inner-city renewal process has often been viewed as an example of gentrification (Maloutas, 2017), we suggest that for the term to have analytical purchase it must entail four specific conditions. First, it entails land uses being brought to their "highest and best" function in terms of income generation. Second, it involves an influx of capital, either public or private, into the built environment so as to upgrade it. Third, it prompts an abrupt shift in the character and culture of the affected neighborhood, enticing more affluent residents and visitors to move in. Finally, it involves the displacement of the extant resident population, mainly through increased rent levels and land-use conversions (Smith, 2010; Aalbers, 2019; Wyly, 2019; Gourzis et al., 2019). These parameters are central to operationalizing our research, as we have relied upon them to devise the questions asked in questionnaires and interviews and the types of land-use changes we recorded.

For their part, the terms flexibilization and precarity are often used interchangeably. However, the former refers to the expansion of malleability in working hours, contract duration, place of work (e.g., being able to work from home), and employment relationships (e.g., voluntarily working part-time) (Katz and Krueger, 2016). The latter, on the other hand, refers to insecurity vis-à-vis working conditions (Strauss, 2017). Hence, whilst flexibility and precarity can be concurrent for an individual, they are not the same. In the Greek context, however, flexible labour is mainly associated with low wages (often falling below €500 monthly) and limited social security, with more than 60% of part-time and temporary work being involuntary (Mavroudeas, 2014). Thus, in our research, flexible labour usually implies precarity without these terms being reducible to one another.

[25] Numbers from Athens builders' union.

In terms of fieldwork, between June 2018 and October 2019 we mapped land-uses in the two neighborhoods, conducted structured questionnaires with three groups (residents; employees; business owners[26]), and performed 17 one-hour-long semi-structured interviews with key informants, including union leaders, STR owners, retail workers, and residents. Surveys and interviews were not designed to generate statistically representative samples but, instead, to elucidate particular insights and provide revealing information. We also engaged in intensive participatory observation over two periods of almost 6 months each, with researchers staying in the area for most of the day to document neighborhood living and working conditions.

The research areas are two central Athenian neighborhoods: Koukaki and Kerameikos. They were chosen because they have exhibited tremendous STR growth in recent years (Balampanidis et al., 2019); plus, combined, they cover a substantial part of central Athens. Koukaki is situated under the shadow of the Acropolis and within walking distance of the city center, being a socially-mixed residential neighborhood for most of the city's modern history. However, as urban tourism expanded after 2013 citywide, the area experienced an explosion of STRs, mainly due to its key location. Initially, vulnerable residents such as students and immigrants were displaced, with most remaining renters following eventually. Koukaki, then, constitutes a prime example of touristification in Athens, as its social and economic composition was profoundly transformed during the past five years (Stergiou and Farmaki, 2019). On the other hand, Kerameikos, albeit right next to Athens's commercial center, was a dilapidated working-class neighborhood for most of the post-war era. However, most older residents have now been displaced through successive rounds of gentrification and building demolition, which commenced in the mid-1990s following an influx of artists and upper-class urban dwellers. As a result, Kerameikos constitutes one of the most distinct and longstanding cases of gentrification in Greece, boasting a mixed building stock comprising renovated neoclassical buildings and lofts next to dilapidated structures (Avdikos, 2015; Alexandri, 2018).

In what follows, for each neighborhood we first present our findings concerning gentrification and then highlight issues of labour precarity, exploring the distinct ways in which these two processes are interlinked. The questionnaires' findings are summarized in Figures 6.2 (reflecting all respondents' views on each neighborhood) and 6.3 (reflecting workers' views). Figures 6.1 and 6.4 visualize information obtained through fieldwork, and also present Airbnb listing concentrations as obtained from InsideAirbnb.com; active listings therein are those with their last review being February 2019 onwards.

[26]Common questions for all focus groups addressed age and area of residence, settling motives, views on threats/opportunities, perceived changes (in architecture, open spaces, neighborhood character, rents, displacement) and impact of P2P platforms. Additional questions addressed tenure status, renovations, rent levels (to residents), employment-contract details and work satisfaction (to employees), staff size and types, clientele, satisfaction, and relocation thoughts (to business owners).

Analysis: Gentrification and labour market precarity in two Athens neighborhoods

Koukaki

Figure 6.1: The study area of Koukaki

Source: fieldwork, www.insideairbnb.com

Our research indicates that the area's transformation began around 2014 with the appearance of specialty food and drink businesses in former manufacturing and other spaces. Some bars functioned as urban pioneers and "pushed [Koukaki] to become what it is today" (STR owner, M, 9/26/19), "generating a 'hipster' boom" (former bar worker, F, 10/10/19; see Figure 6.1). The municipality then responded by beautifying a few adjacent streets and squares and moving away nearby prostitution spots. Despite such municipal intervention, the area's transformation has mostly relied upon private initiatives and many respondents decried the lack of attention given the area by what they view as the "absent municipality." In particular, they complained that very few projects for public spaces have been implemented during the past five years, and more than 80% of respondents did not see any substantial changes to streetscapes (Table 6.1, Q1). Even though tourist traffic began increasing after 2009 and the establishment of the New Acropolis Museum, it could not be accommodated by existing hotels, as indicated by several respondents. Sharp increments in tourists in the neighborhood really only occurred after 2014 and the expansion of the STR market, with an article on Airbnb.com[27] noting an 800% increase between 2014-15. The article made the news and brought more visitors, aided by a 2015 change in legislation to no longer require STR operators to have a license from the Greek National Tourism Organization and that "brought havoc" (STR Owner, M, 9/26/19) to the area. Whereas in July 2015 there were only 115 Airbnb listings by May 2019 there were some 850, almost 0.54 per housing unit in the neighborhood. This brought about sharp inflation in land values (ReMax, 2019) which, in turn, fueled an almost 50% increase in the area's rents between 2016 and 2018. At the same time, many would-be investors

[27] www.airbnb.gr/press/news/be-the-first-to-uncover-the-next-local-gem-visit-the-top-16-trending-neighborhoods-on-airbnb-in-2016

were shut out of the market – as one entrepreneur put it (9/26/19), “Koukaki is now so full you cannot find anything to invest in. The closer it is to the Acropolis and the museum, then it is surely taken.” Rent increases, seen by almost all residential respondents (Table 6.1, Q3), generated profound displacement, as noted by more than 70% of those questioned (Table 6.1, Q4). As one former resident (9/21/19) stated: “Gradually many people renting a room left, and now [the area] has almost only homeowners. Many students couldn’t shoulder the cost. Immigrants cannot afford Koukaki anymore.” An influx of new residents, many wealthy architects and engineers, as well as artists setting up workshops near the National Museum of Contemporary Art established in 2016 (STR owner, M, 9/26/19), “replaced those leaving, choosing it for its centrality and accessibility” (current resident, F, 9/14/2019).

Table 6.1: Neighborhood changes as perceived by all respondents

	Koukaki	Kerameikos
Sample size	64	62
Q1: Public space improvement?		
Yes	12	18
No	52	43
N/A	0	1
Q2: Building stock upgrading?		
Yes	28	29
No	36	33
N/A	0	0
Q3: Rent increments?		
Yes	61	48
No	2	8
N/A	1	6
Q4: Residents’ displacement significant?		
Yes	46	25
No	14	22
N/A	4	15
Q5: Shift in neighborhood character due to touristification?		
Yes	43	36
No	18	22
N/A	3	4
Q6: Perceived STR impact*		
Opportunity	32	32
Threat	43	32
No impact	5	9
N/A	2	8

**Total responses may differ from number of respondents as multiple answers were allowed.*

Source: Fieldwork

The building renovations and land-use conversions driving change in the neighborhood were carried out not only to create commercial uses but also by “really affluent people acquiring property and renovating these houses just for them” (current resident, F, 9/14/2019). Primarily, this involved converting land uses from low-intensity residential and/or retail activities (especially shops closed due to the recession) to more profitable uses (Realtor, M, 9/20/18), including a growing number of boutique hotels, small gourmet grocery stores, specialty bakeries, sophisticated cafés and bars, and STRs. These changes have altered the neighborhood’s character, as noted by the 68% of respondents (Table 6.1, Q5). Now its pedestrian streets host “ethnic cuisine restaurants and countless cafés" (former resident, M, 21/9/2019) and ooze a "fusion character. Small shops with small runs of printed white or black tees, small shops with handmade decorative stuff and jewelry, or really small places with specialty coffee have opened up" (current resident, F, 14/9/2019). Even the area's northern part near Plaka, which had been tourism-oriented since the 1970s, albeit "cheesy and posh," has "become more hipster and alternative" (current resident, F, 14/9/2019). During our fieldwork, residents told us that heavy foot traffic coming deeper into the neighborhood has created a more vibrant environment and several loci of recreation.

Table 6.2: Workers' questionnaires, main findings

	Koukaki	Kerameikos
Sample size	20	21
Q1: Period of work		
less than 1 year	7	5
1-3 years	6	8
3-5 years	3	5
more than 5 years	4	3
Q2: Employment conditions*		
Typical employment (fulltime & permanent)	7	10
Contract breaching	12	3
Q3: Reason for looking for another job*		
More hours/ chance to be fulltime	8	3
Prefer other type of business	9	2
Prefer something closer to subject of academic studies	3	1
Q4: Satisfaction level		
Satisfied	4	11
Indifferent	11	9
Dissatisfied	5	1
Q5: Perceived STR impact*		
Opportunity	7	10
Threat	11	9
No impact	3	6
N/A	1	3

**Total responses may differ from number of respondents as multiple answers were allowed.*

Source: Fieldwork

Gentrification has been concomitant with growing labour precarity. One manifestation of this has been the revolving door of businesses opening and closing. As one current resident (9/14/19) put it: "more than ten shops, cafés, bars, and workshops opened very suddenly around the corner [during the past two years]." At the same time, businesses not turning "towards tourism face considerable difficulties" (former bar worker, F, 10/10/19), as skyrocketing commercial rents have forced much of these businesses' clientele to leave the area. More than 80% of business owners confirmed extensive business displacement, which is directly related to worsening working conditions – "the closer a business gets to closure, the more deregulated it is for its staff" (union head, M, 8/1/19). The area's small businesses show particularly high levels of precarity, with more than half of workers in retail and recreation found to suffer contract breaching regularly (Table 6.2, Q2), mainly in the form of unpaid overtime. This is exacerbated by the fact that many workers feel "trapped due to the personal relationship they have with the owner [and have experienced wage cuts] of 50%. Most contracts do not…reflect actual working conditions" (union head, F, 7/19/19).

Workers are also facing an intensification of labour. In particular, when a business's clientele increases owners typically expand already-hired employees' work responsibilities rather than enlarge staff size (union head, M, 7/22/19). For instance, our fieldwork revealed that in up-market cafés workers face less contract breaching but expanding flows of tourists have increased demands upon them: "It changed what was expected from us. When I started there [in 2014] we could just leave an order on the table, but soon we had to do it in a specific way, to be perfect" (former bar worker, F, 10/10/19). These expectations are apparently related to the clientele's social and aesthetic status and are influenced by online reviewing, which places greater scrutiny upon businesses and staff (former bar worker, F, 10/10/19). The result is that whereas the expansion of STRs has translated into more opportunities for work as more businesses emerge, half of local workers perceive this expansion as a threat to working conditions (Table 6.2, Q5). Lastly, increased visitor flows have led many supermarkets with a 24/7 "shop-and-go" operation to open – 4 out of 8 supermarkets in the area opened in the past 5 years operate thusly, with 3 of the 4 being alternative types. By definition, these do not operate according to standard "business hours." In addition, supermarkets resort to multiple precarious arrangements: subcontracting of cleaning and warehousing jobs, intense evaluation of workers, rotating schedules where "a worker does not know if he/she works the next day," and extensive conversion of full-time work to part-time status, wherein part-time workers are paid as little as €300 per month, an amount below the official poverty line (union head, F, 7/19/19). Labour conditions in shop-and-go stores are further intensified as traffic is typically heavier and days off fewer, whilst wages remain the same as in conventional supermarkets (supermarket worker, M, 10/11/19).

Kerameikos

Although processes of gentrification were evident prior to 2000, several interviewees indicated that it really took off after 2007, following the area's connection to the metro system (particularly, the opening of Kerameikos station) and the implementation of a "multifaceted intervention" plan by one redevelopment firm (current resident, M, 10/3/19). During this period the practice of renovating old neoclassical and Bauhaus buildings went hand-in-hand with extensive demolition of dilapidated housing stock, erection of a few luxury apartment complexes (three inside or in close vicinity to the study area), and the conversion of formerly industrial spaces into lofts. These developments have limited locals' abilities to cash in on the area's rising land values – as one current resident told us (10/6/19), there have been "too many radical renovations, of buildings formerly industrial, etc. I talked about this with my father all the time. I said 'Look, I like this one. I wish I could get it.' The next week, you'd see scaffolding there." This perspective was held by 47% of residential respondents (Table 6.1, Q2). Although there was a short hiatus during the period 2012-13, redevelopment has subsequently continued largely uninterrupted, chiefly thanks to private initiative. Regarding public spaces, the municipal government was involved in creating a small number of cultural spaces, which were crucial tourist attractors (e.g., the Technopolis, a place for events and exhibitions, and the Municipal Gallery), whilst private capital focused upon the beautification of two sites, Dimosio Sima (an ancient cemetery) and Avdi Square. However, such changes were largely disparaged by local residents (Table 6.1, Q1): "Nothing changed in public spaces, only some streets were improved. But this could be a pre-elections trick" (current resident, M, 10/6/19).

The STR market's expansion started timidly in 2013 and was anchored in this upgraded building stock. Thanks to the area's vibrant nightlife, STRs were able to command high prices (STR owner, M, 9/26/19). STRs soon expanded into parts of the neighborhood adjacent to already-heavily touristified areas, such as Psirri (see Figure 6.2). "During the last two years every building around Koumoundourou Square was renovated [to enter the market]. In our building alone we have four [STRs], two of which operate intensely" (current resident, M, 10/6/19). Overall, Airbnb listings increased from 60 in 2015 to 249 in 2018 (almost 0.3 listings per housing unit in the area). Although our research revealed that touristification was less intense than in Koukaki, long-term leases in Kerameikos saw wild increases in price (more than 25% during 2018-19 [ReMax, 2019]), a phenomenon noted by over 75% of respondents (Table 6.1, Q3). As a result, "if you find something in online ads, it's probably €350 for a 30m^2, run-down flat, moldy and with destroyed window frames" (current resident, M, 10/6/19).

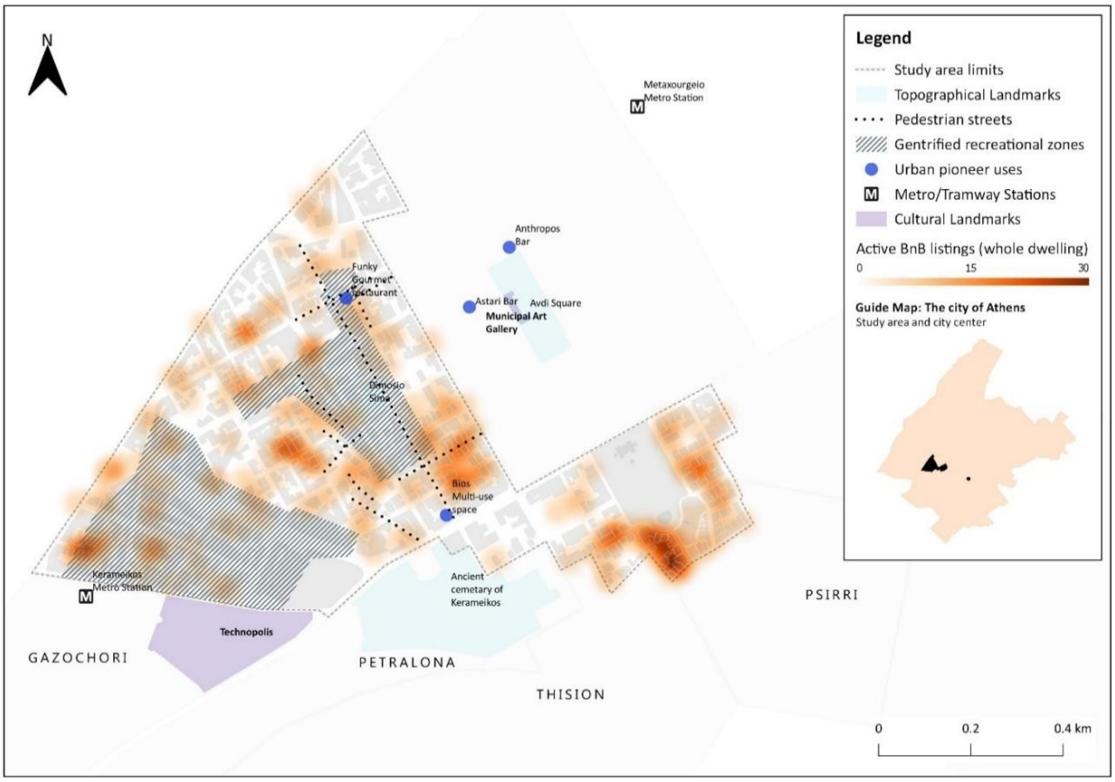

Figure 6.2: The study area of Kerameikos
Source: fieldwork, www.insideairbnb.com

Prior to the STR expansion, the area comprised a diverse population base – "Muslims from Thrace, Roma, working-class Greeks, old Athenians of the bourgeoisie, and young people, including artists, rushing to the area due to its alternative character" (current resident, M, 10/3/19). The neighborhood's demographics changed abruptly after 2007, as there was an inflow of people seeking an alternative lifestyle but "having more money" who were "able to buy a house five times the value of nearby dwellings" (former resident, M, 10/1/19). Additionally, when cultural and recreational activities multiplied after 2013, "young creative and knowledge industry freelancers, some kind of bohemian and hippies, and some pensioners – Germans or something" appeared (current resident, M, 10/6/19). Interestingly, during the past few years, many Chinese running and working at wholesale stores also settled in, making the neighborhood the "Chinatown of Athens" (former resident, M, 10/1/19).

Subsequent phases of population replacement have displaced much of the previous population, even marginal gentrifiers who had arrived in the early 2000s. As a former resident who settled in the neighborhood in 2008 noted, “Finding a house now is too difficult, and some people belonging to my social group have left involuntarily” (10/1/19). Given that middle- and upper-class dwellers had already begun replacing previous residents, the population displacement of more recent years has not been as aggressive as in Koukaki, something reflected in respondents’ mixed answers – 40% believed displacement had been significant but 25% were not sure (Table 6.1, Q4). The fact that the area had already been somewhat gentrified meant that its character was viewed as less affected by touristification than was Koukaki’s (only 58% saw it as affected, compared to 67% of Koukaki respondents [Table 6.1, Q5]): “the tourist will buy from and transact with shops which already cater to locals’ needs” (current resident, M, 10/3/19). Although Kerameikos conforms to all four conditions set out above as manifesting gentrification, changes in the neighborhood were described by the residents themselves as representing gentrification of “particular blocks, rather than of the whole area” (former resident, M, 10/1/19).

With regard to the gentrification-precarity connection, although the first bars of the post-redevelopment era opened as early as 2002-03, only after 2013 did Kerameikos really turn into a “recreational town” (former resident, M, 10/1/19), though one with a split personality. Today, one can find two main recreational zones: the western part of the neighborhood is a “mainstream recreational area” called Gazi, whilst the area’s pedestrian streets are “colorful and alternative” (former resident, M, 10/1/19). The latter boasts several “restaurants [that] opened in recent years, of the highest gastronomic quality, among the best in Greece,” as well as cafés that “focus on culture, the good side of culture” (former resident, M, 10/1/19). One of those, the Funky Gourmet, has also transformed the surrounding area. Older economic functions, including garages, metal and wood workshops, and small-scale manufacturing, have been pushed out, but zoning regulations and the specific building stock available have kept out other uses as well, such as non-boutique hotels (former resident, M, 10/1/19) and supermarkets, with space “too tight for the latter” (current resident, M, 10/6/19). With regard to retail, this is mostly small-scale operations and workers tended to report greater satisfaction with their jobs than those working in recreation. Nevertheless, these small grocery stores are mostly owned by immigrants, with employees predominantly being acquaintances of the owner who work mostly under informal terms. During fieldwork we observed that staff in fine restaurants are divided into a core (mostly chefs, assistants, and first waiters) and a group of disposable employees, who are mostly tasked with cleaning and washing duties. However, workers’ questionnaires indicated that even among the core not all employees are well-paid. There are even cases of “fine restaurants hiring workers as interns without pay, so as they can put it on their résumé afterwards” (union head, M, 8/1/19). Half of those working in cultural cafés and “neokafeneia” (new Greek-style coffee joints) that we interviewed indicated they lacked an employment contract, but many perceived this to not be a negative, as their income comes untaxed. Interestingly, workers in Kerameikos were more likely than those in Koukaki to mention tipping as a positive aspect, probably because of the richer clientele the area attracts. However, many of them were forced to take jobs as waitstaff to support their primary work as actors and musicians, especially as the former are typically not paid for rehearsals and the latter are almost always uninsured and often sign phony contracts declaring their performances to be not-for-profit, so as to avoid fines in case of questioning by the authorities. Wages for both groups have dramatically shrunk since the crisis’s onset. Overall, as in Athens’s other touristic neighborhoods, precarity and atypical work arrangements are the norm (union head, M, 8/1/19). Although respondents tend to keep their jobs for longer periods of time compared to workers in Koukaki (Table 6.2, Q1), nearly one-third believed that STRs had a negative impact upon their schedules and wider employment conditions [Table 6.2, Q5].

Whilst our fieldwork revealed important differences between Koukaki and Kerameikos, the two neighborhoods do exhibit at least three similarities vis-à-vis gentrification and employment precarity. These points also apply outside of our research areas, as indicated by interviewees (union head, M, 10/7/19; researcher, M, 9/25/19). First, construction and renovation work associated with beautification projects and the expansion of STRs – work such as tiling, painting, roofing, glasswork, and plumbing – have relied heavily upon informal arrangements. Non-existent contracts, uninsured work, unpaid overtime, and unrestricted hiring and firing are the norm in both (union head, M, 10/7/19). Second, work in STRs involves a variety of tasks, including check-ins/outs, cleaning, transportation of guests, buying supplies for the house, assisting guests through their stay, and providing guided tours, with STR workers usually coming from the host's family and/or circle of acquaintances or being hired through contractors. Those workers coming from informal networks are typically paid cash-in-hand whilst those coming from contractors follow a similar trajectory of precarization to those in supermarkets. In both cases, labour usually works under no (or a misleading) contract with few, if any, benefits and highly irregular schedules, requiring the worker be on standby 24/7 (STR owner, 9/26/19; STR entrepreneur, F, 9/26/19). Last, although hoteling has expanded dramatically over the past five years, especially in Koukaki, the explosion in STRs is often used as a justification by hotels to make their employees' working conditions more precarious so as to compete with the STRs (union head, M, 8/1/19). This has been facilitated by the 2012 abolition of the national collective agreement which had previously given hotel workers some protections. Even though a new agreement was signed in 2018, most hotels in Athens have managed to keep wages and benefits at 2012-2018 levels through subcontracting cleaning and kitchen jobs and forcing extremely flexibilized schedules. As one union head has stated (8/1/19): "There is a hotel in Athens where 90% of the staff is hired through subcontracting, from a company that belongs to the very owner of the hotel."

Discussion: Linking idiosyncratic gentrification and labour precarity as solutions to urban crises

Our research has revealed how gentrification is *supported* by precarious labour but also how gentrification *fosters* labour precarity in two central Athenian neighborhoods. In these neighborhoods, then, the connection between gentrification and precarious labour is reciprocal rather than coincidental; they are mutually-reinforcing phenomena. Moreover, together these two have forged an "Athenian form of gentrification," one largely driven by the explosion of STRs (Balampanidis et al., 2019) and the Memoranda-agreed privatization of public property (Hadjimichalis, 2014). These developments must be placed within the context of semi-peripheral European capitalism, an economic model that emerged in the 1960s and was intensified during the 1990s in the case of Greece. In that capitalism, which largely lacks heavy industry, capital was increasingly invested in the secondary circuit, in the process transforming the built environment (Gourzis and Gialis, 2019; see Harvey, 2017). Such investment created a real estate bubble (Alexandri and Janoschka, 2018) that was exacerbated by preparation for the 2004 Olympic Games as urban planning shifted its focus to mega projects and events, adopting uncritically the neoliberal competitiveness stance that surfaced in the Anglo-Saxon world a decade earlier (Alexandri, 2018; see Smith, 2010). Beautification projects, pedestrianizations, and new athletic facilities and transit stations all reshaped several central and peripheral areas of Athens. However, until the 2008 crisis, gentrification was rather sporadic, affecting only a few central neighborhoods like Psirri, Gazi, and Metaxourgio (Maloutas, 2017).

With the real estate bubble's bursting in 2008, though, investment patterns and employment practices altered profoundly. Construction projects were stalled, or timelines became tighter, and developer profit margins narrowed considerably. Construction jobs diminished and those left are now mostly precarious. Although signs of precarity had emerged right after the completion of Athens's Olympic projects, working conditions became particularly precarious after the second set of austerity measures were imposed in 2012 and the National

Sectoral Agreement was abolished, with construction workers' daily wages falling from €52 in 2010/11 to as low as €19 in 2012 (union head, M, 10/7/19). At the same time, tourism in Athens boomed, especially as tensions in Turkey and North Africa meant that these places became less attractive vacation options[28]. Consequently, the surfeit of unemployed/underemployed labour was increasingly channeled into renovation work creating STRs; one STR owner (9/26/19) estimated that over 90% of construction workers there were so employed. The same applied in the renovation of the cafés, bars, clubs, and restaurants that mushroomed after 2014-15 (union head, M, 7/10/19). Such levels of informality allowed for a substantial transformation of the built environment at a time of significant recession (union head, M, 7/10/19), a phenomenon observed in other South-EU cities like Barcelona and Lisbon (Malheiros et al., 2013; Blanco et al., 2020). In turn, demand for labour in recreational services rose, and many workers were left with not much of a choice but to cater to tourists' needs. For such workers, 2012 also was a pivotal year, as labour precarity grew in response to problems the austerity package imposed on Greece (Mavroudeas, 2014). Median monthly wages in hospitality and catering decreased from about €800 gross in 2012 to around €550 in 2019 (union head, M, 8/1/19). Full-time positions were increasingly replaced by part-time ones, with a salary often below the official poverty line (€380 in 2018), irregular schedules, and casual contract breaching, together with unpaid overtime and incomplete or no social security (Gourzis and Gialis, 2019).

Nevertheless, these radical changes contributed to an influx of international capital and a remarkable expansion of micro-entrepreneurship ventures in catering and hospitality. As a union head (M, 8/1/19) declared, "Because this type of [deregulated] work was extensive it encouraged many businesses to settle in these areas like Koukaki [to] take advantage of the low labour costs. If it was not like that, many of those businesses would not have opened." Moreover, as most such businesses open and close quickly they furthered labour market instability. The availability of precarious labour, then, not only facilitated gentrification but gentrification also fostered precarity.

Airbnb and other P2P accommodation platforms have played an important role in these neighborhoods' transformation, being part of the "micro-entrepreneurship surge" (current resident, F, 14/9/19) and giving the homeowners or even tenants the opportunity to earn income from their dwelling. However, whilst turning their residences into money-making operations helped some of those struggling to retain their position in tightening housing markets, it also helped drive the process of gentrification which was tightening those markets. Furthermore, before long, these casual hosts, usually running only one or two listings, found themselves outcompeted by international investors. As one resident (M, 10/6/19) observed, "many Airbnb apartments were worked by everyday people. It could have been me. But these last two years more sizable investments arrived; there was one building, they renovated it inside out. From a shack, it [now] looks like it was meant to be a boutique hotel." Although some smaller STR operators have managed to stay afloat, they typically do not have the capital to set up a company and hire employees and so end up overworking themselves. "After some point it became so difficult. When I worked with three listings the phone was ringing all night long" (STR owner, M, 9/26/19). Such hosts, often ex-workers in the creative and knowledge economy, have rendered their own overwork and precarity pivotal elements in the rejuvenated gentrification of Athens.

Significantly, this post-recession gentrification is widely supported by the government as a way to upgrade Athens's built environment and boost local economic development. Indeed, apart from a range of laws implementing tax collection rules, no other legislation has been introduced concerning STRs' impact on the

[28] "Miracle in Athens as Greek tourism numbers keep growing", *The Guardian*, www.theguardian.com/business/2016/may/28/greece-tourism-boom-athens-jobs-growth

city. Within this context, touristification has become the new form of gentrification in the city, with STRs expanding at the expense of long-term leases and owner-occupancy rates. Urban activities have increasingly focused upon recreation, a development fueled by transnational capital as well, with “the whole city becoming a tourist resort” (union head, F, 7/19/19). Ultimately, although renovations are upgrading the housing stock, they tend not to provide ongoing employment for local construction workers, nor do they help overcome the substantial problems associated with ageing buildings across the city (union head, M, 10/7/19).

Our findings bring about two additional arguments that are of wider significance. First, despite differences and asynchronous transitions experienced among different city neighborhoods that are “upgraded”, labour precarity is an integral dimension of contemporary urban restructuring, both gentrification-supporting or gentrification-fostered, that should not be neglected nor studied in isolation from broader gentrification trends. As documented, redevelopment in post-2008 Athens came hand-in-hand with precarious labour growth, not as an opportunistic conjuncture but as an integral part of the city’s idiosyncratic type of gentrification – “the evolution of work relations here is closely connected with the growth of catering and tourism during the last years” (union head, M, 8/1/19). In particular, Kerameikos, having seen prior gentrification initiate a timid touristification, is now a highly appealing site of consumption that relies upon the precarious labour of marginal gentrifiers and immigrants, resembling cases in Lisbon and Bilbao (Malheiros et al., 2013). Koukaki, although not previously experiencing gentrification, apart from a short “hipster” boom in 2014, saw a tsunami of recreation- and hospitality-oriented capital arrive after 2016, transforming the area remarkably swiftly and utilizing vast pools of idle labour, similar to Lisbon’s Alfama, which was not particularly gentrified before its recent transformation (Sequera and Nofre, 2019).

Second, the STR development in cities like Athens echoes the largely unregulated growth pattern of the post-war era, albeit in a new and globalized context. It is not surprising, therefore, that similar concerns regarding the impact of STRs on the urban fabric have been articulated in other southern European cities, triggering strong political responses. Most notable amongst these has been the case of Barcelona, where STR-driven touristification and labour market deregulation have enhanced residential segregation, thereby rendering housing the key issue in several local elections (Blanco et al., 2020). The interplay of labour precarity and touristification in the Mediterranean city, we argue, is forming a distinct spatial dynamic that is reshaping urban fortunes along exclusionary lines, as central city districts in southern Europe were and primarily are residential location areas.

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7: Integrative Chapter

Introduction

The Dissertation at hand has sought to scrutinize the relationship between the gentrification of urban central cores on the one hand, and the labour flexibilization that spurs extensive precarity across inner-city labour markets on the other. In the Integrative Chapter here, the findings of all previous chapters will be revisited in order to formulate a coherent argument in favor of the existence of this relationship.

Summarizing the research conducted in the previous chapters and the findings it has brought to light, gentrification in post-2008 Athens came hand-in-hand with precarious labour not as an opportunistic conjuncture but as an integral step in the city's growth model. This post-recession redevelopment found fertile grounds in-between a rent gap shaped by plummeted land values due to an enduring crisis on the one hand, and Olympics-related infrastructure/amenities on the other, further valuated by the explosion of urban tourism Athens experiences in recent years. The above have framed the *idiosyncratic* form of Athenian gentrification: mostly agent-led, and manifested through fragmentary investments which are not orchestrated by any centrally-implemented planning framework. Such a framework would either way be difficult to be devised considering the widely fragmented micro-ownership of the Athenian urban space. However, albeit *discreet*, the central state as well as the regional/metropolitan governments have maintained a crucial role, enhancing symbolic capital and regulating the hyper-tertiarization of Athens's economic base through zoning regulation. The two Research Areas, despite their disparities and asynchronous transitions, have provided a concrete empirically-driven view on the various facets the reciprocity of gentrification and labour flexibilization takes in contemporary Athens. For one, Kerameikos utilized past gentrification amenities to establish a highly appealing site of consumption which relies upon the precarious labour of immigrants and marginal gentrifiers. Koukaki, without having experienced gentrification apart from a short "hipster" boom in 2014, eventually experienced in 2016 an "instant spatial fix" of tourism-oriented capital which utilized vast pools of idle labour across the city.

In terms of structure, this chapter starts by briefly discussing some key methodological choices, and then describes the main challenges faced during this research. In its next part, it uses a narrative chronology divided in three sub-chapters in seeking to formulate a coherent argument that draws upon the theorizations and findings presented in Chapters 2-6. More specifically, the first section sheds light upon processes operating at larger scales preceding the 2008 economic crisis which affected urbanization and production structures in Greece. The second section explores the impact of the global economic crisis –which plunged Greece into a deep recession that still rages on– in the reorganization of urban space and labour markets in Athens. Last, it examines the connection between gentrification and labour flexibilization/precarization within the context of rampant touristification which "takes over" many central Athenian districts during the last five years (2015-20). The above three sections address in a comprehensive manner all three Research Questions as posed in the Introductory Chapter: namely, which are the specific reciprocal links between gentrification and labour flexibilization/precarization, what is the impact of economic recession upon this relationship, and what is the role of larger scales in the processes unravelling at the intra-urban level. After engaging with the Research Questions on an empirical level, the chapter proceeds by outlining a Labour-sensitive Theorization of Gentrification, with a clear geographical focus upon the EU South. Last, Chapter 6 closes by presenting some directions for future research.

On methodological choices

The research at hand has utilized a wide array of sources and methods. In the separate papers, different units were used, which were not always uniform or compatible. Below, these methodological choices are explained.

Chapter 3 bases its analysis on data on involuntary part-time employment specifically. This methodological choice resonates with accounts attributing this type as being the most accurate proxy for the inquiry of underemployment (see Green and Livanos, 2016 for the context of the UK). In Greece in particular, involuntary part-time waged employment constitutes one of the most common forms of precarious work. Voluntary part-timers occupy a relatively small proportion of all part-time employment (around 20%), reflecting a condition where young people now entering the labour market often being forced to accept part-time work because full-time work is not available. However, Greek labour markets are characterized by blurry boundaries between such part-time work categories. Overall, most of part-time employment arrangements in the country refer to low quality jobs, despite specific accounts advocating for the opposite (see Lymperaki and Dendrinos, 2004). Remuneration is quite low for all segments within part-time employment (typically less than 400 Euros per month), whilst benefits are either negligible or non-existent. For all the above, Chapter 3 also incorporates total part-time employment figures as auxiliary to involuntary part-time employment ones.

In the chapters after Chapter 3 working with employment figures, analysis is based on the waged segment of part-time employment, and the division between voluntary and involuntary. This can be justified as part-time workers who are employed by others are typically much more precariously employed than those who are self-employed. Specifically, in Chapter 4 and Annex II, which constitute a continuation of the analysis of Chapter 3, waged part-time employment becomes the main unit of measuring underemployment. However, it must be noted that figures of total and waged part-time employment variate: a direct comparison between the analyses of Chapter 3 on all Greek regions in terms of total part-time employment and involuntary part-time employment, and of Chapter 4 on the region of Attica in terms of waged part-time employment is not possible. For such reasons of data incompatibility, Annex II incorporates the scopes of Chapters 3 and 4, inquiring the regional labour markets of all Greek regions and of the metropolitan regions in particular, using uniform types of data. Namely, Annex II works with data on total employment, as well as waged part-time and full-time employment. This way comparisons between all periods of study refer to the same type of employment and the findings of Chapter 3 can be juxtaposed with those of Chapter 4. This way, insight from Chapter 3 retains its significance and analytical validity throughout the next chapters and stages of research.

The choice of turning to waged (part-time) employment reflects a more mature phase of the Dissertation, in its attempt to avoid the pitfall of regarding a high-skilled labour force (e.g. lawyers, engineers, etc.) which works part-time as casualized and underemployed staff. Moreover, the decision to exclude self-employment was conscious, in order to move away from the already voluminous literature on creative activities and freelancing workers.

Another important issue that must be noted here is that there are substantial inconsistencies among different sources and statistical authorities in Greece that measure part-time employment. The labour surveys by the National Statistics Authority give out a much smaller share of this employment type in total employment figures than the employment contracts database of the Ministry of Employment. Actually, union representatives referred us to the latter as being closer to the actual situation (union head, F, 9/19/19; union head, M, 8/1/19; union head, 10/7/19); however, unfortunately, during the course of the research there was no access to this database, as it is not public.

A last regarding data that must be mentioned here concerns data on fixed capital formations per investment product. These that were used in Chapter 4 refer to the national level, but in the analysis that follows these figures are used to inquire the spatial fixes of Attica as well. The use of national data in the analysis of Attica's trajectories constitutes a necessary compromise due to lack of such data at the regional level. However, the majority of domestic construction activities and the largest part of the labour force is either way located in the capital metropolitan region, making this involuntary choice justifiable.

Challenges of research

The most important challenges in conducting this work emerged due to its character as a mixed-methods approach, and its multitude of Research Stages and Research Methods. The main challenges in successfully completing this Dissertation are the following:

To conduct an analytically rigorous research utilizing primary and secondary data, as their compatibility was naturally limited. To meet this challenge the implementation framework was cautiously devised, incorporating multiple methods that sought to validate and 'triangulate' findings – a practice common among post-positivist approaches. The same course of action was followed to meet the challenge of combining quantitative and qualitative data.

The lack of Data available at the intra-urban level, which led to the slight differentiation of the methodology during the course of research. Initially, the implementation framework was relying on microdata with a geographical reference at the neighborhood level, in order to use them as quantitative data in the empirical analysis. However, as surveys by HELSTAT are mostly based on samples which are relatively small, the coveted level of analysis was not based on a representative sample and it was leading to statistical errors. Instead, it was chosen to work solely with primary data at that level.

The long process of publishing, which stalled the development of the Dissertation as a whole at various points. Besides its slow pace, the high status of journals chosen raised the level of difficulty in submitting a paper successfully. However, the above led to –I believe– a high-quality text, which has been reviewed by esteemed reviewers and editors multiple times during each reviewing process.

Regarding the interviews with key informants, two were the main obstacles. First, the hesitation of many contacts to accept the role of key informants, often due to lack of available time, which slowed the stage of conducting semi-structured interviews. In multiple occasions it was required for an alternative interviewee, as those initially chosen eventually denied an interview.

Second, the operationalization of data obtained through these interviews. Often, the subjective point of view of an interviewee could easily disorient research and findings; indicatively, in cases where more than one people of similar capacity, it was noted that their views on the same issue were sharply different. For that reason, a cautious narrative analysis was implemented on interview transcripts, mitigating the 'distortion' of findings. However, as Critical Realism advocates, the theory-ladenness of social research means that the subjectivity of the researcher and his/her sources is impossible to be erased from the very scope of research.

Regarding the structured questionnaires, three were the main limitations. First, the sample size (126 questionnaires in total) did not allow for findings to carry a substantial statistical significance. In any case, the survey was not designed to generate statistically representative samples but to elucidate particular insights and provide revealing information.

Second, the sampling method, being snowball, did not allow for a random and representative sample. Moreover, another drawback of the snowball sampling method is that respondents must be visible and available at the street level, in order to be chosen as such, even though in the research at hand, some respondents were found through networking. A side result of the above was that the sample of employees and business owners/managers mostly referred to specific types of activities. Regarding employees, the questionnaires mainly addressed people who work in retail, services, and hospitality; regarding business owners/managers, the survey mostly addressed establishments visible from the street, namely ground floor shops, offices, workshops, cafés, bars, and restaurants. The latter sample was adequately diverse nonetheless comprising a wide array of businesses' types – even with the known limitations of snowball sampling. Another side result of snowball sampling became apparent with the residents' group; the respondents usually directed us to more people of their circle, who potentially shared similar views and experiences. To overcome this setback, it was ensured that after a few questionnaires of one 'thread' of respondents, new threads were opened. Ultimately, it was made sure that the sample could in any case cover adequately the spectrum of activities that were crucial considering the subject of this research: namely, questionnaires mainly addressed workers and owners of businesses perceived as endemic in gentrifying landscapes (the specific types of such ventures are extensively discussed in Chapters 2, 3, and here below).

Third, the questionnaires, due to the type of questions included, but also due to the need to be quick, were limited to provide the image of the neighborhoods real-time, like a snapshot. To overcome this obstacle pertaining to the temporal scope of the research, the interviews with key informants were cautiously designed in order to incorporate more than just a current view of the research areas and issues addressed. In fact, the insight drawn from questionnaires' respondents was subsequently utilized in the articulation of interview questions.

Paving the way to disrupted capital switching: socio-economic development vis-à-vis phases of urbanization in the Greek long 20th century and early 2000s

A longstanding feature of the domestic economic model has been the preeminence of the constructions sector over industrial production. This growth model has been characteristic of many peripheral economies of the Mediterranean EU since the first postwar decades, even though in the case of Greece it has exhibited a notable consistency and intensity. Research conducted within the framework of the Dissertation at hand has unveiled the dominance of the secondary circuit (production of space) over the primary one (commodity production) at least since the mid-1990s (Gourzis and Gialis, 2019); however, this balance had already been shaped since the interwar period and the Great Depression era, where domestic growth patterns prioritized constructions above all other activities. Already since that period, the sector abounded in informal working arrangements which were embedded in the reproduction of labour in Greece; nonetheless, such practices led to an increasing income and prosperity of the breadwinners and their families (Leontidou, 1990). Moreover, these informal practices were not limited within the building trades. On the contrary, "traditional" forms of flexible and atypical employment dominated Athenian labour markets in general, including a wide array of arrangements such as family helpers, undeclared labour, seasonal labour, and other forms of part-time labour. Deeply embedded in Athenian urbanization throughout this whole period, the prominence of such practices invalidates accounts attributing a lack of flexibility and rigidity upon Greek labour markets – a narrative that was used to provide an exegesis for the demise of most sectors in Greece after 2009, and furthermore, that was widely used to support the Economic Adjustment Programmes that were implemented at that time onwards (Gourzis and Gialis, 2019).

The lack of Fordism-indicative productive structures such as heavy industry was reflected upon the diachronically low shares of waged employment. Specifically in Athens, the part of urban population employed under typical waged arrangements had been limited, leading to a typically Mediterranean urbanization pattern characterized by highly mixed sites of urban work, infrastructure, and housing. Atypical, informal, and *traditional* forms of flexible labour went hand in hand with unregulated planning, continuous violations of labour law provisions, and tax-evasion. This is not unrelated to the diachronically weak welfare provisions, which directly subsidized the unemployed instead of giving incentives for employment; this rather paternalistic stance on behalf of the State was not limited to workers, but also to entrepreneurial endeavors. Illegal acts of tax evasion, as well as a wide array of other informal practices that were not illegal (such as ‘antiparochi’), came to complement the lack of strong welfare provisions, being the other side of the same coin in Greece’s peripheral (and often presented as ‘informal’) capitalism.

Thus, investment capital flowing out of the primary circuit and into the secondary one expressed a logical response to the diachronically lagging industrial output, as the domestic industrial model has traditionally been oriented towards outdated products of low added value, in the absence of heavy industry. Such flows also expressed an attempt to upgrade and modernize transportation and industrial infrastructure – a central element of the EU convergence narrative. For many decades, and until their abrupt subversion in 2007-08, these flows coincided with an expansion of operating surplus levels (Eurostat, 2018), signifying often overaccumulation tendencies. All the above reveal that such tendencies in Greece were, inter alia, handled through urbanization (Chorianopoulos et al., 2014).

Within the segment of investments referring to the built environment, fixed asset formations related to infrastructure and newly built industrial plants were substantial, especially when considering that parts of this invested capital aimed at rationalizing the outdated domestic industrial structures, but retrospectively, they have been deemed as rather limited (IOBE, 2015). Instead, the better part of this capital was invested in housing, conveying a distinct type of urbanization, which bore two central characteristics. First, Athens’s “urbanization without industrialization” – a characteristic element of many other cities in the Mediterranean EU, coming in contrast with their Northern-European peers, which have traditionally spread around newly-opened factories. For Athens in particular, expansion during the postwar period was never associated with newly established industrial plants. Nevertheless, small-scale manufacturing was deeply integrated into the urban fabric since the first decades of the 20th century, with these activities being part and parcel of a mixed land-use pattern of urbanization (Leontidou, 1990). The pre-war petit-bourgeois micro artisan activity eventually turned into profitable mid-size manufacturing during the 1960s, drawing upon a vast array of informal work and production practices. However, this activity was essentially bound by a conflict with service activities and residential uses, and –especially after the international industrial crisis of the 1970s– it was seen as restricting profitable investment in real estate. However, as most middle-sized businesses operating in downtown areas eventually started to disperse the periphery of the city, hindered suburbanization plans there. The above contradictions led to a centrally-devised plan of urban and inter-regional deindustrialization, which led to the relocation of activity to specific designated industrial areas post 1970s (Petrakos and Psycharis, 2016). Eventually, the generalized policy turn towards free-markets and away from protectionism drove a considerable number of businesses located in these industrial zones out of Greece in search of lower labour costs. This domestic “industrial drain”, plus the profound vulnerability of remaining production, stroke a heavy blow on employment conditions for the workforce in manufacturing already since the 1990s. However, albeit Greek industry was pushed out of profitable markets, decline in the sector was not addressed as alarming, as it was generally deemed obsolete, and on the upside, facilitated urbanization (Chorianopoulos, 2010).

The second characteristic of Athenian urbanization pertains to the limited role of formal and central planning, which mainly pursued soft’ and spatially limited planning practices (Beriatos and Gospodini, 2004). This resulted in a ‘spontaneous’ type of urban growth, led by both state- and privately-led interventions, which in any case were mostly small-scale. Public expenditure for infrastructure was rather limited, with the largest share of construction-related capital sinking into private housing or small-scale shops/factories projects. *Congenitally*, the issue of housing was addressed in an unorderly fashion already since the 1950s through the practice of ‘antiparochi’ (Vaiou, 2002; Hadjimichalis, 2014). This practice refers to the arrangement between the landowner and a contractor, where the former conveys a plot of land to the latter, who in turn undertakes the erection of a multi-story apartment building; this agreement provides that the landowner will be given a number of those apartments, with the contractor selling the rest to interested buyers for profit. Most such contractors, at least until the recent economic crisis, led small companies with limited capital, which was coming mainly from credit. Following the domestic growth model which was constructions-oriented, banks offered loans predominantly for housing construction (or acquisition) rather than setting up or modernizing production (Hadjimichalis, 2011). In this case, the exclusion of manufacturing from credit does not constitute a Greek-specific phenomenon, as it has been observed across a wide spectrum of countries throughout the post-Fordist period, such as the UK (Tily, 2017) and the US (Christophers, 2011). As a result, most of Athens's postwar urban housing was constructed through the practice of antiparochi, as it constituted a profitable deal for both parts, landowners and contractors – given of course that the economic cycle is at the expansion phase. The dense building blocks and the vertical construction which characterize most of the Athenian urban core reflect the abovementioned practice on a material level. Within the multistory apartment buildings, a form of vertical social stratification emerged, as distinct as the Greek archetype; upper floors are typically owned/rented by middle- and upper-class households, whilst lower floors by poorer ones. Moreover, the housing needs of immigrants from Eastern Europe and the Balkans arriving in the country 1990 onwards were met within the same context, as they started occupying apartments in the first floors, or even entresols and basements not used as warehouses by nearby businesses. This way, the housing requirements of most of Athens's population were addressed without much of a coherent government housing policy; more so, planning authorities have been turning a blind eye despite its informal character, as the rapid urbanization sustained by antiparochi was perceived as economic expansion (Leontidou, 1990; Chorianopoulos, 2010).

It is because of the above features of Athenian urbanization and the rather *discreet* –yet paternalistic– role of the state, that gentrification has been doubted as a process in domestic literature, being a term too tied to the context of industrial cities in the Anglophone world. Still, the relevant literature has identified concrete examples of gentrification in Greece, and Athens in particular (see Alexandri 2015, 2018; Avdikos, 2015; Balampanidis et al., 2019). Such a case is the redevelopment of the historical neighborhood of Plaka, which is located right under the Acropolis Hill. During the mid-1980s and early 1990s, the area was transformed through a series of state investments and the imposition of a tight regulatory framework for land uses and building preservation (Alexandri, 2018). The case of Plaka constitutes an interesting case, as it deviates from the common urbanism practices implemented in Athens, being a primarily state-led intervention; moreover, it stands as a precursor for subsequent shifts in planning practices.

It is widely regarded that the Olympic Games of 2004 constitute a turning point for urban planning in Greece. Domestic urbanization shifted from the 'soft' planning practices and spatially limited interventions (Beriatos and Gospodini, 2004) to large-scale projects and profound interventions scattered across the whole Metropolitan Area of Athens (Leontidou et al, 2007). Urban planning in Greece uncritically adopted a neoliberal competitiveness-driven stance, following the example of practices encountered in the Anglo-Saxon context already a decade earlier (Alexandri, 2018). This shift started surfacing already since 1997, the year Athens won the bid. At the time, investments in infrastructure started following a steadily expansionary course. Moreover, some distinct periods exhibited feverish activity directly associated to the construction of Games-related infrastructures; such activity should not be seen unrelatedly to the Euro-currency financialization era of the 2000s (Gialis and Gourzis, 2019). The upgrading of infrastructure included prominent projects, some of which took off even before the bid in order to consolidate Athens's position in the competition -its main rival then in undertaking the Olympics being the city of Rome; among those was the new airport, the metro network, and the Olympic Stadium of Athens. Especially the first two transformed the city, guiding it into a transition from the pre-Olympics phase of urbanization to a post-Olympics one. When Athens won the bid, the funneling of investments in the built environment avalanched with numerous projects added to the Olympics-related infrastructure. Wide areas across the Metropolitan Area's waterfront were redeveloped to host Olympic activities, with the prospect of being redesigned afterwards for post-Olympics use (Beriatos and Gospodini, 2004; Leontidou et al, 2007; Alexandri, 2018).

Photo 1 (right): The Archaeological Promenade in Koukaki (Areopagitou street).
Photo 2 (left): The area of Gazi turned into a landscape of mass entertainment by the early 00s.
Source: Fieldwork

Parts of the historical center were redeveloped, and their building stock of neoclassical architecture was extensively renovated. A large-scale pedestrianization project was partially implemented (some parts of the initial plan are yet to be realized some 15 years later), forming up an “archaeological promenade” which connects most significant cultural sites of the city center. This project highlighted many areas of the historic center including the northern part of Koukaki (one of the Study Areas of the study at hand), where the uplifted Areopagitou street (Photo 1) is located; the pedestrianization and redevelopment of this location ‘uplifted’ the status of its surroundings in general, playing a central role in the shifts Koukaki exhibited some years later. Additionally, numerous beautification works addressed degraded streets and sidewalks – even billboards deemed as unaesthetic were taken off (Leontidou et al, 2007). The sheer volume of interventions, albeit being scattered across the city, reformed several areas and reorganized the inner-city profoundly. Such interventions in the built environment were complemented by a series of zoning restrictions, targeting uses deemed as causing nuisance (warehouses, leather items manufacturing, etc.) and facilitating residential and recreational uses. It did not take long until particular central neighborhoods started exhibiting gentrification tendencies: for instance, Psirri, a central area within the Commercial Triangle quickly became a vibrant nightlife spot. Shortly afterwards, Gazi turned into a “village of mass entertainment”; Photo 2 shows the square located at the center of the area, where table seats occupy –as a result– large parts of the public space. The increased role of the state in the process, as well as the influence of a “national endeavour” such as the Olympic Games, imbued a “systemic character” to the cases of gentrification of that era.

Besides the abovementioned cases, Kerameikos (one of the two Research Areas) became a characteristic case of Athenian gentrification, with such processes unravelling shortly after the beautification and renovations projects that were implemented during the late 1990s and early 2000s. The rebranding of the neighborhood in combination with its cheap real estate attracted many cultural uses that were ousted by expensive adjacent areas. Specifically, many theaters and galleries which had initially settled in Psirri, subsequently ‘fled’ to Kerameikos after the former became unaffordable. Nowadays Kerameikos abounds in such spaces, one of which is shown in Photo 3. The area, however, did not see those processes culminating until it got its own subway station in 2007; then, investors appeared with an integrative plan to reform the neighborhood, including the acquisition of the several vacant buildings of the neighborhood and their reuse as student flats and office spaces for businesses of the quaternary sector. Although this plan was never realized on full extent, as it was abruptly terminated because of the recessive shocks in 2009, some ventures related to information technologies eventually settled in the area (one of which is shown in Photo 4).

Photo 3 (left): One of the numerous theaters of Kerameikos.
Photo 4 (right): One of the few IT businesses, part of the 2000s plan to turn the area into a quaternary sector hub.
Source: Fieldwork

All the above make clear that the 2004 Olympics stood as a "Trojan Horse" in order for gentrification successfully migrating to the Greek context, resonating with Smith's (2010) postulations, as he had attributed this capacity to large EXPO events in general. However, gentrification in Athens until the onset of the domestic debt crisis in 2009 was rather sporadic and it was only observed in a few specific central neighborhoods. The main reason for that is that gentrification in Athens was impeded at this point by local context-specific idiosyncrasies – namely, the extensive level of micro-ownership, or conversely, the fragmented landscape of ownership in the Greek capital city (Maloutas, 2017). Even in the documented cases of recreational gentrification of that period, emerging vibrant loci coexisted side by side with vacant areas and dilapidated buildings. Areas such as Gazi still exhibit this type of 'fragmented' gentrification tendencies, where redeveloped building blocks neighbor with visibly devalued ones; Photo 5, which shows a large dilapidated building, was taken just around the corner from the location of Photo 2 and the landscape of large-scale recreation.

Photo 5: Dilapidated buildings in the area of Gazi.
Source: Fieldwork

An additional element which pinpoints the role of the Olympic Games in the reshaping of Athens's urban fabric in terms of gentrification is the course of investments in the built environment throughout the 1990s and 2000s. Beyond what was discussed in the beginning of this section, substantial insight can be drawn when one delves into the volume of investments in the built environment. Therein, despite the preparation for the Games and the realization of large infrastructure projects, housing-oriented investments retained their dominant position within the sum of fixed capital formations in constructions. Until the early 2000s, investments in other constructions stayed close following an expanding course. Interestingly, after 2002, albeit the country was entering the final years of preparation and multiple projects were bult "in the last minute", investments in housing exploded leaving those in the rest of constructions far behind. The above describe a generalized "constructions fever" that was initially fueled by Games-related infrastructure (as mentioned above), but was eventually led by housing construction. As the study shown in Chapter 4 showed, the years between 2002 and 2007 saw the further rechanneling of capital from manufacturing into constructions – what we coined as a "disrupted capital switching", as it emerged in two separate periods divided by a short hiatus right after the completion of the Games. Even though in both housing investments exceed those in other constructions, especially the second (2005-07) marks the peak of an explosion in housing construction activity (Gourzis and Gialis, 2019).

The accretion of capital fixed in housing lasted for the better part of the 2000s, qualifying the constructions sector as the steamroller of the Greek economy. The sector became one of the fastest expanding in the country employment figures-wise, resonating with the trajectories of other similar peripheral economies in their attempts to increase demand and overcome anaemic industrial exports (Hadjimichalis, 2011; Petrakos and Psycharis, 2016). Simultaneously, diachronically dynamic sectoral labour markets, such as of tourism and hospitality, retail, and public administration/education, saw workforce numbers increasing as well. Nevertheless, sectoral imbalances were apparent, as employment figures in manufacturing were receding even without the pressure of an (incoming) economic crisis (Gourzis et al., 2018). Eventually, the dominance of urbanization over industrialization ended abruptly in 2007, as the housing bubble created throughout the 2000s went bust. Interestingly, the crisis in constructions occurred a year before the Global Economic Crisis of 2008, and two years before the latter's *arrival* in the country – an arrival manifested through the harsh regulatory reforms included in the first Economic Adjustment Programme (Gourzis et al, 2020). Ultimately, the permanent disruption of capital flows into the built environment ended a long construction-led cycle, marking its failure to achieve a rationalization and modernization of production-related infrastructure (Harvey, 2017).

In what has been argued above, Athens presented sporadic but consolidated gentrification loci throughout the 1990s and 2000s, mostly emerging as an outcome of the preparation for the Olympic Games, but also intertwined with diachronic urbanization patterns within the Greek capital city. These pre-crisis forms of Athenian gentrification can be summarized through two main cases. For one, the state-led restructuring of Plaka during the early 1990s, through which the State aimed for the preservation of a neighborhood with high historical significance. In this endeavor, rezoning was used as the main tool, with land uses perceived as causing nuisance (warehouses, urban manufacturing, dilapidated housing) being replaced by high-status housing and recreational activities. In the second case, occurring much closer to 2004 and the Olympic Games, state interventions were far more aggressive and hands-on. Redevelopment processes were activated through fast-track procedures, whilst rezoning plans promulgated in the Regulatory Plan of Athens already since the 1980s were again used as leverage. Widespread projects, including large-scale pedestrianization and beautification projects, affected a multitude central Athenian neighborhoods, resulting in many of them exhibiting gentrification signs, with Kerameikos, Gazi, and Psirri constituting characteristic examples. In both types of pre-crisis gentrification outlined above, changes in planning framework and rezoning was of crucial importance; the increased role of the state imbued a 'systemic' character to gentrification forms unravelling during this period. This systemic character does not only refer to the level of engagement by governmental institutions, but also reflects the connection of gentrification with wider economic conditions. Specifically, pre-crisis gentrification evidently follows processes of capital switching: spikes in housing-related investments and the pertinent inflow of capital unto the built environment occurring in 2002-04 and 2005-07 was observed to coincide with the anchoring of gentrification tendencies. Labour conditions were affected by the abovementioned transitions, especially through urban manufacturing displacement – gentrification forms during this period signified the tertiarization and destabilization of intra-urban labour markets, which, in turn, furthered gentrification tendencies that unraveled in the subsequent period. Equally important, it must be noted that such tertiarization must be seen in conjunction with wider trajectories, and the diachronic lagging of domestic productive structures in particular. Within the context of Athens, urban manufacturing was forced to maintain "defensive stance", even in cases of ventures exhibiting profitability. In reality, uses were ousted as obsolete from the urban core, in an attempt for Athens to fulfill a "normative idea" of what its modern status should be. Interestingly, these observations resonate with the case of manufacturing displacement in New York throughout the Post-Fordist era (Curran, 2007).

The collapse of labour markets nationwide and the mutation of gentrification forms in Attica during the years of deep recession (2009-14)

Photo 6: Several construction projects are left unfinished for several years.
Source: Fieldwork

The successive blows coming from the first turbulences due to the global economic crisis in 2008, the sovereign debt crisis in the EU in 2009, and the signing of the First Economic Adjustment Programme (the first memorandum) in 2010, made clear that the Greek growth model was extremely vulnerable. Real estate was among the fields where the impact of the above was most apparent, as property values shrunk and the number of transactions was severely limited. During the years of economic expansion and financial speculation that preceded the crisis, many small-scale contractors sought to "grow out of antiparochi" and pursue wider profit margins by building housing projects in land they had bought themselves. Even though during the expansionary period of mid-2000 selling such apartments proved profitable indeed, after the onset of the crisis, many contractors found themselves deeply exposed to debt. Chances of selling housing stock got dim, and moreover, the value of which was either way plummeting. Even large-scale construction companies lost access to capital, as banks abandoned lending for several years. From 2009 until 2014, the so-called "years of deep recession", almost all large construction projects were stalled, real estate was profoundly devalued, and the notable suburban expansion of the previous decade was impeded. The view of building frames left in this state for years became a common sight across many urban agglomerations in Greece, and more so in Athens (see Photo 6). The declining course in the sector was reflected upon sinking contribution to GDP, as almost half of construction companies in the country halted their operations. It has been estimated that more than 30% of the total impact of the recession can be attributed specifically to the construction sector (Gourzis and Gialis, 2019).

Once this steamroller sector collapsed it brought employment numbers down nationwide, which were halved within just three years: from 370.000 in 2009 to 200.000 in 2012 (today they are as low as 150.000 [mid-2020]). Beyond the shocking workforce shrinkage, those workers who managed to keep their jobs suffered a low-road flexibilization that led them into precarity. It is indicative that whilst total in the sector was crumbling, the segment of part-time nearly doubled (Gourzis and Gialis, 2019). The true magnitude of this meltdown was sealed with the dismantlement of working conditions, brought by the second memorandum. Voted in early

2012, this agreement provided that the National Sectoral Agreement was abolished; quickly, daily wages fell from €52 to a low of €19 (Union Head, M, 10/7/19). It should not be overlooked however that labour devaluation in constructions came gradually, with signs of fatigue looming already since 2005; during the short hiatus that followed the completion of the Olympic Games the sector lost a part of its hitherto dynamism.

As a result, constructions, saw simultaneously the largest increment in underemployment and the sharpest decline in wages, out of all sectors in the country (INE, 2016). These coinciding developments should not be seen separately from each other: the expanding underutilization of labour could hardly be incorporated into 'rational' labour practices in construction works, despite the sector having a long tradition of informal and atypical working arrangements such as seasonal and informal employment. Low-waged underemployment dominating the sector post-2008 confirms its deep structural crisis, which led in turn to fundamental changes in the trajectories of Greek urbanization, as constructions refer to the process of the production of space itself. Notably, the timeline of surviving projects became considerably tighter with exceptionally narrow profit margins for small developers – competition among them became fiercer, and as mentioned before, many of them were forced out of the market during the first few years of economic recession. Moreover, the majority of the projects that eventually started amid crisis were ditched shortly afterwards due to the contractors' severed access to credit, whilst the aged domestic building stock was left with inadequate maintenance. Regarding the bigger-scale and costly projects, the sector became an oligopoly, with only a handful of large companies maintaining their profitability and surviving this period.

While constructions were collapsing, parts of circulating capital regressed back to the circuit of industrial production – a development resonating with the "cyclical transposition hypothesis", which advocates the palindromic movement of capital with a periodicity of 15 to 25 years (the Kuznets cycles; Harvey, 1978). However, this did not stop the rapid deterioration of manufacturing, resuming a 'drain' that had started even pre-crisis. Thus, the sector's 530.000 workers in 2009 (which as a number is almost double that of constructions), decreased to 360.000 in 2012. Simultaneously to profound employment losses, a remarkable flexibilization occurred, similarly to what has been observed with constructions. This underperformance underlined the chronic deficiencies of domestic industries such as the relatively small size of businesses, the scarcity of technological innovation, and the lack of credit necessary for capital-intensive production, which rendered them particularly vulnerable to international competition and put them under stress well before the onset of economic recession.

Attica found itself at the epicenter of a catastrophic crisis, failing to ameliorate the simultaneous collapse of constructions and manufacturing. It is striking that the capital metropolitan region, despite its diverse sectoral composition and its nodal role in in productive chains and supra-regional hierarchies, suffered disproportional job losses, whilst labour underutilization expanded more rapidly there than in the rest of the country. Albeit part of Attica's flexibilization can be attributed to the high share of service activities (Gialis and Leontidou, 2014) and the expansion of the creative economy (Avdikos and Kalogeresis, 2016), the worsening of part-time jobs quality comes in contrast to the trajectories of Northern European conurbations (for London see Green and Livanos, 2015). Attica's crisis pinpointed that metropolitan regions are not necessarily more robust and less crisis-prone, with such findings resonating with those concerning other cities of South EU, such as Naples and Lisbon (Gialis and Leontidou, 2014). More so, it was pinpointed that the Greek economic crisis was primarily a crisis of its capital metropolitan region and of the labourers living therein.

The first years of recession left Athens's urban fabric deeply scarred. Alongside losses in constructions and manufacturing, those in hospitality and commerce predisposed for the profound dismantling of the city's spatial fixes. The case of Stadiou street constitutes an eloquent example of the above: one of the most central arteries of the capital, abound in cafés, retail, and office buildings, turned into a devalued site of vacant spaces within a very short period of time. Construction projects of various scales followed the same fate across the city, remaining idle for many years, whilst numerous structures stopped halfway. Firms in the sector found a temporary solution in accelerating labour turnover time, with capital hoarded and trapped within the secondary circuit being used within a context of further labour devaluation. This of course did not manage to restrain layoffs, but it outlined the emerging type of urbanization. Projects were downsized and focused upon small-scale work and renovations. The necessary work started being carried out solely by informal workers, regardless of the type building trade; the smaller the project, the more likely none of the work was officially declared (union head, 10/7/19). Amid this reality, the exploding activity in petty constructions that occurred in the following years (2015-19) has not been reflected upon employment numbers at all (Herod et al, 2020). As profit margins in small projects narrowed down, pressure from the property owner to the engineer/architect was in turn passed on to tradesmen; many of the latter then appeared as working solo, whilst in reality they were recycling assistants without any sort of employment contract, with labour inspectorate being unable, if not unwilling, to trace these informalities. Many of those tradesmen who managed to keep their businesses afloat during the first recessive years, then, gradually adopted a highly deregulated employment framework for their operation, characterized by nonexistent contracts, uninsured work, unpaid overwork, and unrestricted hiring and firing.

While Athens became the largest, in terms of total volume, container for sporadic and precarious underemployment, such shifts cannot be seen separately from nationwide trajectories. In order to address the third Research Question and the impact of wider scales upon urban localities, three mechanisms which operate across all Greek regions to some extent were identified in Chapter 3 and revisited in Chapter 4. The capital metropolitan region, embodying the regional unevenness of the Greek socioeconomic formation better than any other geographical entity, functioned as a mirror reflecting their impact at the local scale more vividly than the rest Greek regions (Gourzis et al, 2018).

The first mechanism pertains to capital restructuring due to a series of productive-technological inadequacies. Greece failed to use innovation and best practices to get rid of its labour-intensive, semi-dependent secondary structures, and follow the example of countries of the EU core. As a result, the escalating global competition and the post-2008 turbulence brought structural imbalances to the forefront, proving fixed capital devaluation and falling industrial capacity to be inevitable. Furthermore, the compound effect of two core sectors (manufacturing and constructions) collapsing spilled across the whole economy leading to an intense fall in domestic consumption (INE, 2016). Amid this bleak situation, many ventures were forced into a “marginal living” and turned to precarious labourers or family helpers for their survival.

The second mechanism refers to emerging market-driven organizational priorities. Beyond the necessity of reducing labour costs to survive, the shift to part-time employment exposed the recalibrated analogies between the appropriation of full- and part-time jobs by firms. Occurring as a “market response to recession”, these new analogies did not only spur underemployment for a wide segment of workers, but also produced an expansion of the workday. Failing sectors such as constructions and manufacturing were not the only ones to be affected, as booming activities like hospitality or food and drink followed the same practices. The new norm in many sectors, including most service- and retail-related jobs, is for overtime, underemployment, and job rotation to coexist in a close symbiotic relationship. This multifaceted working reality has very often been forced upon the same employee, depending on demand. In addition to the above, the expansion of gig economy practices and baseless freelancing outlined a setting of extreme work casualization as an emerging priority, applying regardless of the occasional performance of a firm or sector.

The third mechanism concerns the horizontal implementation of new institutional and welfare provisions. The regulatory reforms 2010 onwards which took the form of “Economic Adjustment Programmes” have spurred employment precariousness in Greece. With wages for part-time work often being less than 300 Euros per month –which falls below the poverty line threshold–, most workers are certainly not keen on having their contracts flexibilized. However, with dismissal restrictions removed, they have been rendered even more cheap and vulnerable, with no power to negotiate.

Interestingly, the above mechanisms are praised by EU bureaucrats and Greek elites as leading to a "*creative destruction*" – one that has the capacity of effecting change. For that reason, these mechanisms have been *activated* on purpose across many conurbations of the Mediterranean EU besides Greece. Their incorporation into historical particularities and 'negative southern idiosyncrasies', however, lacked the cautiously devised long-term strategic planning which would administer development prospects and provide with amenities, work-related infrastructures, and labour-focused welfare provisions (Gourzis and Gialis, 2019). Alas, these spatialized contradictions effected change indeed: the deregulation of labour framework and the steep worsening of working conditions, in conjunction with the crucial weight of the disinvestment-investment sequence across many central areas, have led Athens into a renewed cycle of expansion, albeit through becoming a site of greater exclusion and higher fragmentation. Crucially, the disinvestment-investment sequences refer to the coexistence of (mostly Olympic Games-related) infrastructure and redevelopment projects side by side with devalued sites abound in dilapidated building stock – a coexistence that trigger and activate rent gaps facilitating the unfolding of gentrification tendencies (this is schematically illustrated through Figure 7.1 below). Relatedly, Photo 7 shows how small-scale ventures found a chance to settle in otherwise dynamic and contested local markets due to the still apparent signs of disinvestment nearby.

Photo 7: The longstanding disinvestment in parts of Kerameikos has allowed many small businesses to settle in during the recent years.
Source: Fieldwork

The above have not only pinpointed the impact of wider scales upon urbanization and labour trajectories in the capital metropolitan region, but have also exposed the negative externalities of economic crises affecting those processes. However, the effect of recessive pressures does not only pertain to the collapse of the previous status quo, but also carries the transformative capacity that facilitates the emergence of a new one; such a take on the role of recession upon the bivariate objective of the study at hand essentially constitutes a direct response to the Research Question 2. Thus, amid a context of labour casualization and pauperization of the urban population, Athens started receiving 2013 onwards gradually swelling tourist flows[29]. Whereas the city remained for many years just an intermediate stop for tourists before visiting the "sun and sand" Greek islands –Mykonos and Santorini being the most popular destinations–, the city eventually became itself an international destination (STR owner, M, 9/26/19). The ascendance of Athens among urban tourism 'powerhouses' can be attributed to the combined effect of world heritage sites, a mild climate, expertise in

[29] "Miracle in Athens as Greek tourism numbers keep growing", The Guardian, https://www.theguardian.com/business/2016/may/28/greece-tourism-boom-athens-jobs-growth

the hospitality industry, and favorable geopolitical conditions (namely, political tensions in Turkey and North Africa). Even though hotels in Athens multiplied, additional accommodation (through online platforms) was introduced from abroad as a novel practice. The latter quickly consolidated as a market, which expanded in order to accommodate the surplus of visitors that could not be harnessed by 'traditional' hotels. The extraordinary wave of international visitors that has been called "the Athens miracle" is often attributed to the expansion of this very market, as peer-to-peer accommodation platforms revolutionized the way tourism flows were channeled into the urban fabric, offering a wide array of cheap options to potential visitors, and an easy way to find their preferable accommodation (STR owner, M, 9/26/19). As a result of the above, urban tourism became a staple element of the Athenian economy, as has also been observed from many other peripheral economies – the case of Spain and Barcelona is characteristic (Cocola-Gant, 2018).

Such developments should not be perceived as a counterforce to the recessive pressures upon the Athenian urban fabric thoroughly discussed in this section; on the contrary, they constitute an integral aspect of these pressures, and only through the transformative capacity of the latter the local economies of hospitality and recreation were allowed to emerge. For one, the casualization of building trades encouraged the petty construction activity that renovated numerous hotels and apartments intended for tourist use (Union Head, M, 7/10/19). Second, the same reserve labour was utilized for the rehabilitation of buildings of architectural value that were used for recreational uses (cafés, bars, clubs, restaurants) which multiplied and became the "normative Athenian economic base" after 2014. Third, in the case of housing rehabilitation, which spurred as a practice around that time, homeowners were often undertaking a part of the construction works themselves, further assisted by informally hired tradesmen, resembling the cases of sweat-equity gentrification in the US (Sassen, 1997). All the above (also illustrated in Figure 7.1) were deeply facilitated by plummeted real estate values, as small-scale entrepreneurs could afford acquiring property and convert it into peer-to-peer accommodation or a hospitality venture. Overall, this new type of urbanization did not stem from large-scale projects; instead, it was based upon the labour of landowners and/or informally hired tradesmen, resonating with Sassen's (1997) postulations about the participation of small-scale tradesmen and informal assistants in "sweat equity gentrification". The abovementioned reserve army of construction labourers, was (and still is) harnessed by a multitude of small shop owners related to all sorts of construction works: plumbers, electricians, glaziers, tilers, painters, plasterers, etc. Even though these tradesmen found themselves in an extremely precarious position during the first economic shocks, they adapted to a "petty-constructions" reality and those who survived have thrived ever since. Photo 8 shows one of the countless shops (in this case it is a plumber's shop) held by small tradesmen that can be found in Koukaki.

Photo 8: One of the countless shops of small tradesmen. Those who survived the crisis have thrived.
Source: Fieldwork

Besides the workforce in constructions which got through successive rounds of devaluation and by mid-2010s it was *willing* to be hired under adverse conditions, the reorganization of Athens's economic base utilized atypical labour in many other sectors. As demand for labour in food and drink businesses rose, a wide segment of the long-unemployed had no other choice but to flow into services. For such workers, 2012 also was a pivotal year as it was for those in constructions: after the abolishment of the National Sectoral Agreement,

Photo 9: Street poster by a workers union in food and catering calling for a strike in March 2020.
Source: Fieldwork

promulgated among the bouquet of measures comprising the second memorandum, median monthly wages for fulltime labour in hospitality and catering decreased from €800 gross to €550 (union head, M, 8/1/19). Job quality in this sector exacerbated profoundly to the point wages dropped to unsustainable-for-the-worker levels, and contract breaching in terms of unpaid and not previously agreed overtime became a common practice by employers. Even worse, during the next years workers continued seeing their labour rights receding while clientele is generally expanding and profit margins for ventures of this kind have widened. Multiple strikes called by food-and-drink sector-related unions have stressed out the above, as seen in the poster shown in Picture 9. Similarly, staff in hotels was also subjected to the same low-road flexibilization, with the National Sectoral Agreement being ditched in 2012, and median gross monthly wages going immediately from €800 to €650.

Overall, as domestic touristic capital had an already established expertise in utilizing atypical employment relations (in the Greek islands), the hospitality sector in Athens became a laboratory of such arrangements including intermittent work, full-time work for less days per month (up to 22 in most cases), and seasonal labour even in all-seasons hotels. All the above often alternate with 7-day working weeks on full-time, or even overtime, referring to the same worker at different points during a year. Indicatively, the latter constitutes a common practice during the high season months, which, for Athens, last from April until mid-October. Paradoxically, in 5-star hotels workers continued working according to the abolished sectoral agreement, but this constituted a necessity due to the high quality of services in these businesses. On the contrary, most employees in small- and mid-sized hotels suffered worse conditions, often working under a verbal individual agreement with the employer, and with unpaid overtime being often (Gourzis et al., 2020).

More importantly, Attica adopted the characteristics that insular labour markets of Greece has diachronically exhibited: a high level of seasonal variability, and a heavy dependence upon cheap and abundant labour force. Overall, the entrepreneurial climate in Athens shifted towards prioritizing tourism-related services above all other activities 2013 onwards. Such a regional growth engine has strongly influenced under-employment in other sectors as well, but an embedded compromise between employers and employees has been kept in place in order to keep the nodal touristic value chains uninterrupted during the high season.

Nevertheless, workers in hospitality were not the only ones suffering poor job quality. At the same time, similar practices started being implemented upon workers in STEM-oriented professions (the knowledge economy), retail, and households as employers (cleaning, au pair, etc.). Also, workers in artistic activities “went rogue” regarding the official records, as actors, musicians, and other similar professions, ceased being formally hired – or at least their contracts hardly reflected their working conditions (Gourzis et al, 2020). The above labour shifts were thoroughly reflected upon employment figures: following a period of generalized shrinkage of employment numbers (2009-12), the next three years (2013-16) saw hotels, food, and catering becoming the fastest expanding labour market citywide. As rendered clear above, although these sectors absorbed substantial volumes of reserve labour, this was not done in favorable terms for the workers; not only hospitality, but also commerce, constitute sectors that were flexibilized profoundly while expanding (Herod et al, 2020).

It should not go unnoticed that all of the abovementioned activities are at some extent linked with the economic base coming of gentrifying landscapes – hospitality, recreation, arts, quaternary activities. Indeed, such levels of informality became intertwined with emerging urbanization patterns, attributing the transformation of the Athenian urban space a remarkable resilience amid recessive pressures (union head, M, 7/10/19). With staffing construction works and the emerged economic base in gentrifying landscapes being costless, such latent tendencies were reactivated after a hiatus of a few years during 2009-12. Whilst central areas that had exhibited gentrification during the late 1990s and 2000s resumed with their *redevelopment*, resonating with cases of "post-recession gentrification" in the US and elsewhere (Hackworth, 2002), additionally, new loci emerged. The *timid* gentrification unravelling in new areas stemmed mainly from the compound effect of two factors appearing therein. First, the increasing number international visitors, and second, the successive rounds of manufacturing displacement during recent decades. Among the areas that developed gentrification tendencies only after the onset of the crisis was Koukaki, in which the process unraveled in the form of a "hipster boom" during 2014, when numerous bars, restaurants, and small workshops, opened over a period of a few months, often in the place of previously secondary-sector uses (current resident, F, 9/14/19). In general, trajectories of tertiarization and manufacturing displacement played a crucial role in giving an impetus to gentrification tendencies in both older and newer loci, as they provided with additional necessary spaces for *rehabilitation* and reuse.

The character of post-2009 gentrification in Athens moved away from the "systemic gentrification" forms which unraveled during the 2000s, and which had accrued from the housing bubble and the Games-related constructions fever. The latter gave their place to a new type of "marginal gentrification", which was not as vulnerable to recessive pressures; on the contrary, it retained a counter-cyclical character vis-à-vis long swings of the economy, following many similar international cases (see Smith, 2010; Malheiros et al., 2013; Blanco et al., 2020). The main reason for such resilience amid economic crises is that extensive construction works were not required anymore, and moreover, the adaptation of economic activities could occur more rapidly due to the deregulation of labour framework.

In discussing urbanization patterns and labour reformations during the years of deep recession above, it was made clear that economic shocks played a crucial role in shaping the framework of links between gentrification and labour flexibilization/precarization. Besides the obvious explanations which attribute the emergence of both phenomena in the devaluation of urban space and labour respectively (what was called the "weak link" in Chapter 6), it was shown that as a dipole, they were dialectically intertwined with recessive pressures. In this direction, this subchapter pinpointed the mutation of the "systemic gentrification" forms that unraveled in the past two decades (1990s and 2000s) into "marginal gentrification" forms encountered in the first years of 2010s. Most importantly, this chapter revealed how the expanding pool of a "metropolitan reserve army" that was created amid crisis played an active role in gentrification processes in Greece. Therefore, on the one hand, recession transformed labour markets towards a direction that was utilized by newly-adapted economic activities. On the other, recession mutated gentrification tendencies themselves, giving rise to a marginal gentrification that was essentially counter-cyclical – namely, instead of being stalled by economic turbulences, it encompassed them in a feedback loop which eventually accelerated its unravelling across many central Athenian neighborhoods. The above observations are linked to all three Research Questions as posed in the Introductory Chapter, and are thoroughly illustrated in Figure 7.1 (in its left side).

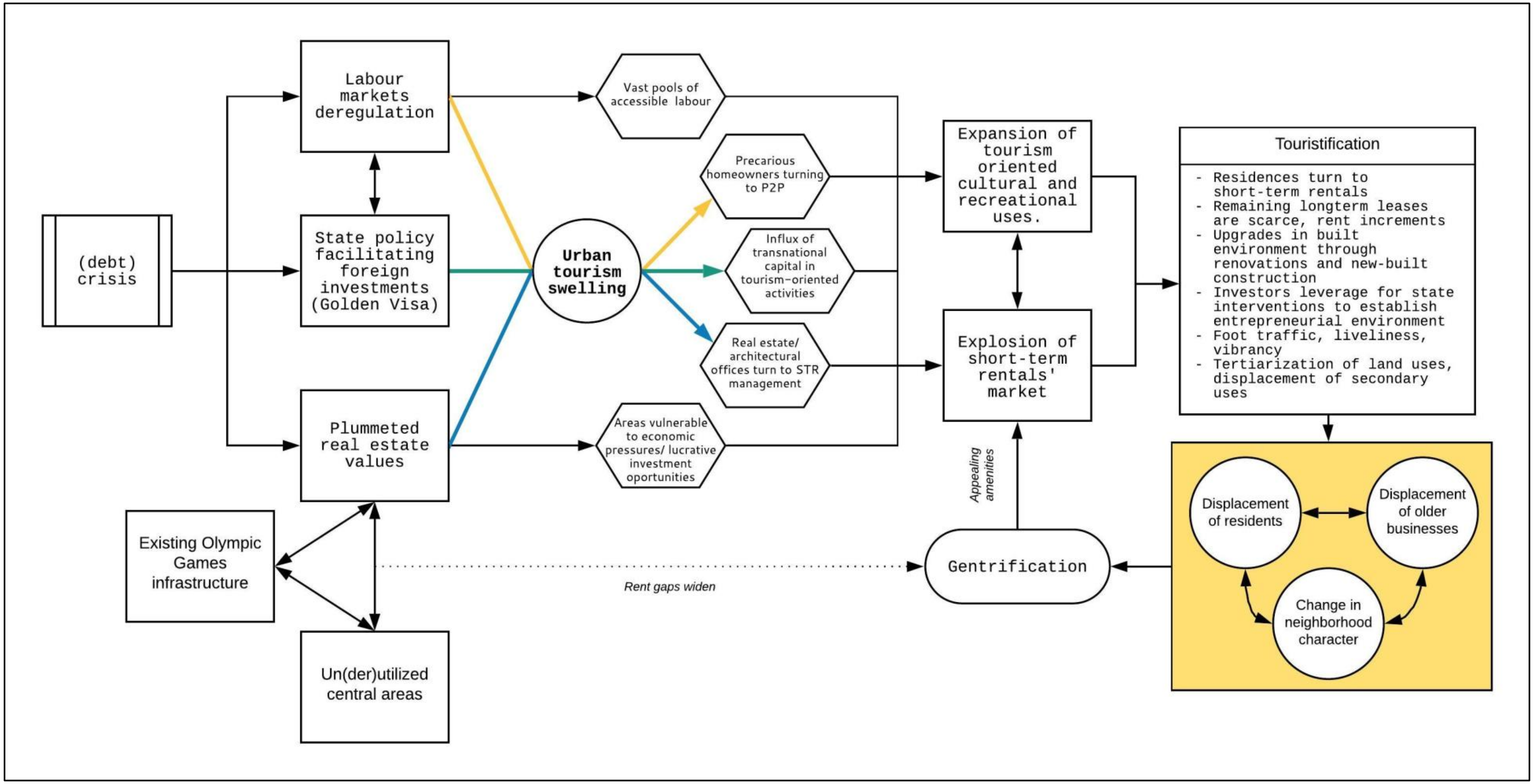

Figure 7.1: The trajectories from economic recession to gentrification in the Athenian context as observed through the empirical analysis

Gentrification and precarity amid rampant touristification in contemporary Athens

What was established in 2013 as a booming urban tourism industry did not take long for taking off, as notable expansion tendencies became apparent in the 2014-15 season, catching the eye of Airbnb. In an article that was uploaded in the platform's official website, one of the most central neighborhoods of Athens, Koukaki (one of the research areas in the study at hand), was praised for its 800% increase in guests[30]. The media attention through advertisements in travel guides was enough to trigger further expansion, but the decisive factor for the subsequent explosion was a 2015 change in peer-to-peer tourist accommodation legislation. The new regulation provided that it was no longer needed for peer-to-peer accommodation through online platforms to carry a license from the Greek National Tourism Organization. This development brought havoc to the market of short-term rentals: whereas in 2015 there were only 2.100 dwellings uploaded in Airbnb, by 2017 the listings' number had already climbed up to 5.100 (Gourzis et al., 2020). This type of tourist accommodation carried a crucial advantage against its immediate competition from the beginning, which helped its immediate expansion: short-term rentals were in a position to make better use of central landmarks than hotels, as the latter are bounded by zoning regulation and cannot settle in already "cramped up" neighborhoods (Segú, 2018).

The expansion of short-term rentals in Athens has not been homogenous neither in spatial nor temporal terms. The first loci of the market consolidated across historical neighborhoods of the central core, particularly, in close vicinity of the Acropolis (Galimov, 2019). Among those was the already discussed above Plaka, which, as a gentrifying landscape, was highly appealing to foreign visitors and investors for its aesthetics and (ostensible) 'authenticity'; the high appeal of gentrified landscapes has been pinpointed in other contexts as well, as for example in Barcelona (Sans and Quaglieri, 2016; Cocola-Gant & Lopez-Gay, 2020). Koukaki was also among the areas exhibiting the first clusters, benefited by its close vicinity to the New Acropolis Museum (opened in 2009, located at the northern part of the neighborhood), its newly emerged recreational base, and from the fact that most upper-floor apartments in the area have a direct view on the Acropolis.

Photo 10: Gated building in Kerameikos, used as a short-term rental apartments' complex.
Source: Fieldwork

Subsequently, the market expanded outwards following a multifactorial pattern which qualified easy access, as well as vicinity to nodal transit hubs, important historical landmarks (besides the Acropolis), commercial hubs, and vibrant recreational spots. Among the areas affected during this expansion phase was Kerameikos, being revered for its gentrification-related amenities: highly-aesthetic architecture, vibrant street art, and most importantly, its walking distance from the queer-friendly clubbing scene of Gazi (see Photos 11, 12, and 13). Especially the latter has attributed the area a remarkable popularity among young visitors from abroad, with the area boasting some of the priciest listings in Athens's market (Gourzis et al., 2020). Even certain parts of the Gazi and Kerameikos area, which, in adjoining with devalued building blocks, spread "feelings of insecurity" among visitors, were incorporated in the short-term rentals market's expansion by building small-scale gated complexes, as shown in Photo 10.

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[30] "Be the First to Uncover the Next Local Gem: Visit the Top 16 Trending Neighborhoods on Airbnb in 2016", Airbnb Official Website, https://news.airbnb.com/be-the-first-to-uncover-the-next-local-gem-visit-the-top-16-trending-neighborhoods-on-airbnb-in-2016/

Overall, the sequence of phases has followed a trajectory of ‘flaring’ – namely, a gradual outspread once previous-stage loci showed signs of saturation. Thus, the cramming of listings in central districts has, in recent years, directed expansion tendencies towards hitherto underexploited, devalued areas. The market’s rapid expansion into ‘uncharted’ territories promising wide profit margins, even if they do not look safe enough for tourists, signify a substantial shift from a casual activity to an entrepreneurial terrain of high stakes.

Photos 11, 12, 13: Street art (up), alternative club (bottom left), and neoclassical architecture in Kerameikos (bottom right).
Source: Fieldwork

Initially, Airbnb and other P2P accommodation platforms fell under the category of the “sharing economy”, giving the opportunity to small homeowners to become micro-entrepreneurs and earn an additional income off of their dwelling. These small landlords picked the choice of converting their property into a short-term rental over keeping it in the long-term rental circuit due to the wide rent gap between long- and short-term contracts. Additionally, many justified their choice by stressing out the risks linked to long-term tenancy – for instance, bills and rents being left unpaid by the tenant. However, by 2016 larger-scale investors made their appearance in the market, attracted by Athens’s dynamism as an international tourist destination. More importantly, for foreign investors, Golden Visa (a residence-by-investment program) in Greece has been less costly than in other similar countries; indicatively, it costs 250.000 Euros while in Portugal more than 350-400.000)[31]. Moreover, Greek real estate remains particularly cheap due to a ten-years-long crisis; indicatively, the rate of return (RoR) in Athens is 20 years whereas in London it is 34 (Galimov, 2019). As a result, substantial parts of a circulating transnational capital have chosen Athens’s real estate as an outlet for investment.

[31] “Golden Visa: The upcoming changes”, To Vima newspaper, https://www.tovima.gr/2019/11/11/finance/ xrysi-viza-poies-allages-proothountai/, (in Greek)

Nationwide, the worth of investments since the first introduction of the program until early 2020 was almost 3 billion euros, with more than 80% of this sum being invested in the region of Attica. Even though foreign investors established a notable presence in 2015-16, the breakthrough year in terms of their numbers and volume of investments was 2018. Within a year, investment volumes doubled (from 700 million of yearly investments in 2018 to more than 1.3 billion in 2019). Until 2019, of the 6.000 successful Golden Visa applications by foreign investors (19.000 including their family members), more than 60% referred to Chinese citizens; Turkey and Russia follow in this list, while applicants from the Middle East comprise a notable share[32]. This influx of big players rendered the position of smaller ones extremely vulnerable, and only those older casual hosts that had foreseen the explosion of the market turning pro have managed to stay afloat; nowadays, a portfolio of just one or two apartments is –in most cases– hardly profitable (STR owner, M, 9/26/19).

Photos 14, 15: Renovation works in a building in the Psirri neighborhood (left). A debris bucket outside a neoclassical building in Kerameikos, signifying renovation works (right).
Source: Fieldwork

As thoroughly described in the previous section, the activity of large-scale investors and micro-scale entrepreneurs has been crucially facilitated by the casualization of the workforce in constructions. Works needed are being carried out swiftly and at low cost, and as a result, a large part of the inner-city's aged building stock has been renovated. Indicatively, Photo 14 shows a group of tradesmen renovating such a building that will probably be used as a short-term rental. The same construction practices have been applied in the preparation of hotels, which mushroomed in the capital in recent years – accounts claim that labour there is not officially declared in over 90% of occasions (STR owner, M, 26/9/19). It is indicative that, even for those kinds of larger projects, new-built construction is avoided, without the lack of suitable and available sites being the primary reason. As building erection is generally deemed unprofitable, most hotels appropriate the city's existing building stock: abandoned old hotels, or even whole apartment buildings which are bought for that reason, resulting in the eviction of all remaining tenants (union head, M, 10/7/19). In only a few cases buildings are being erected from scratch; these are financed by transnational investors and appear as apartment buildings, whilst in reality they constitute "ghost hotels" (STR owner, M, 9/26/19).

[32] Bakas, T.A., "The Golden visa leads (regional) development in 2020", NewMoney Online financial magazine, https://www.newmoney.gr/roh/palmos-oikonomias/oikonomia/i-golden-visa-arogos-anaptixis-ke-tis-periferias-to-2020/, (in Greek)

The numerous architectural upgrades are indicated by debris buckets one can see around almost every corner (see Photo 15); added to these carried out for hotels and short-term rentals are those for preparing food and drink-related ventures. Very often, entrepreneurs and investors engage with the surrounding public spaces as well, reshaping them through beautifying interventions – that is the case with many central streets in Koukaki. Ultimately, this renovating and construction activity of households, tourism-oriented entrepreneurs, and foreign investors, has avalanched into a critical mass of actual private-led urban redevelopment which has reshaped numerous neighborhoods at the central core of Athens. In a sense, such transformative processes constitute the continuation of “marginal gentrification” tendencies identified unravelling a few years before.

Photos 16, 17, 18, 19: Examples of ventures in the two Research Areas. Workshop and gallery (upper left), neokafeneio (upper right), bakery with breakfast (bottom left), organic grocery store (bottom right).
Source: Fieldwork

Attracted by the enhanced pedestrian traffic in such transitioning areas, a growing number of businesses have been settling in seeking to cater not only tourists, but also the Athenians who visit to enjoy the vibrancy and diversity of choices in recreation. The most characteristic ventures comprising the economic base therein include greengrocers with fresh produce (as in Photo 19), cafés and bakeries with breakfast (as in Photo 18), sophisticated bars and restaurants, Greek-style neokafeneia which simultaneously seek to appear as *authentic* and *modern* (as in Photo 17), small showrooms selling their art (as in Photo 16), and last, services specifically addressing tourists’ needs, such as luggage storage places and laundromats (Gourzis et al., 2020).

Whilst on the one hand the recovery of real estate values, which, after years of retreat started increasing once again in 2017, is attributed to the booming activity of short-term rentals, on the other, the extensive conversion of apartments into tourist dwellings has drastically reduced the available stock for long-term renting. This, in conjunction with the ‘upgrading’ of these central neighborhoods through renovating and beautification works, has driven an uncontrollable inflation in long-term rents’ levels. It is indicative that the median rent for a 60 m^2 apartment in Koukaki in 2014 was around 240 Euros, and within four years, it nearly doubled (€400 in 2018; Re/MAX, 2019). Skyrocketing rents in touristified areas have affected neighboring areas as well, turning housing in Athens generally less affordable (Gourzis et al., 2019b). Long-term residents in areas with the highest STR densities are affected profoundly, and many of them are forced out of their neighborhoods. Even those that avoiding displacement, have learned to live under the constant fear that their landlord will eventually evict them. Similarly, many of the old businesses in those neighborhoods face issues of survival due to increasing commercial rents and operating costs, being additionally hit by zoning regulations, and the subversion of their neighborhood’s character resulting in the loss of their longstanding clientele. Characteristic types of ventures which face increased displacement pressures are older-style cafés such as this shown in Photo 20, and car repair shops, as in Photo 21. Specifically in Koukaki, the number of such types of businesses have been abruptly decreasing in recent years, especially 2015 onwards.

Photos 20, 21: Old uses in Koukaki and Kerameikos. Old cafés (left) struggle as they lose clientele whilst not being able to cater to tourists’ tastes. Car repair shops (right) suffer a hostile environment after rezoning.
Source: Fieldwork

Amid this environment of tightening real estate markets, pressures do not solely concern renters and entrepreneurial ventures. Many homeowners face such pressures as well, through a regenerating process of ‘self-exploitation’. The latter term constitutes a *loan* from Harvey (2017) who used it to describe the precarious position faced by many self-employed workers in the digital labour and microfinance within a context of flexible specialization and accumulation in the Post-Fordist era; those, Harvey postulates, pursued prosperity through freelancing but eventually fell into a “neoliberal trap”. Similarly, within the context of the study at hand, it has been observed that touristification has driven segments of the middle classes to enter a vicious cycle of self-exploitation by converting their property into short-term rentals. These segments mostly refer to micro-owners in distress, who have suffered profoundly from heavy property taxation implemented through the Economic Adjustment Programmes. At the same time, many of them have lost their jobs, or at least significant parts of their salaries due to recession. In this sense, exploiting their (often otherwise idle) properties, or seeking better usages for their property has been rather unavoidable – a logical response to emerging opportunities. Especially those owning property in close vicinity of gentrified vibrant spots, realized it could be converted into a highly popular listing in online platforms, thus providing a substantial income. However, as observed in both Research Areas, most of those casual, small-scale hosts were soon outcompeted by international players who poured in the market after 2015-16. Eventually, small-scale hosts either assign the management of their property to a company (which keeps 15-30% of turnover – a rather large share is the percentage refers to not just the profits but the overall income), or worse, are forced into selling unable to

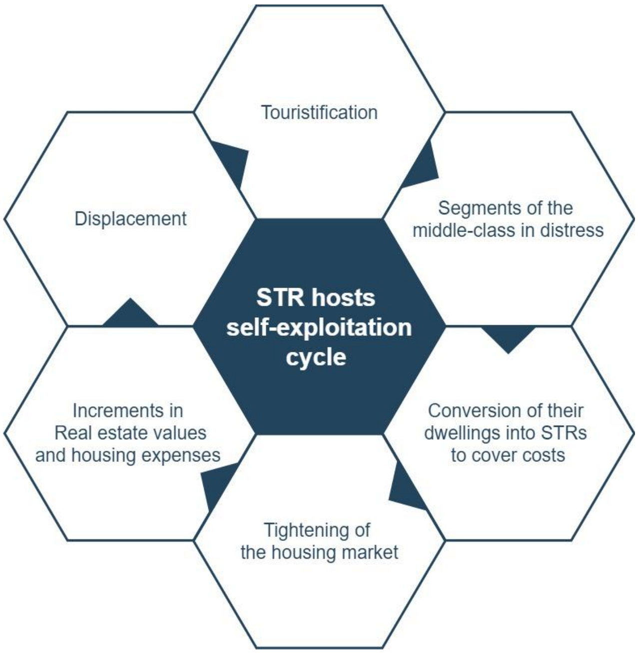

Figure 7.2: STR hosts' self-exploitation vicious cycle as observed through the empirical research

cope with property tax burdens and competition. Figure 7.2 schematically depicts this cycle of self-exploitation, which is even more apparent in the case of tenants (and not homeowners) choosing to profit off of their rented dwellings by converting parts of those or as a whole into short-term rentals. For instance, the marginal gentrifiers in Kerameikos or students in Koukaki who sublet their apartments, initially found a 'remedy' for skyrocketing rents; however, their practices were regenerating the very pressures they were receiving, resulting in their own displacement.

All the above lay out the simultaneous displacement pressures which are exerted upon homeowners, renters, and business owners – even though each of these groups is affected at varying degrees. Overall, however, this "demographic and economic assortment" accelerates touristification and gentrification across most central districts of Athens, as it paves the way for new rounds of socio-spatial reorganization. For instance, the eviction of previous tenants leads to new listings in online platforms, or the displacement of older businesses leaves spaces vacant for new types of ventures to settle in. As a result, urban space has been transforming at an accelerating rate across more and more neighborhoods, covering most of Athens's historic center and gradually expanding outwards. Besides Koukaki and Kerameikos, accounts identify such tendencies in the Commercial Triangle, Pagkrati, Exarcheia, or even in long devalued neighborhoods such as Kipseli.

Another aspect of the abovementioned pressures is the reinforcement of labour precarity. As the settlement of businesses in busy (hence profitable) touristified districts is very difficult, most of them are conspicuously relying upon deregulated labour in order to survive (union head, F, 7/19/19). Moreover, as the competition among similar services is fierce, many of those are particularly short-lived; indicatively, a big number of businesses in touristified areas closes down within the first 2-3 years of operation. This rapid recycling has been found to further the worsening of labour conditions, as many employers approaching foreclosure resort to informal labour practices. It goes without saying that flexible and precarious labour is also utilized by businesses which are not in "survival mode", nor are crucially affected by high rents, such as big supermarket chains. This reflects the changing priorities in the appropriation of flexible working arrangements discussed above (as one of the mechanisms operating on wider scales), as these employers simply take advantage of statutory labour conditions. Similarly, within the circuit of short-term rentals, the use of casual and extremely flexibilized labour is common regardless of performance of each venture which resorts to such arrangements. In this circuit, the hosts themselves and people of their immediate environment (close friends, family) often get overworked undertaking an array of responsibilities; moreover, employees who take care of check-ins and check-outs usually refer to cases of no-contract work who are expected to be stand by around the clock (owner of STR management company, F, 9/26/19).

Last, the practice of labour outsourcing constitutes an additional source of labour precarity, rapidly expanding across the whole city, but disproportionately present within heavily touristified and gentrified areas. Subcontractors have rushed into such areas to cover the needs of specific businesses such as short-term rentals and hotels regarding cleaning and transportation. Additionally, subcontracted labour is heavily utilized in super-markets, covering cleaning duties and needs in their warehouses. Overall, workers coming from contractors generally suffer an extreme precarity as they are transferred in business across the whole Metropolitan Area of Athens, being forced to cover long distances in order to reach their work. Additionally, subcontracted labourers have repeatedly denounced informalities such as unpaid overtime and salaries, or unregulated schedules (union head, 7/19/19). Paradoxically, in many occasions, they do not even know who their employer is in order to express their demands (union head, F, 9/25/19).

Photo 22: An "urban type" branch of a supermarket chain in the heavily touristified area of Koukaki.
Source: Fieldwork

The case of supermarket labour is a distinct case, and it has to be noted that it has been intensifying across all Greek regions in general. As has been highlighted through the research conducted for Chapter 6, full-time employment has essentially been abandoned, and turned into part-time which is paid with wages below the poverty line. However, in touristified and gentrified areas, due to their heavier pedestrian traffic flows, labour tends to get even more precarious, more so in specialized types of branches such as 24/7 operation, deli-type, etc. (supermarket worker, M, 11/11/19). Koukaki abounds in those "urban types" of supermarkets, and Photo 22 was taken in its northern, particularly touristified part (the Makrygianni area). Interestingly, the branch of the photo combines many elements which have been discussed throughout this chapter, such as compact size allowing for it to settle in a highly congested area, and the building used, which constitutes an older structure of neoclassical architecture.

Despite the conditions of labour collapse described above, these 'radical' employment arrangements have nevertheless contributed to an increased entrepreneurial activity amid the Athenian terrains of gentrification and touristification, as they have *secured* the engagement of transnational capital. Both elements (labour collapse and increased engagement of transnational capital) are closely associated to the 'idiosyncratic' type of gentrification unravelling across contemporary Athens. Essentially, the process emerges out of, on one hand, widening rent gaps caused by the plummeted –due to recession– land values which have created a mosaic of underutilized downtown areas, and a generalized fall in rent capacity on behalf of tenants, and on the other, a rapidly expanding short-term rentals market which boosts potential gains for landlords, and a readily available "metropolitan reserve army" of labourers which has little choice over job opportunities and conditions of work. The above are schematically illustrated in Figure 7.1 (its right part).

Relatedly to the recursive relationship between gentrification and labour precarity/flexibilization (Research Question 1), union representatives have expressed their belief that had it not been for these conditions, many of the existing businesses would not be operating (Union Head, M, 8/1/19). Especially businesses of smaller size opening in contested areas, most often resort to such cheap and intensified labour, where 12-hour shifts is the norm (Union Head, M, 22/7/19). However, these claims do not only refer to businesses that would not survive, but also extend to those that would be profitable either way (union head, F, 7/19/19) – the "changing priorities" discussed above. Ultimately, when economic activity and renovations amassed in central Athenian neighborhoods forming local economies of concentration, they attracted more similar activities and culminated the deregulation of working conditions in those localities. The whole inner-city then turned into a site of recreation that is fundamentally based upon atypical and precarious employment (union head, F, 7/19/19). In this nexus, deregulated labour and precarity do not only support gentrification, but also are fostered by it (see gentrification-supporting and gentrification-fostered precarity in Chapters 2 and 6). Athens's world of work has been pointing out to this nexus in multiple occasions, as shown in the poster of Photo 23. Therein, it is first observed that touristification and gentrification sprawl outside their initial central cores –the areas around Plaka and Psirri–, affecting the lives of workers living and/or working across the surrounding areas. The instances of deregulated labour highlighted –24h super-markets, evicted tenants, waitresses with irregular schedules, delivery boys working well after midnight, uninsured cleaners, and 24/7 schedule employees in STRs waiting by their smartphones– constitute all characteristic cases of synergies between gentrification and flexibilization, and this connection should not be perceived as an opportunistic conjuncture, but an integral aspect of the Athens's growth model.

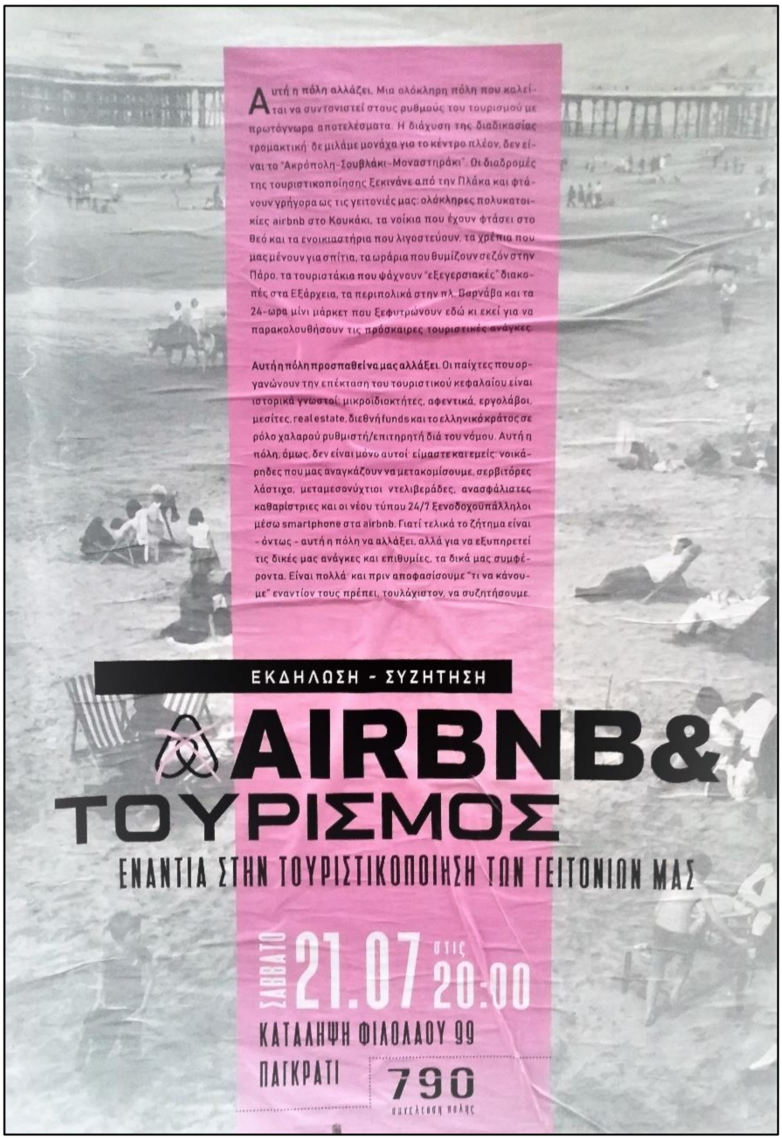

Photo 23: Street poster on touristification and labour – 24h super-markets, evicted tenants, waitresses with irregular schedules, delivery boys working well after midnight, uninsured cleaners, and 24/7 schedule employees in STRs waiting by their smartphones.

Source: Fieldwork

Besides the cases highlighted in Photo 23 above, the research at hand has unveiled and taxonomized a much wider spectrum of links between gentrification and labour precarity/flexibilization. Equally important, it has identified the distinct characteristics of labour precarization within gentrifying landscapes, avoiding to conflate weak with strong links between the two phenomena. This task has been a “slippery ground”, as the labour force across the whole city, and even nationwide, has been profoundly devalued after the collapse of labour markets under recessive pressures, and the implementation of the Economic Adjustment Programmes 2010 onwards.

Specific instances of the abovementioned links are shown in Figure 7.3, as well as the underlying mechanisms bringing those about. Summarily, research has highlighted the role of the casualized labour in constructions and the indirect impact of manufacturing displacement upon the provision (or lack thereof) of steady employment as important aspects of a precarity that encourages and facilitates gentrification processes (gentrification-supporting precarity). Research has also highlighted the highly deregulated labour conditions in short-term rentals (which play a role in the exacerbation of working conditions in hotels), food and drink businesses, and supermarkets, as significant aspects of a precarity that is nurtured by gentrification and *culminates* within gentrified areas (gentrification-fostered precarity).

Within each Research Area, fieldwork shed light upon specific instances where the abovementioned types of gentrification-related precarity manifest. In both areas, the short-term rentals market was found to spur touristification and profoundly flexibilizing their labour markets. Despite the increased opportunities for jobs this market offers, it was common that the interviewed workers to state they perceive short-term rentals as a threat, both to their working and their living conditions – a factor intensifying work, as they described STR’s, but without raising wages. Another type of precarity found in both was in renovation/petty construction activities, even though in Koukaki the sheer number of small tradesmen’ shops makes this type of precarity more evident. Similarly, albeit supermarket chains intensify labour to harness heavy traffic across all touristified areas, Koukaki specifically abounds in the abovementioned “urban types” of branches (24/7 operation, deli-like, etc.). In Koukaki’s busiest parts, food and drink businesses lower labour costs to withstand a fierce competition: short-lived ventures tend to resort to intensified labour more, and contract breaching is common. In Kerameikos on the other hand, workers in retail and recreation do not suffer contract breaching so often; however, flexible labour is again the norm, and is explicitly used by businesses to cope with unstable demand and hiking commercial rents. Workers in food and drink businesses see labour conditions worsening during the last years, despite the development of the area. High-class restaurants are a characteristic example, as the rely upon immigrant labour for menial tasks, but also utilize unpaid traineeships for aspiring chefs (Union Head, M, 1/8/19). Last, the vibrant arts scene of the area, a crucial element of Kerameikos’s character, appears as a minefield of completely casualized labour; many of the artists found during fieldwork are marginal gentrifiers of the area working a second job in nearby bars/cafés/restaurants. An interesting finding, to close, is that recreational activities are staffed by the marginalized groups of each area: besides immigrant labour which is extensively used for many kitchen- and warehouse-related tasks in both areas, the typical worker of Koukaki is a student, often female, working to support his/her studies, whilst in Kerameikos, the typical worker constitutes a marginal gentrifier, often working to support his/her artistic activity.

Type of relationship between gentrification and precarity	Gentrification-supporting precarity: *Types of employment relationships facilitating gentrification processes*		Gentrification-fostered precarity: *New types of employment relationships spurred amid gentrifying environments*		
Field/ Sector	**Building Trades**	**Traditional forms of urban manufacturing**	**Short-term rentals and Hotels**	**Food/drink and micro-artisanship**	**Supermarket industry**
Factors driving labour precarization	Developers seek to minimize exposure to risk, and expand profit margins, by limiting (a) the amount of capital sunk into a project, and (b) turnover time	Manufacturing businesses previously provided a flow of steady, full-time employment. Now, expulsion through rezoning, and displacement through ground rent inflation	STRs functioning under a semi-legal framework Competion with hoteling industry worsens conditions in the latter	Hyper-tertiarization, fierce competition, heavy dependence on urban tourism, labour intensification due to heavy pedestrian traffic	Labour intensification due to heavy tourists' traffic
Working arrangements/ conditions	(a) - Downsizing of projects and building crews - Outsourcing of tasks and use of subcontracting - Deskilling labour - Utilization of flexible labour (b) - Utilization of labour-replacing technologies - Intensification of labour	Blue-collar workers in cities suffer: - A reserve labour force pushed to re-enter the labour market under adverse conditions	Workers in STRs: - Irregular schedules, 24/7 standby for receiving guests - Often absence of employment contract Workers in hotels: - Do not benefit from surging visitors' numbers - Extensive subcontracting with poor labour conditions (cleaning, kitchen tasks)	Workforce in cafes, bars, restaurants: - Intensified labour and often contract breaching Workforce in supermarkets: - Minimum wage - Part time labour often below poverty line - Poor conditions for contractors' employees (warehouses, cleaning)	"Core" workers (cashiers): - Minimum wage - Part time labour often below poverty line "Peripheral" subcontracted labour (warehouses, cleaning): - Poor conditions, below minimum wages - Extensive recycling of workers - Often change of workplaces for workers
Characteristic instances in Research Areas	Extensive renovations in both areas: - Construction works rarely officially declared; tradesmen hire temporary assistants mostly informally; large percentage of works undeclared (Union Head, M, 7/10/19) - 90% of construction works are informal (STR owner and manager, M, 26/9/19)	Rezoning ousting urban manufacturing prior to gentrification in Kerameikos. Gentrification, facilitated by older zoning regulation, displacing garages, warehouses,and small-scale urban manufacturing in Koukaki.	Particularly active presence of contractors in cleaning and transportation services in Koukaki Hotel near Koukaki subcontracting most work to company owned by the same hotel owner (Union Head, M, 1/8/19)	Cafes, bars, and restaurants lower labour costs through the use of: - Students in Koukaki - Marginal gentrifiers in Kerameikos - Contract breaching (unregulated and unpaid overtime) Fast food chains - Extended hours (often 12 hour shifts) In bakeries offering breakfast - Intensified labour as employees undertake multiple tasks Musicians working in clubs and bars: - Without regular wages and contracts - Often paid by attendance	Multiple "urban-type" branches of supermarkets in Koukaki - 24-hour operation, often 12-hour shifts - Intensified labour due to heavy traffic

Figure 7.3: The strong links of the recursive relationship between gentrification and labour precarization, with instances of such links in Research Areas

Towards a labour-sensitive theorization of gentrification in the context of South EU

The previous parts of the Integrative Chapter have synthesized the research's findings in formulating a comprehensive narrative. All three Research Questions posed in the Introduction Chapter have been addressed: the narrative has described in detail the threads connecting the restructuring of urban space and labour markets in Athens (Research Question 1), has thoroughly explored the impact of the enduring economic crisis upon them, going beyond the evident negative impact of recessive pressures (Research Question 2), and has cautiously examined the influence of larger scales and domestic trajectories upon the urban and intra-urban level (Research Question 3). Conjunctionally, this narrative articulates an argument postulating that gentrification and labour precarity form a reciprocal and dialectic relationship that unravels across multiple scales. This part here, will move beyond the empirical perspective of the ones above which focused upon a particular geographical context. Departing from some key findings regarding Athens, it will attempt to widen the scope and theorize some of the research's central conclusions, pursuing an ontological breakthrough towards a theory that perceives work as a central mechanism in gentrification processes. This is not only a call for an enrichment of existing theorizations, but also a step towards a novel approach which might be drawing upon the *disrupted* tradition of early contributions to the literature that juxtaposed the evolution of labour and housing markets (Smith, 1979; Rose, 1984; Marcuse, 1989; Zukin, 1995; Sassen, 1997), but proceeds with the analysis of urban gentrification and labour flexibilization/precarization in a unified and systematic way. By enriching the dimension of labour within Gentrification Research, which has remained understudied, this Thesis aspires to contribute to a new paradigm which will transcend its narrow scientific field.

The research within the frame of this Dissertation has exposed a complex restructuring process that has been transpiring across many central districts of Athens during the recent years, mainly in the form of a rampant touristification. Such a simplistic description, however, obscures the multilayered character of these transformative processes, which retain a multitude of aspects. On the one hand, these transformations primarily pertain to the expansion of the short-term rentals market at the expense of long-term leases and owner-occupancy rates; such succession takes place crucially contributed by a circulating transnational capital which chooses Athens's real estate as a suitable outlet for investment. At the same time, urban activities exhibit a hyper-tertiarization which specifically focuses on tourism-related recreation, complemented by sophisticated artisan-related ventures. The concurrent conversion of residential uses to short-term rentals, and the subversion of the economic base, signify a shift of the Athenian urban space towards its "highest and best" function in terms of income generation. Additionally, inflowing private capital unto the built environment seeks ways to *upgrade* it, often engaging with interventions in public spaces as well – in principle, intending to shape a suitable entrepreneurial environment and protect its investments. At a deeper level now, the above have fueled an uncontrollable inflation of real estate values, leading to the displacement of residents. Businesses receive such pressures as well – especially those which cannot cater to new types of clientele. The subversion of the affected areas' economic base has been in many cases very swift, ruffling inner-city labour markets profoundly. The role of the state and local governments has been discreet, albeit not secondary, as it has proceeded with decisive interventions encouraging urban redevelopment, in order to secure ripe fields for novel spatial fixities pertaining to hyper-tertiarization. For instance, articles in regulatory (master) plans have provided the expulsion of uses perceived as causing nuisance from specific areas of the city center: warehouses, garages, urban manufacturing (of all sizes) were among the most common to be unwanted. Manufacturing in particular has been regarded as obsolete, especially before the ascendance of micro-artisanship (e.g. wood, ceramics, metal workshops) amidst the *normative* economic base of gentrified landscapes – observed in many cases worldwide. Such zoning restrictions have been pivotal in the shaping of all central areas across

Athens: the research has unveiled such examples in Koukaki and Kerameikos, but the same applies for other areas as well, including Plaka, Psirri, and Exarcheia (Alexandri, 2018). State-led interventions seeking to enhance of the city's symbolic capital go hand-in-hand with the above. Such projects secure the preservation of historical architecture in selected areas and provide for prominent cultural amenities. The redevelopment of the historic neighborhood of Plaka, the establishment of the New Acropolis Museum in Koukaki, and the opening of the Municipal Gallery in Kerameikos, have been characteristic examples to this.

All the above outline an idiosyncratic Athenian gentrification affecting numerous areas of the historic center of the city. As many of these districts had not experienced any sort of recreational or tourism-oriented gentrification in the past decades, such restructuring has fueled a profound subversion of their social and spatial character. In this sense, touristification has become the new form of gentrification in the city of Athens, as it essentially resumes the distinct forms of urban redevelopment transpiring in Athens during the last three decades. Such forms mainly concern the state-led reshaping of historic neighborhoods during the early 1990s, the Olympic Games-related rezoning and redevelopment during the late-1990s and in the following decade, and the marginal gentrification timidly unravelling in many –already established– loci in 2013-14, after a short hiatus due to the potent recessive shocks of 2009-12. Resonant with the echoing effect of these previous phases, contemporary Athenian urban restructuring reproduces all four identified conditions which indicate processes of gentrification (Gourzis et al., 2019a; Gourzis et al., 2020). Namely, specific parts of the Athenian central core experience a simultaneous transition of land uses to their "highest and best" function, transformation of their physical environment through significant capital investment –either public or private–, displacement of their extant population base, and abrupt shift in their longstanding social-spatial character. Interestingly, the processes unravelling in the Athenian landscape closely resonate with contemporary theorizations on the latest wave of gentrification: these, stress out the centrality of transnational capital and the profound impact of platform capitalism (Aalbers, 2019; Wyly, 2019).

Still, despite Athens's restructuring resembling cases identified within the Anglo-Saxon context, its gentrification and touristification retain their distinctively Mediterranean-European character. For one, the emergence of urban tourism as a central aspect of the city's economic base constitutes a crucial aspect of mainly peripheral economies (Cocola-Gant, 2018). In the context of South EU, hyper-tertiarization does not derive from longstanding processes of deindustrialization, but comes as a response to the diachronic absence of heavy industry in the first place. Hence, this disproportionate shift to tourism-oriented services can be seen as a continuation of the constructions-dependent growth models – but in the aftermath of the secondary circuit's failure to rationalize the outdated productive structures and spatial fixes, producing instead a series of real estate bubbles (Gourzis and Gialis, 2019). This post-recession gentrification is profoundly facilitated by the deregulated labour framework characterizing all PIGS[33] after 2009. It is rather ironic that, at the same time, it is promoted as a functional spatial solution to the fragmented succession of work sites. In an instance where history repeats itself, gentrification appears as a necessary process in rationalizing urban space through material and functional modifications, becoming the latest spatial fix called upon to tackle productive deficiencies (see Gourzis and Gialis, 2019). An eloquent example of this is the recently devised "Trigono Project" by the Municipality of Athens; in seeking to rationalize the inner-city's economic

[33] Acronym used in the mainstream discourse, referring, often derogatorily, to the economies of the Southern European countries of Portugal, Italy, Greece, and Spain.

activity, the Municipality of Athens has formed synergies with private capital and has devised a holistic plan which pushes the further revitalization of a large part of the Commercial Triangle district –an already heavily touristified area–, in order to enhance its entrepreneurial climate (City of Athens, 2019, p. 177). Despite such attempts, gentrification forms a reciprocal relationship with precarious labour instead. On the one hand, the recession-stemming casualization of wide segments of the workforce spurs gentrification swiftly and at low cost, and on the other, labour precarity consolidates as endemic to gentrified areas, as the emerging economic base strives to reap their positive externalities as effectively as possible. In this feedback loop, the two phenomena reinforce each other, with gentrifying landscapes becoming "local economies of concentration" in the sense they attract more similar activities, with such concentrations however culminating the exacerbation of working conditions. Figure 7.3 above describes the abovementioned recursive relationship between gentrification and labour precarity in great detail.

More so, in the absence of strong regulatory foundations and stable socio-economic structures, touristification has driven an uncontrollable inflation of the short-term rentals market, which in turn has fueled an inner-city "desertification" (Gourzis et al., 2020). This unrestrained touristification should not be seen separately from the EU South's unregulated growth patterns throughout the decades that followed WWII. With the above it is not implied that crises of affordable housing constitute a *south-specific* problem; on the contrary, multiple conurbations across the North EU and the Anglophone world are being called to tackle such issues. For example, US cities like Boston, San Francisco, and New York, or European ones like London and Dublin also face an explosion of their STR markets (Gourzis et al., 2019b). However, as central districts in Mediterranean European cities have traditionally been residential areas, the recent gentrification/ touristification trajectories have structured a distinct and unprecedented spatial dynamic along exclusionary lines (Gourzis et al., 2020). The outcome is the city center becoming a "vast tourist resort", losing its long-established character and becoming estranged towards its own population. Several organizations and workers' unions have warned of such devastating effects for Athens (Union Head, F, 19/7/19), with the example of Venice looming over the rest of Mediterranean European cities (Bertocchi and Visentin, 2019).

Urbanization contradictions arising as a result have triggered strong political responses. For instance, in Barcelona, housing has become the key issue in several local elections (Blanco et al., 2020). However, strong workers unions in the building and other trades have not engaged in *negotiating* the unravelling forms of gentrification, by using the potential rent as a leverage against developers and the state. In other contexts, such as Canada's, unions are taking advantage of the central role of timing in gentrification and touristification processes, stalling them until their demands are met; for example, their members to be employed in the construction works needed, or the workforce in such projects to be compensated with specific wages (MacDonald, 2014). The concept of "negotiated gentrification" is of highly importance, as it enriches the view of demand-side approaches to the process, the ways the world of work can benefit from gentrification, and the threat of segments of the workforce turning against each other, representing conflicting interests. As unions, however, keep a limited role in shaping gentrification in the context of South EU, residents' organization follow the opposite course, rendering inner-city *revitalization* a central political issue; indicatively, urban restructuring in Athens is debated along a discourse of fear (Alexandri, 2015), and promoted as a solution against ghettoization, a process more or less *absent* from the Greek capital (Maloutas, 2013).

Photo 24: Wages are falling because rents are rising (street poster, Kerameikos, 2019)
Source: Fieldwork

Nevertheless, the issues of gentrification and touristification are gradually perceived by the working people of the EU South not only as factors in housing markets' compression, but also as processes impacting heavily upon labour conditions. This has recently been marked clear especially to those in hospitality and catering, who saw their schedules getting longer without necessarily their wages improving, and always within a highly deregulated framework. In addition to the direct influence of urban restructuring upon the economic base, workers are also conscious of the indirect control touristification exerts upon their working conditions and job options, as it rapidly displaces them from the environs they have been living for a long time. In the street poster shown in Photo 24 the link between rents and wages is eloquently scrutinized: "wages fall because rents rise". The research conducted in the context of this Dissertation has revealed that displaced residents face increased difficulty to maintain their jobs as they suddenly see their commuting time increasing. Moreover, in many cases, employers prefer workers who live nearby, resulting in displaced workers getting fired and having limited opportunities to land another job at central areas where most of the ads are for. Even for those workers managing to maintain their job, displacement profoundly fuels their precarity as expenses pertaining to transportation, or even food –as they are forced to eat from outside more often in lack of available time– increase substantially (supermarket worker, M, 10/11/19).

Last, the advanced "stages of touristification" that can be observed mainly in the large Portuguese, Spanish, and Italian conurbations, point to the future of cities like Athens. The effect of a "transnational gentrification" and touristification shapes "foreigners-only" enclaves where local population is being gradually replaced by migrants and tourists coming from developed countries. These migrants, usually a high-skilled workforce, choose to live in cities of the South EU for lifestyle reasons rather than better options for work; however, the development of baseless and remote working constitutes the most crucial factor for such a decision. Having the economic capacity to express their preferences as consumers of urban space, these population groups usually dwell in central areas undergoing gentrification and touristification, alongside tourists who use online peer-to-peer accommodation platforms; Barcelona and Lisbon are characteristic examples of the above (Cocola-Gant and Lopez-Gay, 2020; Sequera and Nofre, 2019). During the last years, Athens, exhibiting such trends but to a lesser extent, receives an inflow of individuals from various developed countries employed in local creative industries or working from distance in IT industries situated abroad – the latter often called "digital nomads" (current resident, M, 10/3/19). Signifying the transition of Athens from an international destination for tourists into a preferable destination for baseless workers and freelancers, numerous transnational companies have opened co-working offices and creativity incubators in the city's gentrifying historic center (Impact Hub, Stone Soup, etc.).

Directions for future research

The completion of this Dissertation comes at a crucial moment of societal and economic turmoil. The Covid19 pandemic has exposed the increasingly precarious position of a wide spectrum of employees within the labour markets of Athens. Not only those in the lower ranks of the economy, but also parts of the scientific and white-collar cohorts, have seen income and working hours cutbacks, as well as suspension or termination of their contracts. This labour market precarity has come at a time in which the urban workforce was facing numerous other threats stemming from socio-spatial shifts, such as the explosion of the short-term rentals' markets. The synergy of touristification and economic recession has produced a crisis of affordable housing and a degradation of stable employment, increasing the vulnerability (and hence, the displacement pressures) for a large part of the city's population, especially at the very central districts. At the same time, urban planning interventions such as the contemporary "Grand Promenade of Athens", a project implemented just in mid-June 2020 to beautify some of the traffic-choked streets much favored by tourists, aspire to aggressively push the long-coveted gentrification of the city center in order to resemble those of the other European capitals. Additionally, the consolidation of undocumented immigrants and refugees living as homeless across central areas perplexes the situation. This, a combined effect of spikes in flows and a hardening stance by the government as a response, is expected to create *opportunities for disinvestment* and justify the Athenian gentrification through a discourse of "purification and fear" (see Alexandri, 2015). Interestingly, the same pandemic that has exacerbated the vulnerability of large volumes of urban dwellers, has put short-term rentals under heavy pressure as well. The explosion of the market as witnessed from 2016 until 2019 has been abruptly hampered. Despite the difficult position many owners of listings have found themselves into, however, the market slowly moves towards mid-term rentals, at least for the time global tourism flows are impeded by the new virus. Even if this market reconfiguration lasts much longer than currently expected, peer-to-peer accommodation will continue to affect the organization of housing markets if not kept under check. Thus, the findings of the research at hand remain relevant and call for further scrutiny.

One additional direction further research could head to, is the use of a more quantitatively-driven methodology in the inquiry of the recursive relationship between gentrification and labour precarity. The use of large datasets (Big Data) would allow a more granular approach in temporal (real-time data) and geographical (greater detail) terms. Furthermore, such an approach would cover a substantial gap in the Greek literature, as such data have not been used in the research of these issues. In fact, the above refer to a gap in the international literature as well, as this field is still relatively nascent. Actually, a great effort has been dedicated by the author to the formation of a comprehensive methodological framework towards this direction: the Economic Geography lab at the University of the Aegean has already proceeded with synergies in order to ensure the availability of data and expertise on state-of-the-art techniques for their processing.

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ANNEX
Supplementary material

ANNEX I

Gentrification in the Greek context: Urban transformations and labour markets amid crisis[34]

Introduction

Gentrification as a subject has produced a rich literature, extending over half a century, since it was first introduced in the 1960s. Initially a marginal process pertaining to the influx of middle and upper classes in working class neighborhoods, leading to the renovation or rehabilitation of *in situ* degraded housing stock and public spaces, it evolved to be a globalized process that transcends the confines of urban space. Regardless the approach, three elements are consistently highlighted as central: first, the upgrading of the economic base, second, the improvement of the physical environment, and third, the shift in the social character and culture of the gentrified neighborhoods.

The objectives of the paper at hand are two: the review of the literature and our positioning. The second task will be carried out by developing a conceptual framework for gentrification, drawing influences from the international environment, and specifically adapting them to the Greek context. The geographical scope focuses on the Athenian landscape, for two reasons: first, the paper is part of a wider research that addresses urban and labour transformations in Athens, and second, relevant literature for Thessaloniki and other urban agglomerations is notably limited. Our aim is to provide the reader a comprehensive and thorough view on gentrification, with care to demarcate its relationship with labour markets' transformations.

The structure of the paper goes as following. The first chapter addresses the literature from the first studies up to recent ones, and is divided in three subchapters: (i) the central approaches and the first debates, (ii) the stalling of discussion in the 1990s and the sugar-coating of the term gentrification, and (iii) the contemporary approaches, incorporating cases from all over the globe. The second chapter (i) begins with a general conceptualization that applies regardless the approach, and (ii) closes with a demarcation of the Greek gentrification context.

Literature Review

Central Approaches and the passage to a complementary theory

The coining of gentrification is attributed to Ruth Glass, who devised the term in her 1964 paper "Aspects of Change", while studying the transforming Islington neighborhood in London. The majority of relevant studies that followed the next few years, marked the back-to-the-city movement of the 'new' middle classes (Pattison, 1977), their inclination for a historic preservation of highly aesthetic architecture (Fusch, 1978; Hamnett, 1973), and the policy implications for urban planners (Laska &

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Spain, 1979), as central aspects of gentrification. The geographic scope of those first studies regarded mainly case studies from London and a few other global cities (e.g. Boston and Washington DC). Moreover, most academics highlighted the marginality of gentrification: Whyte (1980) presented it as a relatively small-scale process taking place only in central areas of a few global cities, while others pointed out that there will be a time before any major impact is felt. Even until the next decade (1990s), its presence was deemed insignificant in older industrial cities (Hamnett, 1991).

In 1978 David Ley presented his paper “Inner city resurgence and its societal context” to the Association of American Geographers annual conference. His later theory on gentrification had its roots in this paper, and specifically the emergence of advanced capitalism as explained by Habermas, and the post-industrial society, as described by Daniel Bell. The transition between industrial to post-industrial capitalism stood pivotal for the birth of gentrification according to Ley (1986), as the market power of a white collar labour force increased. His approach addressed the consumption aspect of gentrification, and promoted four elements as central: demographic changes, bringing the “gentrification generation” to the forefront of economic and social life, housing market dynamics that facilitated this return of the middle classes’ segments to the inner-city, urban amenities, attracting those groups downtown, and transitions in the economic base which created a demand for managerial and office labour in the Central Business District.

“Toward a Theory of Gentrification: A Back to the City Movement by Capital, not People” by Neil Smith (1979) came the following year as a response mainly to neo-classical consumer sovereignty models, but also to the post-industrialism thesis. The author distanced himself from the approaches that put emphasis on the consumers of gentrification and their motives -conflict with the imagery of suburbia, a “civic duty” for historic preservation, and a desire to live in an artistic habitus-, and focused on the flows of capital comprising waves of investment and disinvestment. He introduced the notion of the *Rent Gap*, namely the gap between land values under current use and values under the optimal use. In relation to the demand side, Smith argued that crucial to the process was not the will of the “gentrifiers”, but the economic viability of redevelopment and rehabilitation of inner-city housing. When this option became economically feasible, inner city areas started redeveloping, and then the middle class – driven by economic and cultural motives – grasped the opportunity.

The influence of the Rent Gap Theory has been heavy and longstanding; a series of attempts to operationalize it was published throughout the following decades. The major problem researchers faced with this endeavor, was to divide land value into two components: capitalized land rent (the amount a landowner can charge for the use of his land) and house value (the value of any structures on the land). The most thorough effort was carried out by Clark (1988), but his method was overly time and labour intensive; therefore, such researches used very small samples (up to a few blocks), and were unable to cover a wider area. Porter (2010) used tax data for the whole metropolitan area of New York, avoiding the tedious data-coding of former researches, but his calculation of the capitalized land rent was inevitably less precise. The theory was validated in some cases (Clark, 1988; Porter, 2010), while critiqued in others (Bourassa, 1993).

The consumption side was born before Smith’s input but the culmination of this ‘movement’ came during the following decades. The fermentation of 1970’s approaches (Hamnett, 1973), Bourdieu’s influence on the “aesthetic disposition”, and Zukin’s 1982 work on the factor of historic preservation, led to the articulation of the “emancipatory inner city” thesis by Caulfield (1989) and the “artistic urbane habitus” by Ley (1994). There, instead of historical materialist reasons, the root cause of gentrification is the desire, needs and rationale of its consumers; these classes leaving the obsolete suburban landscape for the emancipatory spaces of the inner city (Caulfield, 1989). Demographic, educational, and class influences conditioned the “aesthetic disposition” of the “new middle classes”.

This vein in the literature expressed the 1980s spreading of postmodernism and the "cultural turn" in urban studies (Slater, 2011); gentrification was studied vis-à-vis issues of gender, sexuality, and race.

Already in the same decade (1980s), voices emerged expressing that gentrification had to be understood under both production and consumption terms. Either way, both approaches had seeds of each other from the start; Smith accepted the partial transformation of the middle class, even though not in Marxian terms, and Ley placed class issues and wider economic forces at the epicenter of his articulation. Zukin (1982), who primarily influenced the consumption approach, sided herself with Smith, as she saw culture subservient to capital (also argued by Lees, 1994). Smith in later papers (1987) counted in the impact of individual's actions -albeit in collective social action terms-, arguing that these "new" middle class individuals, consumed gentrification in an attempt to distinguish themselves from the "bourgeoise above and the working class below". His reasoning resonated Ley and Bourdieu's articulations regarding the aesthetic disposition of those classes, a trait which nonetheless expresses class privilege.

By the end of the 1980s, the link between housing and labour markets was established. The consolidation of commercial activity in the Central Business District due to the tertiarization of the economy, increased demand for professional/managerial positions; this transitional period saw middle class office workers pouring in whereupon the working class resided for. Both central approaches pointed out that the nature of capitalism shifted throughout the postwar decades (Smith by Postfordism and Ley by Postindustrialism), bringing new spatial divisions of labour and the productive composition of modern cities at the forefront of gentrification research (Smith, 1987; Zukin, 1987; Ley, 1986). Marcuse (1989) clarified that it is housing markets that follow labour transitions, and not the opposite, as others supported.

Emergent spatial divisions of labour and expanding forms of gentrification created a mix of various theories, transcending the initial explanations, and rendering previous dualisms obsolete. Moreover, most of the divisions occurred over the years over the root causes, intensity, or forms of the process, could be simply addressed as different types and periods of gentrification (Lees, 2000). The introduction of a clearly defined periodization further contributed to this direction. Hackworth and Smith (2001), used the notion of *capital switching* of David Harvey to conceptualize the successive phases of gentrification; from the first sporadic, discrete and marginal process, taking place in central neighborhoods of global cities in the 50s and 60s to the anchoring phase after the fall of Fordism, and the generalized urban policy of the 90s and 00s.

Since the early 1990s, a growing number of scholars pointed out the expatiating nature of the process, what Hackworth and Smith (2001) meant by "generalized urban policy". This expansion took multiple forms: in geographical terms, the phenomenon metastasized from downtown to peripheral areas of the city, from urban to non-urban space, and from global/large to smaller cities. Moreover, additional land uses were incorporated to the process (that is besides residential and recreation). Phillips (1993), observed the impact of class and labour on gentrification-related transformations in rural areas. Gotham (2005) indicated the intermingling of gentrification and tourism-related activities, and his study integrated issues of security, spectacle and the dominating influence of large entertainment firms in the built environment. Super-gentrification was a return of the process to already gentrified loci, in cities like London, San Francisco and Ney York, but in a more intensified way. It signified the emergence of an upper-class comprising financiers, who, unlike previous types of "gentrifiers", had little rooted relationship with their neighborhood (Lees, 2000).

The stalling of the debate and the sugar-coating of gentrification

Intensified gentrification brought out emerging processes in the urban realm: securitization, "disneyfication" (to be reduced to a mere spectacle), and ultimate commodification of city life. Ley (2003) highlighted the importance of spectacle in the city, using the notion of aestheticisation, and Smith (1996) pinpointed the impact of class struggle and race in the securitization processes. Deriving from hegemonic class identities, gentrification became a levelling force, acquiring attributes more complex than mere urban renewal. However, the recession of the early 1990s made it seem like gentrification had "ran out of steam" (Bourne, 1993). The language of "de-gentrification" unfolded in two ways: a part of academia stated the process was reduced again to a marginal state, and another neglected its negative impacts. Indeed, the stalling of the process in London areas, as borrowers were stuck with mortgage liabilities exceeding the market value of their holdings, and the massive corporate lay-offs in US, hitting those professional middle classes that had facilitated gentrification for so long, constituted an almost too heavy blow (Lees, 2000).

From mid-1990s onwards, scholars and the media started treating gentrification differently (Slater, 2011). The profound gap in the approaches of Caulfield (1989) and Smith (1996), indicated that the debate had shifted over to the impact of gentrification. The consumer approach, through a series of "theoretical mutations", ended up overlooking poverty and injustice caused by gentrification. City planners and realtors even avoided the use of the term gentrification itself, as it had taken a negative meaning, naming it urban renaissance, renewal, or "partial gentrification". Britain's Urban Task Force "Towards an Urban Renaissance" and US Department of Housing and Urban Development's "The state of the cities" reports, both from 1999, promoted "rehabilitation" of the inner-city as a gateway to a "civilized city life" and attributed environmental sustainability to the process (Lees, 2000). Social mixing, social capital, civic culture, environmentalism, and liveability, were all terms introduced in that period to "sugar-coat" the effects of and justify gentrification (Uitermark, 2003). It was argued that improvements in employment prospects, public services, socioeconomic integration and built environment, benefited low-status households as much as the well-off. Interestingly, Vigdor (2002) argued that low-income residents were unwilling to pay for upgraded services and dwellings, largely because they disapproved changes in "neighborhood character", and not because they could not afford them.

The opposition then took a harder stance, stressing out once again the hardline class rhetoric accompanying the renovations, that signified a "revanchist" return of the middle classes in the inner city (Smith, 1996). The frailty of gentrification under crisis pressures was also doubted (Smith, ibid), and indeed, by the end of the 1990s, "post-recession gentrification" had already been studied and validated (Lees, 2000).

Contemporary approaches under a "glocal" scope

In the previous subchapters, we witnessed how debates in the field of gentrification research shifted over time. During the first decades, the main source of disagreements was about root causes and the role of consumers, in addition to the real magnitude of the phenomenon (Maloutas, 2011). During the mid-1990s, the debate was about the frailty of the process amid recession, and its impact upon non-privileged households. Today, the dualisms between consumption and production approaches have been called obsolete (Lees, 2000), and gentrification's magnitude and expansion in the cities of the Global North is unarguable. The debate has steered towards content and contextual relevance. With gentrification becoming a commonly implemented urban strategy, it is questionable whether its hitherto theoretical conceptualization can be applied to contexts whereupon this terminology is novel: cities of the global periphery, peripheral/smaller cities, or older, traditional industrial cities etc. Relevant literature presented for some years a hesitation to engage with those new contexts, even though master plans and official documents have had an implicit "gentrification vocabulary".

Parts of the academia doubt the actual geographical expansion of gentrification *per se*, and moreover, argue that its theoretical framework cannot be applied on contexts and cases that it does not really fit. For that end, concepts and descriptions have emerged, that either focus on specific aspects of the process, or serve to clarify distinctions between gentrification and other forms of urban renewal. This cohort in academia rightly so pinpoints that the term gentrification should not get confused with other similar urban transformations, as this broad use of the term actually deducts meaning and analytical clarity from the term itself (Maloutas, 2011). Other voices, coming from postcolonial theory, express further concerns about "westernizing" Global South academia through the act of "theory travelling" (Robinson, 2011); their goal is a particularized and "highly contextualized" theoretical framework (Lopez-Morales, 2015). The research of urban transformations also has to count in urban models where "public land ownership, mixed tenure, and economic informality" endure (Ghertner, 2015).

Hence, this side alternatively proposes a more focused terminology, highlighting already-in-use terms, such as 'super-gentrification', 'residentialization', 'studentification', 'reurbanization', 'embourgeoisement', 'greentrification', and 'rural-gentrification' (Maloutas, 2011). Some of the above are more appropriate than others, but most of them are commonly used in the academia for more than a decade; however, it must be noted that this over-focusing steers the attention away from critical issues of the urban renewal processes, such as displacement and social polarization, discarding generations of critical inquiry for the sake of a definitional purity (Wyly, 2015).

Regardless of the critique, gentrification literature has grown and incorporated a multiplicity of concepts into various theoretical approaches; the main reason for that is exactly the expansion of its geographical scope. The first studies addressed marginal cases in neighborhoods of global cities (of the Global North) such as London, New York, Boston and Toronto. Subsequently, the research included other cities of Britain, Australia, the US, and Canada; soon, the literature comprised cases from Northern Europe, such as Germany, the Netherlands, and the Scandinavian countries. With the dismantling of the Soviet Union, scholars started noticing gentrifying signs in the cities of ex-socialist countries that were under immense privatization pressures (Sykora, 1996). Lees (2000), Smith (2002) and others noticed that gentrification as an urban strategy had conquered previously uncharted territories, and their remarks initiated a renewed 'homecoming' to the geography of gentrification, after a decline of half a decade.

Gentrification now has been scrutinized in conjunction with gated communities and rapid urbanization in Chinese cities – "citadel gentrification" as has been called (Atkinson & Blandy, 2005) –, the strange mix of cosmopolitanism and favelas in Brazil (Rubino, 2005), medieval and Renaissance architecture in South Europe (Petsimeris, 2005), mass entertainment and tourism in Southeast Asia or insular Spain (Gibson, 2009), neo-colonialism and religion in Morocco (Esher & Petermann, 2000), or oil-driven economy in Ghana (Eduful & Hooper, 2015). Postcolonial theory has sparked the debate of whether concepts of the Global North can 'dictate' the discourse of urban affairs globally, but has also put into play the notion of colonialism in its literal sense (not as class-colonization that Neil Smith had often used). Urban strategies have been "migrating" from the Global North to other contexts under the force of transnationally embedded neoliberalism, with the help of global EXPO and athletic events - such as the Olympic Games; Barcelona and Beijing are prominent examples for that (Smith, 2011). Gentrification also has returned to the neighborhoods of the global cities it first occurred, to take a fast-spinning form, pushing the boundaries of the process itself (see super-gentrification). The opponents of the “skeptical side” that doubts the actual expansion of gentrification, point out that its geographical sprawl is tangible, and its presence in its initial loci is growing stronger (Wyly, 2015; Lopez-Morales, 2015; Lees, 2003).

Discussion: Towards a conceptualization of gentrification in the South EU context

Definitions, underlying processes and functions of gentrification

It has been already highlighted that gentrification, in order to be distinguished as such, must bear three features (Smith, 2011): the upgrading of the economic base, the improvement of physical environment, and the shift in the social character and culture of the neighborhood.

Gentrification functions as the force that shapes urban space, so that will serve the needs of a post-fordist economy; it follows the tertiarization of the economy and the consequent urban labour markets’ transformations. Before these shifts however, wider processes must operate and allow gentrification to come about. Switching from the primary (industrial and manufacturing production) to the secondary (land, real estate, housing, and the built environment) circuit has historically occurred after overaccumulation of capital in the former; it represents not only a *post hoc* response to recessive pressures, but a conscious strategy to exploit opportunities in the built environment caused by rent gaps (Gotham, 2009). Gentrification constitutes one form of spatial fixes, which take shape from capital flows’ crystallizations. When spatial fixes accumulate, they lead to fragmented and polarized landscapes (Harvey, 2001); the outcome may refer to an opportunity for further capital accumulation, based on the exploitation of the formed rent gaps, or bound and distort the flows of capital, creating the conditions for another wave of recession. The above summarize the “knife-edged path” nature of spatial fixes: a counter-measure, and a generator of economic crises.

Gentrification, as seen above, is interdependent to labour markets: diminishing low-skilled labour positions in the inner-city and rising demand for high-skilled labour, bring the latter in the living areas of the former, effectively causing displacement (Marcuse, 1989). Additionally, gentrification not only shapes the living spaces of the new middle classes, but also their fields of consumption; the nature of the process brings residential and commercial/recreational uses together, signifying the aestheticization of inner city landscapes (Ley, 2003). Activities that deviate from the aesthetical paradigm are displaced; this is evident when it comes to inner city manufacturing, which follows the involuntary relocation of the blue-collar workforce (Curran, 2004). In this way, gentrification relates to labour flexibilization; the nature of this link is dual. On the one hand, “traditional” employment is pushed out of the inner-city, and the remaining working class engage with petty, residual tasks in the tertiary sector, such as maintenance, minor fixes etc. (Curran, ibid). On the other, the inpouring middle classes, are keen on flexible and atypical arrangements that abound in tertiarized “creative” economy activities. These classes have been conditioned by post-fordist pressures, to have low job expectations and be flexible on job tasks and work schedules (Zukin, 1995). The outcome in gentrifying landscapes, is a mix of marginal and atypical arrangements -among the working class-, and flexible arrangements -among the new middle classes.

Remarks on the Greek context

In the remaining chapter below, we will engage with the basic positions in the Greek literature, present the main elements differentiating the Greek context from the prominent ones, and scrutinize the impact of crisis on gentrification tendencies.

Avdikos (2015) is highlighting the artistic aspects of gentrification in Athens, pointing out that independent artists and small events are eventually appropriated by larger firms for commercial reasons, in a process that extracts monopoly rent out of uniqueness of local culture. Two recent online articles by BBC (Sooke, 2017) and the New York Times (Brownell-Mitic, 2017) indicate the latter; there, Athens is presented as the potential new arts capital of Europe. Alexandri (2015) has tracked down and identified the main forms of gentrification in the capital, pointing out that in districts such as Gazi and Keramikos, the process has advanced enough to incorporate marginal gentrifiers and independent artists alongside more affluent professionals. This coexistence refers to a second phase of gentrification; "urban pioneers" – alongside pauperized and elderly people – are already feeling the pressure of displacement caused by rent rises. Additionally, the influx of refugees and undocumented immigrants perplexes the situation, creating on the one hand "opportunities for disinvestment", but on the other preventing the establishment of secure environments for entrepreneurship and investments. For that reason, gentrification in Athens has been justified by a discourse of *purification and fear*, deriving from the feelings of insecurity dominating the middle-class dwellers already living there (Alexandri, 2015). Overall, these processes in Athens remain fragmented and unfinished; raising doubts among researchers, as to whether they constitute actual cases of gentrification or not. One of those is Maloutas (2011), who argues against the presence of gentrification tendencies in the Greek context. Instead, he highlights other processes at work, specifically for Athens: suburbanization, and vertical social differentiation (where households of lower income live at lower floors, and of higher income at the top floors). He pinpoints the importance of homeownership, which has led to reduced mobility, and the consolidation of existing social forms (Leontidou, 1990). However, homeownership is receding, and vertical social differentiation has nothing to do with the eviction and rebuilding of previously derelict areas, such as Metaxourgio and Kerameikos. Additionally, suburbanization is a process that can take place simultaneously with gentrification, as is the case in many other parts of the globe. Athens, from our point of view, presents classic gentrification tendencies, which moreover derive from three central factors: first, the city is required to function in a highly competing international environment, second, a flow of global capital is witnessed in its built environment, and third, purification and "rationalization" of inner-city spaces are part of the political vocabulary.

For a city like Athens, gentrification signifies attractiveness and effectiveness, in both the economic and the administrative level; it can provide secure spaces for investment (Avdikos, 2015) and entrepreneurship (Alexandri, 2015). However, any research on Greek gentrification must count in the undoubtable impact of the ongoing economic crisis. Smith (2011) notes that the systemic attributes of European gentrification, on the one hand lead to larger projects, but on the other weaken its resilience against recessive pressures and downturns of economic cycles. In the case of Athens, the economic crisis has a stagnating effect, without stalling existing transformations completely (Alexandri, 2015). The wave of privatizations of public property, an urban planning "unrest" with several projects in motion (ReThink Athens is one prominent example), and several existing inner-city loci of gentrification, are conditions that could facilitate further transformations. Moreover, the declining performance of domestic manufacturing activity has driven capital to the secondary circuit and the built environment. On the other hand, the collapse and flexibilization of constructions indicate a profound crisis in the sector, stalling projects and changing the way spatial fixes consolidate (Gourzis & Gialis, 2017).

The key to understand the unravelling of such processes in the Athenian landscape, is labour markets' transformations. Increased need for high-skilled labour will fuel the relevant housing market, and the simultaneous precarization of lower-skilled workforce will render it unable to withstand displacement pressures. Indications of the above can be traced in the port of Piraeus, which presents rising activity and attracts an international workforce; the mass privatization of the port has aggravated working conditions for technical and unskilled labour. These shifts are reflected on the surrounding neighborhoods, such as Troumpa, which turned from derelict loci with dilapidated building stock, to hubs of urban regeneration, that attracts a “colorful mosaic of yuppies, hipsters, and ship-owners” (Grammeli, 2017).

Conclusions

This paper served as a review of the most important parts of a literature spanning for more than half a century, and a presentation of our interpretation. We approached the essence of gentrification making use of three prominent notions: (a) capital switching, which turns gentrification into a spatial fix, (b) rent gaps, which constitute particularized opportunities for capital investment in the built environment, and (c), the tertiarization of the economy, which creates the need for higher quality housing stock and amenities in the inner-city.

Gentrification, as a spatial fix, presents a twofold, contradicting nature: it is an outlet for over-accumulated capital in the primary circuit, and at the same time, bounds capital locally, turning it rigid and immobile, thus creating the conditions for future recessions. Additionally, the systemic turn of gentrification has rendered it more vulnerable to crisis pressures; however, the impact of recession is still unclear. Experience from the early 1990s US crisis validates the fast recuperation of gentrification, but the highly variated European context makes an assessment more difficult.

The rent gaps emerging during this period of rearrangements, indicate that urban space fermentations will produce gentrifying tendencies in the Athenian landscape, with several loci already identified. Additionally, housing market values in gentrified areas indicate an increased resilience. The outcome of the attempts to establish Athens and its port Piraeus as a significant link in the chain of international flows of capital, will largely determine the further unfolding of regeneration tendencies. The ongoing crisis however, strips the city of its economic base, which is in a downfall for more than seven consecutive years; will the recession truncate the attempts for further urban transformations, or will it widen existing rent gaps, and render uneven development geographies directly exploitable? Since gentrification is a contingent result of multiple factors, we will leave this prediction as a subject for future research.

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ANNEX II

Inter-regional underemployment and the industrial reserve army: precarity as a contemporary Greek drama[35]

Introduction

The economic crisis that erupted in 2008 has seen significant hardship visited upon many workers through reductions in their real wages. This is because reducing the cost of labour is one of the most common paths capitalists select to quickly regain profitability (Bachtler and Davies 2010), as upgrading production technologies or developing new products usually come at a higher cost, with greater risk, and have longer implementation timeframes (Shaikh 2011; Hadjimichalis 2011; Harvey 2011). Employers frequently reduce labour costs by securing greater labour flexibility through changing work rules (which often involves breaking unions) and by increasing employment precarity. These strategies have been especially widespread in semi-peripheral countries of the European South, such as Greece (Gialis and Leontidou 2014, Theodore and Peck 2014).

As the Greek crisis has unfolded, shrinking work opportunities and the replacement of full-time employment with precarious forms of work (like involuntary temporary and/or part-time work) have become major causes of growing economic inequality and social exclusion. The growth of part-time waged work in particular is a central aspect of contemporary trends to make labour more flexible across the European Union (EU) (Gialis and Leontidou 2014; Mavroudeas 2014). This is especially so in Greece, where almost three-quarters of part-timers are involuntarily underemployed and would prefer instead full-time employment (ELSTAT 2018). The growth of such underemployment is important because it represents an expansion of Greece's "industrial reserve army." However, this expansion is occurring in a geographically uneven manner—some regions are more affected by it than are others. Given this, here we draw upon a Marxist political economy framework to explore changing regional and sectoral patterns of labour precarity. We focus upon the expansion specifically of waged part-time employment, both because part-time employment constitutes one of the most common forms of precarious work and underemployment in Greece and because space limitations mean that we cannot here analyze other types of atypical/precarious work, such as temporary employment (for more on these other kinds of precarious work, see: Nickell 1997; Peck and Theodore 2000; and Kallioras, Tsiapa, and Zapantis 2016).

The analysis below looks at part-time employment across all thirteen Greek regions. However, we place special focus upon the country's two metropolitan regions of Attica and Central Macedonia (in which the cities of Athens and Thessaloniki are located, respectively), as they contain the largest numbers of waged employees. Comparing them with Greece's non-metropolitan regions allows us to

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explore the frequently-made claim that because workers usually have more employment options in metropolitan regions urbanized economies are typically better able to resist employer pressures towards underemployment than are non-urbanized ones (see Martin, Sunley, Gardiner, and Tyler 2016; Cuadrado-Roura and Maroto-Sanchez 2016; Beyers 2013). As it turns out, what we find challenges these pseudo-optimistic accounts of metropolitan resilience, at least in the Greek case, for not only have such regions seen an increase in unemployment rates but their local labour markets also appear to be particularly vulnerable to the growth of waged underemployment in times of recession. Specifically, when compared to non-metropolitan regions, metropolitan regions have much higher levels of precarity and sharper decreases in total employment in several economic sectors. More importantly, the fact that they have levels of workforce shrinkage (especially in Attica) and precarity that are above the national average suggests that the crisis is bringing with it a national downwards economic convergence, a pattern also indicated by regional production and underemployment trends.

The paper is organized as follows. First, we explore the nature of the reserve army of labour and link this to the spatial divisions of labour which characterize the unevenly developed geography of capitalism. In particular, we argue that understanding how the reserve army is constituted requires us to be sensitive to the spatiality of capitalism, especially concerning how the spatial division of labour shapes the geography of precarity. Second, we examine the Greek situation, detailing especially patterns of part-time work by sector and by region. In the third section we discuss the results of our analysis.

The reserve army of labour as an element of labour precarity: Geographical implications and a theoretical framework

During Marx's time employment forms and labour regulation were obviously a lot different from how they are today. With few contractually protected permanent employment relationships, atypical and informal work arrangements were the norm. In this context Marx (1967) presented the concept of the "reserve army of labour" (also termed the "relative surplus population"). Marx viewed every (potential) worker who is either partially employed or wholly unemployed as belonging to this army of more or less impoverished labourers, although he divided it into several groups: i) a "floating" group, comprising those made unemployed by technological modernization or those thrown out of production through being replaced with cheaper/younger employees; ii) a "latent" group, comprising those who have not yet been fully integrated into the industrial proletariat, such as agricultural labourers who may leave the countryside for industrial work at some future point; iii) a "stagnant" group, consisting of those who work under "extremely irregular employment" in relation to relevant standards in each period of accumulation; and iv) a more or less permanent underclass made up of those unable to work (like the aged or disabled), vagabonds and criminals (the "lumpenproletariat"), the "demoralised and ragged," orphans and paupers, and the like.

Marx primarily saw the reserve army as created out of the dynamic of capitalist accumulation. In particular, he suggested that as accumulation increases the organic composition of capital (i.e., the ratio of the value of the means of production to that of labour power), the demand for labour power grows more slowly than does the quantity of capital employed. The result is that the relative surplus population tends to expand as accumulation proceeds. For Marx, this is important because it is the relative size of this surplus population, and not that of the total working population, that governs wages. The reserve army, then, is both produced by, but also central to, processes of capital accumulation. As he put it (p.592):

> *"if a surplus labouring population is a necessary product of accumulation or of the development of wealth on a capitalist basis, this surplus-population becomes, conversely, the lever of capitalistic accumulation, nay, a condition of existence of the capitalist mode of production. It forms a disposable industrial reserve army, that belongs to capital quite as absolutely as if the latter had bred it at its own cost. Independently of the limits of the actual increase of population, it creates, for the changing needs of the self-expansion of capital, a mass of human material always ready for exploitation."*

In considering reserve army dynamics, though, it is crucial to understand the role played by the state in formalizing certain work arrangements that directly affect the reserve army's form and size. For instance, the expansion of the working day, which allows employers to extract additional surplus value from their current workers by extending their labour time, thereby avoiding having to hire additional workers out of the ranks of the under/unemployed, can contribute to the reserve army's expansion. Whereas in Marx's time—at least until passage of the 1847 Ten Hours Act—British laissez-faire ideology meant there were no real legal restrictions on the working day's length, today any expansion of it is typically heavily regulated by the state. Equally, when left to their own devices, competition may tempt employers to engage in super-exploitative forms of production that endanger the reproduction of the labour force (the ultimate source of capital) as a whole. Consequently, governments often impose regulations to protect capitalists from themselves, something that Marx noted with his discussion of how the English Factory Acts ensured that capitalists collectively were forced to play by the same rules so as to not overexploit their workers—overexploitation might cause workers to be unable to reproduce themselves on a daily or generational basis and thus create crises of accumulation down the road (see Booth 1978 for more details). Equally, it is important to consider how labour sometimes resists and sometimes accommodates itself to efforts by capital and the state to expand the surplus army (e.g., through workers challenging [or not] efforts to make work more precarious).

Certainly, one way to understand the reserve army's role in today's economy is to allocate to each of the segments Marx identified those workers who are not in full-time waged employment. For instance, in some economies the "stagnant group," made up of workers subjected to part-time, seasonal, and/or temporary employment, is the largest component of the reserve army. In others, like those undergoing a transition from an agrarian to an industrial society, the "latent group" is likely to be largest. Examining the total numbers of workers falling into these various categories, then, can tell us something useful about the nature of an economy at any given time, especially as the army's ranks typically swell during periods of crisis and diminish when the economy is doing better. For this reason radical political economists (and others) have often focused upon this *in toto* waxing and waning. However, here we are not so much interested in allocating empirically workers to different segments of the reserve army as we are in understanding how this army is constituted geographically over time and how its spatiality is both derived from capitalist expansion but also what it means for it. Detailing how the reserve army's relative expansion and contraction is geographically uneven and how its composition may vary from place to place, we believe, provides greater insights into how its form is shaped by, and shapes, capitalism's spatiality than does examining just the reserve army's changing total size over time. By exploring the changing geographical structure of the Greek reserve army before and after the 2008 crisis, then, we seek to contribute to efforts to more fully comprehend the unfolding historical geography of Greek capitalism and (potentially) to provide a means for understanding what is going on in other capitalisms too.

Better comprehending the geography of the reserve army allows us to do two things. First, it ties understandings of this army's role in accumulation into the broader literature which sees capitalism as a system of economic organization that is not just contingently but is fundamentally geographically structured (Harvey 1982; Smith 1984; Herod 2001). It furthers, in other words, historical geographical materialist understandings of capitalism. Second, it allows us to interrogate the oft-made claim (see Cuadrado-Roura and Maroto-Sanchez 2016; Green and Livanos 2015; Martin, Sunley, Gardiner, and Tyler 2016; Maroto-Sanchez 2012) that metropolitan regions are generally better able to resist the spread of precarious work than are non-metropolitan ones. One way in which these two matters can be linked is through examining the ways in which the spatial division of labour (Massey 1984) shapes how capitalism functions.

As the name suggests, the spatial division of labour refers to how particular types of work get done in particular places by particular workers. Its structure is underpinned by, amongst other things, an economy's regional sectoral specializations and how firms allocate various of their activities (HQ, R&D, manufacturing, etc.) across and within different regions (Atkinson 1987; Dicken 2003; Theodore and Peck 2014). In turn, the spatial division of labour shapes how sectoral specializations and intra-firm divisional distributions subsequently unfold. Hence, regions with workers who have experience in manufacturing as a result of how their communities fitted into a previous era's spatial division of labour may find themselves destinations for new circulating capital looking precisely for workers with such skills, whereas regions with lots of headquarters may find it easier to attract additional ones than do those with none. There is, then, a socio-spatial dialectic at play, with an economy's social division of labour shaping its spatial division and vice versa.

The spatial division of labour plays an important role in how the reserve army operates under capitalism because some economic sectors and job types are more resilient to employers' efforts to introduce precarious work than are others. For example, as a general rule business cycles negatively affect manufacturing and construction activities more than they do many service sector activities. Hence, the bursting of the housing market bubble in the late 2000s and the cutting of state budgets for infrastructure across much of Southern Europe and elsewhere rendered the construction sector especially vulnerable to precarity, which led to a remarkably unstable labour market, one dominated by subcontracting and low-quality, low-pay, insecure labour, especially in more urban areas (Maroto-Sanchez 2012). On the other hand, activities directly linked to natural resource extraction often present less opportunity for precarity than does manufacturing (Beyers 2013)—it is more difficult to use threats of moving elsewhere to force concessions on workers, for instance, because natural resources like coal and iron ore are spatially fixed in particular places. The fact that these different sectors are unevenly distributed across the economic landscape means that some places are more vulnerable to expansions of the reserve army at specific times than are others. Concomitantly, within any firm there is likely a hierarchy of employment, from secure, highly skilled full-time positions to positions occupied by those more vulnerable to precarity (Green and Livanos 2016). This means that the spatial dispersion across the economic landscape of a firm's various departments, together with the employment structure associated with each department (well-paid scientists in the R&D branch, perhaps low-wage, part-time immigrant women in labour-intensive manufacturing plants), are key factors in shaping local labour markets' capacity to resist pressures towards precarity and/or underemployment. Finally, workers' resistance or acquiescence to precarity shapes the spatial division of labour—workers' ability to limit precarity's spread may force employers to shelve work restructuring plans or it may encourage them look to relocate to other places with more pliable labour.

Complicating matters further is the fact that spatial divisions of labour are constantly being reworked, as economic crises destabilize extant spatial linkages within and between different localities and regions and forge new ones. Thus, challenges from low-wage producers in China or India or even other Balkan countries (Kumar 2019; Gwosdz and Domanski 2016) create imperatives in countries like Greece to cheapen production costs, which can disproportionately affect those regions with large shares of their employment in the sectors facing competition—a textile manufacturing region will be more directly affected by imports of low-cost clothing than will, say, a region manufacturing steel. Consequently, some regions become more vulnerable to imposed labour devaluation than do others precisely because of the ways in which they are connected geographically to other parts of the global economy (Hadjimichalis and Hudson 2014). In turn, challenges emanating from abroad may disrupt producers' relationships with other domestic regions that do not themselves have any industry facing direct competition from overseas—clothing manufacturers in a region facing greater competition may no longer purchase as much wool from an agricultural region nor as much new machinery from a machine-building region as they once did, for instance. Thus, whilst such external challenges may initially impact only a small number of places, because of the ways in which employers in different regions are spatially connected they can soon reverberate across national space-economies, in the process transforming longstanding patterns in the labour market and expanding the supply of surplus labour which, in turn, differentially impacts capital accumulation in different places (Harvey 2011).

How employers are connected across space, though, can also rework the relationship between regions. Hence, crises often entrench differences between the core and periphery, as manufacturing branch plants in peripheral regions are frequently more vulnerable to closure than are facilities in core regions (Massey 1984). But crises can also reduce differences between regions—growing layoffs in a region with previously little unemployment but hosting an industry in which a crisis is unfolding may cause unemployment levels to rise to be more in line with those regions which have long experienced economic stagnation. Moreover, such crises often unleash powerful political forces concerning who will pay the cost of the crisis, as capitalists, workers, and local government officials try to shift elsewhere economic problems through, for instance, exporting inflation or unemployment to another region/country (see Harvey 1985 for more on the concept of geographically displacing economic crises). These actors' abilities to resist efforts to shoulder the burden of crisis and/or to export their internal problems will reflect, amongst other things, their political and economic power, their ability to make alliances with actors located in other regions (maybe getting machine manufacturers or wool producers to lower their costs), and their geographic location within the global commodity chain for whatever it is they are producing (Harvey 2011; Mavroudeas 2014). Putting all of this together, what we often find is a connection between overaccumulation in one region and labour devaluation in another, with the spatial linkages between these two mediated through various socio-political and historical particularities. This connection is at the core of the uneven geographical development that characterizes the capitalist mode of production (Smith 1984).

Having outlined a conceptual framework for understanding how the dynamics of the reserve army may vary across space and over time, below we explore the Greek case, focusing particularly upon the period from just prior to the 2008 crisis's eruption to 2016. In so doing, we highlight continuities and discontinuities in patterns of regional underemployment, as well as compare across regions.

Definitions and methodology

About 65% of the Greek labour force is engaged in waged employment, with higher rates found in larger urban areas. Below, we examine how the economic crisis has affected the geography of total waged employment, full-time waged employment, and part-time waged employment across Greece's regions, with particular focus upon metropolitan regions, which are the country's principal loci of waged employment. Before proceeding, though, it is important to provide some definitional specificity. In particular, we want to distinguish between flexible labour and precarious labour, as the growth of the former does not necessarily indicate a worsening of workers' living standards whereas the latter typically does. Thus, flexible labour is that which exhibits malleability in some of the following aspects: working time, contract duration, place of work, and employment relationships (for example, subcontracting), sometimes at the behest of the worker. Labour precarity differs considerably, as it describes workers who either lack security or are in danger of falling into this condition in the near future (perhaps due to low/non-existent benefits) (Katz and Krueger 2016). Consequently, not all flexibly employed workers are necessarily precarious: a wide variety of self-employed professionals in the knowledge economy work flexibly but are quite economically secure, for instance. At the same time, precarity is not synonymous with part-time work, as many people work full-time but experience highly insecure working conditions (e.g., seasonal low-wage workers in hospitality).

We focus upon part-time workers who are employed by others and exclude those who are self-employed because the former are much more precariously employed than are the latter—mixing the two would be analytically problematic. As mentioned, involuntary part-time waged employment is one of the most common forms of precarious work in Greece. At the same time, though, we include in a single category those who are voluntarily and involuntarily employed part-time. Whereas other studies (e.g., Green and Livanos 2015) have tended to separate these two groups, we do not do so here because in Greece voluntary part-timers constitute a relatively small proportion of all waged part-timers (some 20-30%) and for both categories, remuneration is quite low (typically less than 450 Euro per month). The growth of waged part-time work, whether voluntary or involuntary, in other words, illustrates the reserve army's expansion, as many previously full-time waged workers became part-timers, and young people now entering the labour market are often forced to accept part-time work because full-time work is not available. In other words, this growth represents a general growing precarity within Greek labour markets and so it makes sense, we feel, to look at its growth *in toto*.

We focus upon changes in waged work during three time periods: 2005–08, 2009–12, and 2013–16. The first period covers the pre-crisis years right after the boom generated by various Olympic mega-projects and the financial speculation and related investments they spawned. The 2009-12 period covers the first significant years of economic recession, including the EU's first and second bailouts (officially, the first and second "Economic Adjustment Programme for Greece"), in 2010 and 2012 respectively. The last period covers the period marked by the signing of a third austerity measure, the "Medium-Term Framework for Fiscal Strategy," that included, among other things, the abolition of the National Collective Labour Agreement, which further worsened working conditions. Our research examines changes in nine economic sectors: agriculture; manufacturing; energy and resources; construction; commerce, transportation, and communications (henceforth "commerce"); hotel, food, and catering (henceforth "hospitality"); the knowledge economy; public administration, healthcare, and education (henceforth "public administration"); and leisure, arts, and services NRA [not recorded above] (henceforth "leisure and arts"). Three sectors dominate waged employment: public administration; commerce; and manufacturing (see Figure II.1). Our analysis looks at all Greek regions, but these are generally treated as groups, depending upon their productive profile.[36] We place special focus upon the metropolitan regions of Attica and Central Macedonia to test the argument that vibrant metropolitan regions are better able to resist precarity. These two metropolitan regions generate almost two-thirds of Greek GDP and total employment, although there are some notable differences between them—Attica is almost entirely constituted by Athens, the port of Piraeus, and several important adjacent urban agglomerations (i.e., its territory is virtually all urban in nature) whilst Central Macedonia includes Thessaloniki (Greece's second-most-populous city) but also a great variety of non-urban areas (e.g., the Chalkidiki peninsulas, which are significant tourist spots). Compared to Attica, then, Central Macedonia is more diverse, with higher proportions of the labour force employed in agriculture and tourism (including in hotels, food preparation/catering, and entertainment) (Gialis and Tsampra 2015; Kallioras, Tsiapa, and Zapantis 2016).

One important analytical tool we use is the Location Quotient (LQ).[37] This allows us to quantify regions' shares of total waged, full-time waged, and part-time waged employment relative to national figures to highlight any regional concentrations in the three types of employment under study. We recognize, however, that because regions' LQ values are dependent upon national figures, which vary year to year, a fuller picture of employment change requires that we look at other data, too, in order to make year-to-year comparisons. Consequently, we also investigate how the absolute numbers and shares of workers in, and their distribution across, different employment tenure types in each sector change over time in each region.

In what follows, we initially examine the sectoral structure of the domestic workforce in full-time and part-time waged employment. We then examine the shares and relative concentrations of each type of employment (total, full-time, and part-time waged employment) for all Greek regions. Finally, we

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[36] According to Gialis and Tsampra (2015), Greek regions can be roughly categorized into four groups: agricultural (in our tables these are marked in green); manufacturing (red); metropolitan (grey); and touristic (blue).

[37] As used here, the LQ quantifies whether a given region has an over- or under-representation of a particular type of employment relative to the national average. It is computed as follows:

$$\mathrm{LQ} = \frac{\mathrm{ei}/\mathrm{e}}{\mathrm{Ei}/\mathrm{E}}$$

Where:
ei = Regional employment in employment type i
e = Total regional employment
Ei = National employment in employment type i
E = Total national employment

LQ values greater than 1 mean that the employment type is over-represented in the region, relative to the nation as a whole; LQ values below 1 mean the opposite.

analyze overall employment and how workers are distributed between full- and part-time work in Greece's two metropolitan regions.

Analysis

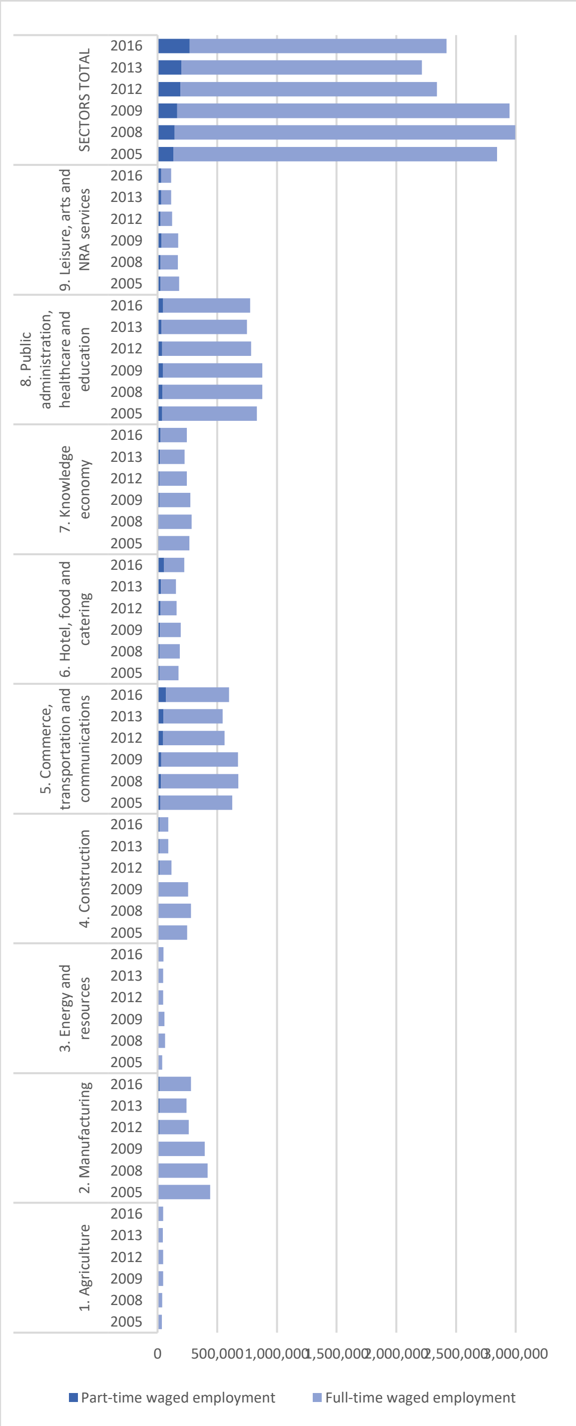
Sectoral breakdown of waged employment in Greece

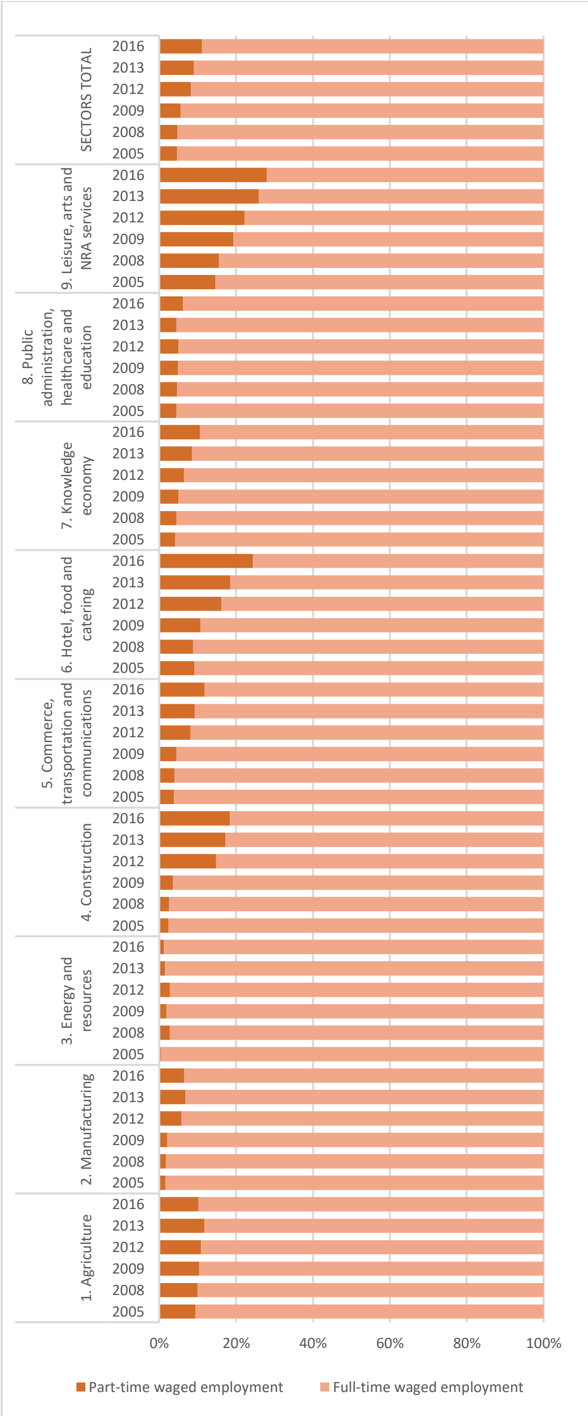
Examination of employment trends shows that total waged employment in most sectors has followed the broader shifts of the economy pre- and post-crisis: 2005–08 was a period of expansion, followed by a notable decline between 2009 and 2012 during which the economy lost 635,000 (23%) of its full-time waged jobs, whilst 2013–16 witnessed a mild recovery in most sectors, except for construction and leisure and arts (Figure II.1). Arguably the most significant trend, however, has been the growth of part-time waged work. Although all sectors except for leisure and arts had seen small increases in part-time workers between 2005 and 2008, the crisis's outbreak kindled a striking increase.

Between 2009 and 2012 part-time waged employment grew 16.7% nationally and another 35.5% from 2013 to 2016 (Table II.1). In total, 2009 to 2016 saw a 64% increase (from 165,000 to 271,000), though there were some countervailing sectoral tendencies—part-timerism in agriculture and energy and resources (both sectors with minimal employment) dropped, mirroring an overall loss of waged employment in these two sectors, whilst in the public administration and leisure and arts sectors numbers fell between 2009 and 2013 but rose slightly between 2013 and 2016 (Figure II.1).[38] Overall, then, the national picture reveals that although waged part-time work constituted a relatively minor aspect of total waged employment before the crisis it has rapidly expanded in most sectors, if unevenly—manufacturing, commerce, and hospitality all saw numbers more than double between 2009 and 2016 whereas other sectors experienced smaller increases. Given that these sectors' importance varies across Greece, the greater shift to part-time work in some and not others has contributed to a very uneven geography of the reserve army's growth (see Gialis, Gourzis, and Underthun 2017), as we explore below.

[38] In public administration the 2009-13 drop was due to the government's laying off of the bulk of flexibly employed civil servants, whereas in leisure and arts it was largely because of declining demand for those services.

Figure II.1: Part- and full-time waged employment nationally, by sector, 2005-2016, absolute numbers (a) and percentage (b).





(a)
(b)

Source: Authors' calculation, based upon HELSTAT's Labour Force Survey data.

Table II.1: Percentage changes in total employment, total waged employment, and part-time waged employment, by region, 2005-2016

	Total employment change (%)			Total waged employment change (%)			Part-time waged employment change (%)		
	2005-08	*2009-12*	*2013-16*	*2005-08*	*2009-12*	*2013-16*	*2005-08*	*2009-12*	*2013-16*
ATTICA	4.6%	-21.1%	3.7%	4.6%	-21.4%	7.2%	-3.0%	29.3%	28.3%
CENTRAL MACEDONIA	3.9%	-20.3%	11.8%	4.3%	-23.0%	15.8%	30.7%	-9.5%	63.2%
EASTERN MACEDONIA & THRACE	1.2%	-14.8%	7.1%	6.0%	-18.3%	9.1%	-5.0%	17.5%	44.4%
EPIRUS	5.7%	-16.8%	2.5%	5.1%	-14.8%	12.4%	31.5%	-4.1%	42.2%
WESTERN GREECE	2.5%	-20.5%	1.3%	3.3%	-23.0%	8.8%	32.0%	-9.3%	84.0%
THESSALY	0.6%	-18.7%	-1.2%	8.2%	-24.7%	4.9%	9.0%	-14.0%	22.8%
PELOPONNESE	6.1%	-17.4%	2.6%	11.4%	-12.0%	12.9%	7.8%	0.8%	23.0%
WESTERN MACEDONIA	6.8%	-24.5%	5.2%	7.7%	-22.1%	9.2%	15.3%	67.5%	17.5%
CENTRAL GREECE	2.9%	-19.9%	4.1%	7.2%	-18.7%	2.7%	51.2%	34.3%	85.3%
IONIAN ISLANDS	2.7%	-8.2%	0.7%	11.4%	-12.1%	15.4%	-25.5%	228.3%	-9.9%
SOUTH AEGEAN	4.5%	-4.3%	5.7%	5.7%	-6.6%	2.8%	15.1%	-22.5%	32.6%
NORTH AEGEAN	0.3%	-6.5%	2.6%	16.5%	-16.2%	0.8%	-18.5%	23.0%	10.2%
CRETE	2.5%	-16.7%	2.7%	3.0%	-23.0%	22.2%	-3.4%	38.9%	11.8%
NATIONAL	**3.8%**	**-18.9%**	**4.6%**	**5.4%**	**-20.6%**	**9.4%**	**8.7%**	**16.7%**	**35.5%**

Source: authors' compilation based on HELSTAT statistics for the respective years

Concentrations and shares of waged employment across Greece

The LQ values in Table II.2 show that regional shares of total waged employment have generally remained fairly constant over the past decade. However, a closer look reveals at least two important elements regarding the geography of total waged employment in Greece. First, even amid a profound decline in the size of their total labour forces between 2009 and 2012, employment in Attica and Central Macedonia is more likely to be waged than is the case in other regions.[39] This is especially so in Attica, where more than 45% of the country's waged labour force resides and where the share of all workers in waged employment increased slightly between 2008 and 2016 (78.0% to 79.9%). However, whereas Central Macedonia generally had the second highest shares of total employment that was waged, the proportion of its labour force in waged employment dropped slightly (62.0% in 2008 vs. 61.9% in 2016), even as nationally the proportion of Greece's labour force in waged employment increased, from 65.0% to 65.9%. For their part, the two manufacturing regions of Western Macedonia and Central Greece had similar proportions of their labour forces in waged employment in 2005 but by 2016 they had diverged noticeably. Meanwhile, agricultural regions have some of the lowest proportions of their labour forces in waged employment, as self-employment is common (e.g., people selling home-produced olive oil). Although most saw declines in the proportion of their labour force that was waged between 2009 and 2012, they all saw increases by 2016, if unevenly. Meanwhile, the island regions mostly stood in between the extremes of the other regions, exhibiting the greatest degree of variation despite their common orientation towards the hospitality industry. Hence, whilst all regions saw waged employment shares decline during 2009–12, followed by recoveries, the North and South Aegean had mild decreases and lagged behind the national 2013–16 trends whereas the Ionian Islands and Crete saw their proportion of all employment that was waged expand significantly. The second element revealed by the data is that the regions' ranking by total waged employment LQs changed significantly between 2005 and 2016. Although the two metropolitan regions continued to rank highly, others either saw waged employment become more significant relative to the national average (e.g., Crete, the North Aegean, and the Ionian Islands) or less so (e.g., Central Greece and Eastern Macedonia and Thrace), suggesting that the crisis has reorganized the geography of waged employment in the country.

Regarding full-time waged employment, we notice similar trajectories to those for total waged employment—regions with overconcentrations or underconcentrations in total waged employment tend to be those with overconcentrations or underconcentrations of full-time waged employment. By way of contrast, although overall part-time waged employment more than doubled, reaching 7.4% of all employment in 2016, and all Greek regions saw growth between 2005 and 2016, part-time waged employment's spatial patterns and temporal fluctuations present much greater variance relative to regions' total waged employment values, showing that part-timerism expanded or contracted at different rates at different times across Greece. Hence, in Western Macedonia (very dependent upon manufacturing) and the Ionian Islands and Crete (both with large hospitality industries) part-time waged work LQs grew significantly between 2009 and 2012, even as they declined in the South Aegean, Thessaly, Central Macedonia, and some other regions. Equally, between 2013 and 2016 the proportion of workers who were employed part-time grew dramatically in Western and Central Greece and Central Macedonia relative to the nation as a whole. In other regions it grew less significantly, and actually declined slightly in the Ionian Islands.

[39] Both regions have LQs higher than all others except that the South Aegean's was higher than Central Macedonia's in 2013 and equal to it in 2012 and Crete's was higher in 2016.

Table II.2: LQ value and proportion of all employment that is waged, full-time waged, and part-time waged, for all regions and Greece, 2005-2016

	Total waged employment LQ						Full-time waged employment LQ						Part-time waged employment LQ					
	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016
ATTICA	1.22	1.20	1.21	1.23	1.23	1.21	1.22	1.21	1.21	1.23	1.22	1.20	1.14	1.01	1.08	1.23	1.33	1.27
CENTRAL MACEDONIA	0.96	0.95	0.97	0.96	0.95	0.94	0.96	0.94	0.95	0.96	0.96	0.94	1.03	1.24	1.18	0.93	0.85	0.96
EASTERN MACEDONIA & THRACE	0.82	0.84	0.83	0.81	0.82	0.80	0.81	0.84	0.83	0.82	0.83	0.81	1.01	0.90	0.83	0.80	0.70	0.73
EPIRUS	0.89	0.88	0.84	0.88	0.87	0.91	0.90	0.87	0.84	0.90	0.89	0.94	0.86	1.02	0.82	0.66	0.63	0.68
WESTERN GREECE	0.84	0.84	0.79	0.79	0.81	0.83	0.84	0.83	0.79	0.79	0.81	0.80	0.83	1.02	0.92	0.73	0.73	1.03
THESSALY	0.78	0.83	0.82	0.78	0.80	0.82	0.78	0.82	0.81	0.78	0.78	0.80	0.97	1.00	1.03	0.75	1.01	0.97
PELOPONNESE	0.69	0.71	0.68	0.73	0.74	0.78	0.68	0.71	0.67	0.74	0.73	0.78	0.83	0.81	0.74	0.63	0.78	0.72
WESTERN MACEDONIA	0.88	0.88	0.88	0.93	0.91	0.90	0.88	0.87	0.88	0.89	0.90	0.91	1.00	1.03	0.89	1.38	1.05	0.90
CENTRAL GREECE	0.89	0.91	0.90	0.93	0.88	0.83	0.89	0.90	0.90	0.92	0.90	0.82	0.77	1.08	0.86	1.00	0.66	0.90
IONIAN ISLANDS	0.74	0.79	0.79	0.77	0.76	0.83	0.73	0.79	0.80	0.72	0.76	0.87	0.89	0.62	0.54	1.35	0.68	0.47
SOUTH AEGEAN	0.90	0.89	0.96	0.96	0.99	0.92	0.90	0.90	0.97	1.00	1.04	0.97	0.77	0.81	0.79	0.44	0.52	0.51
NORTH AEGEAN	0.80	0.91	0.93	0.85	0.89	0.83	0.81	0.94	0.96	0.89	0.93	0.89	0.62	0.48	0.53	0.49	0.45	0.37
CRETE	0.89	0.88	0.90	0.85	0.86	0.98	0.89	0.89	0.89	0.82	0.84	0.99	0.85	0.77	0.99	1.15	1.08	0.90
NATIONAL	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

	Waged employment as a proportion of all employment						Full-time waged employment as a proportion of all employment						Part-time waged employment as a proportion of all employment					
	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016
ATTICA	78.0%	78.0%	78.2%	77.8%	77.3%	79.9%	74.6%	74.9%	74.2%	71.4%	69.7%	70.5%	3.4%	3.1%	3.9%	6.4%	7.5%	9.3%
CENTRAL MACEDONIA	61.8%	62.0%	62.6%	60.5%	59.7%	61.9%	58.7%	58.2%	58.3%	55.7%	54.8%	54.8%	3.1%	3.9%	4.3%	4.9%	4.8%	7.1%
EASTERN MACEDONIA & THRACE	52.4%	54.8%	53.8%	51.6%	51.6%	52.5%	49.4%	52.0%	50.8%	47.4%	47.6%	47.2%	3.0%	2.8%	3.0%	4.2%	4.0%	5.4%
EPIRUS	57.3%	56.9%	54.3%	55.6%	54.6%	59.8%	54.7%	53.8%	51.3%	52.1%	51.0%	54.8%	2.5%	3.2%	3.0%	3.4%	3.6%	5.0%
WESTERN GREECE	54.0%	54.4%	51.4%	49.8%	50.9%	54.6%	51.5%	51.2%	48.0%	46.0%	46.7%	47.0%	2.5%	3.2%	3.3%	3.8%	4.2%	7.6%
THESSALY	50.2%	54.0%	53.2%	49.3%	50.7%	53.8%	47.3%	50.8%	49.5%	45.3%	44.9%	46.7%	2.9%	3.1%	3.7%	3.9%	5.7%	7.1%
PELOPONNESE	44.0%	46.2%	43.7%	46.6%	46.5%	51.2%	41.5%	43.7%	41.0%	43.3%	42.1%	45.9%	2.5%	2.5%	2.7%	3.3%	4.4%	5.3%
WESTERN MACEDONIA	56.6%	57.1%	56.8%	58.6%	57.4%	59.6%	53.6%	53.9%	53.6%	51.5%	51.5%	53.0%	3.0%	3.2%	3.2%	7.2%	5.9%	6.6%
CENTRAL GREECE	56.7%	59.1%	57.9%	58.8%	55.6%	54.8%	54.4%	55.8%	54.8%	53.6%	51.8%	48.1%	2.3%	3.4%	3.1%	5.2%	3.7%	6.7%
IONIAN ISLANDS	47.1%	51.1%	51.0%	48.9%	47.6%	54.5%	44.5%	49.2%	49.1%	41.9%	43.7%	51.1%	2.7%	1.9%	2.0%	7.0%	3.9%	3.5%
SOUTH AEGEAN	57.4%	58.1%	62.1%	60.6%	62.3%	60.7%	55.1%	55.6%	59.2%	58.3%	59.4%	56.9%	2.3%	2.5%	2.9%	2.3%	3.0%	3.7%
NORTH AEGEAN	51.2%	59.4%	60.4%	54.1%	55.9%	54.9%	49.3%	57.9%	58.4%	51.6%	53.4%	52.2%	1.8%	1.5%	1.9%	2.5%	2.5%	2.7%
CRETE	56.9%	57.2%	58.3%	53.8%	54.2%	64.4%	54.4%	54.8%	54.7%	47.9%	48.1%	57.8%	2.5%	2.4%	3.6%	6.0%	6.1%	6.7%
NATIONAL	**64.0%**	**65.0%**	**64.7%**	**63.4%**	**63.0%**	**65.9%**	**61.0%**	**61.9%**	**61.1%**	**58.2%**	**57.3%**	**58.5%**	**3.0%**	**3.1%**	**3.6%**	**5.2%**	**5.7%**	**7.4%**

Source: authors' compilation based on HELSTAT statistics for the respective years

In considering the growth of different elements of the reserve army of labour, Tables II.1, II.2, and II.3 collectively show that extreme values (whether high or low) in unemployment rates and total waged employment LQs were not necessarily spatially coincident. Moreover, there are no signs that part-time waged employment's expansion has limited unemployment's growth, as many regions that exhibited notable 2005–16 increases in part-timerism also saw unemployment rates mushroom (e.g., Attica, Central Macedonia, Crete, and Western Greece). On the other hand, those tourist regions which experienced less growth in part-timerism generally coped with unemployment much better than did other Greek regions, especially the metropolitan ones. This suggests that the degree of total and part-time waged employment was not the dominant shaper of unemployment levels before the crisis struck and that other factors—like an overconcentration of obsolete production models (e.g., the weak agro-industry and industrial structures) or being a region where construction activities stalled (like in Central Macedonia)—were more significant. Most importantly, the data reveal a striking vulnerability of both metropolitan regions' economic structures, as they experienced profound losses of typical employment during 2009–12 and their subsequent recovery is questionable—Attica's has been rather anaemic whilst Central Macedonia's has been accompanied by skyrocketing underemployment. This finding is important in light of the argument that metropolitan regions are supposedly more capable of resisting precarity than are non-metropolitan ones.

Table II.3: Rate and percentage changes in unemployment, all regions and Greece, 2005-2016

	Unemployment rate						**Unemployment change (%)**		
	2005	*2008*	*2009*	*2012*	*2013*	*2016*	*2005-08 (%)*	*2009-12 (%)*	*2013-16 (%)*
ATTICA	9.1%	6.7%	9.1%	25.8%	28.7%	23.0%	-25.2%	175.3%	-23.1%
CENTRAL MACEDONIA	11.2%	8.4%	10.1%	26.2%	30.2%	24.5%	-24.1%	152.0%	-16.0%
EASTERN MACEDONIA & THRACE	11.9%	8.8%	11.1%	22.8%	26.8%	22.8%	-27.6%	101.4%	-13.5%
EPIRUS	11.5%	9.9%	11.2%	22.5%	27.4%	24.3%	-10.9%	92.4%	-12.5%
WESTERN GREECE	10.7%	9.9%	9.7%	25.6%	28.4%	29.8%	-6.5%	152.8%	8.9%
THESSALY	9.4%	8.3%	9.2%	22.6%	25.4%	25.5%	-12.1%	134.0%	-0.7%
PELOPONNESE	8.6%	7.0%	7.9%	19.2%	21.9%	19.2%	-15.0%	128.8%	-13.2%
WESTERN MACEDONIA	18.1%	12.5%	12.4%	29.7%	31.6%	31.3%	-31.0%	124.5%	3.7%
CENTRAL GREECE	11.0%	8.5%	10.5%	27.9%	28.2%	25.0%	-22.6%	165.2%	-11.5%
IONIAN ISLANDS	8.6%	8.3%	9.5%	14.7%	18.1%	16.0%	0.0%	51.1%	-13.3%
SOUTH AEGEAN	9.5%	8.3%	12.3%	15.4%	21.3%	17.4%	-10.1%	24.0%	-17.5%
NORTH AEGEAN	10.6%	4.7%	6.6%	21.8%	22.0%	18.3%	-58.3%	270.0%	-18.5%
CRETE	7.2%	6.4%	9.0%	22.3%	24.9%	22.6%	-9.7%	140.1%	-9.7%
NATIONAL	**10.0%**	**7.8%**	**9.6%**	**24.4%**	**27.5%**	**23.5%**	**-21.4%**	**146.6%**	**-15.0%**

Source: authors' compilation based on HELSTAT statistics for the respective years

Waged employment in Attica and Central Macedonia

Table II.2 shows that both Attica's and Central Macedonia's LQs for total waged and full-time waged employment changed little over time, meaning that they retained their waged employment importance relative to other regions, even though both lost larger proportions of these types of employment than did the country as a whole between 2009 and 2012 (Table II.1). However, examination of sectoral LQs for these two regions (Table II.4) shows that several sectors had quite different experiences locally compared to their national trajectories. For instance, in Attica the knowledge economy and commerce saw their full-time waged employment LQs rise between 2005 and 2016, mainly because they registered smaller amounts of job loss than the national average. These three sectors' experiences confirm the capital's role as a commercial and scientific hub and a transportational center. By way of contrast, construction experienced a deeper relative collapse in employment than nationwide, reflected in a notable LQ decline. Meanwhile, although manufacturing began to lose thousands of jobs in Attica (and nationwide) after 2005, its Attica LQ only decreased after 2009, a reflection of the sector's spatially concentrated character. Leisure and arts also saw a significant LQ decline after 2009.

On the other hand, Central Macedonia presented clear signs of (a growing) overconcentration in total and full-time waged employment in manufacturing as the crisis deepened after 2009, largely because although employment fell in this sector it did so at a slower pace than nationally. Agriculture also showed increasing LQs between 2012 and 2016 in total and full-time waged employment, indicating that Central Macedonia's agro-industrial model, despite having shown signs of stress before the 2008 recessive shocks, experienced a stronger recovery after 2012 than elsewhere. However, construction LQ values and numbers dropped dramatically for both total waged and full-time waged employment (especially between 2009 and 2012), as did LQs for leisure and arts. Overall, then, both metropolitan regions saw declining relative concentrations in leisure and arts and construction, employment resilience in public administration, and a general decline in LQs across several sectors, reflecting a greater-than-national-average deterioration of waged employment. But there are also some noticeable differences. For instance, whereas full-time waged employment LQs for manufacturing increased in Central Macedonia and fell for commerce and the knowledge economy between these years, the reverse was true for Attica.

Turning to part-time waged employment, Attica and Central Macedonia both experienced noticeable increases in the proportion of waged workers employed part-time, though at different moments (Table II.4). In Attica, part-timerism increased 120% between 2005 and 2016, a larger increase than for the nation as a whole. Hospitality and commerce stand out—these sectors already had high numbers of part-timers but saw a sharp expansion thereof between 2005 and 2016.[40] In public administration, though, such trends appeared only after 2013. Construction and manufacturing experienced dramatic declines in full-time waged employment between 2005 and 2016 but a profound growth in part-time waged employment. Similar trends are evident in leisure and arts, with full-time waged employment dropping 54.7% but part-timerism growing 23.1%, with such growth taking place after 2013. Although Attica had high part-time waged work LQs in the leisure and arts, knowledge economy, and construction sectors during most of the 2005 to 2016 period (Table II.5), these values were quite variable year-to-year, probably because they contain relatively small numbers of workers in waged part-time employment.

[40] Although agriculture and energy and resources also had significant percentage increases in part-timerism, the absolute number of workers in these sectors is quite small.

Table II.4: Comparison of full-time and part-time waged job gains/losses (%) for all of Greece, Attica, and Central Macedonia, by sector, 2005-2016

Full-time Waged Employment	**GREECE**				**ATTICA**				**CENTRAL MACEDONIA**			
	2005-08	*2009-12*	*2013-16*	*2005-16*	*2005-08*	*2009-12*	*2013-16*	*2005-16*	*2005-08*	*2009-12*	*2013-16*	*2005-16*
1. Agriculture	7.1%	-5.2%	6.3%	29.0%	29.8%	-23.9%	66.7%	46.4%	2.5%	-29.8%	41.4%	46.4%
2. Manufacturing	-4.8%	-36.2%	16.8%	-39.4%	-1.8%	-41.3%	19.4%	-45.3%	-10.0%	-39.5%	26.6%	-39.1%
3. Energy and resources	59.7%	-19.5%	3.7%	27.1%	68.0%	-28.5%	27.5%	39.4%	163.3%	-6.8%	-25.0%	63.8%
4. Construction	12.9%	-59.7%	-2.5%	-70.1%	5.9%	-64.8%	11.7%	-73.4%	26.2%	-69.0%	-0.1%	-74.5%
5. Commerce, transportation and communications	7.7%	-20.2%	6.8%	-12.4%	8.6%	-17.7%	3.6%	-12.2%	7.2%	-26.1%	9.4%	-14.9%
6. Hotel, food and catering	6.0%	-22.3%	34.1%	4.9%	15.4%	-30.8%	36.2%	-1.9%	1.7%	-24.9%	21.9%	-5.1%
7. Knowledge economy	6.7%	-11.9%	4.9%	-14.5%	7.8%	-11.5%	1.0%	-16.0%	-10.5%	3.0%	2.9%	-23.2%
8. Public administration, healthcare and education	5.5%	-10.9%	1.7%	-8.2%	1.5%	-10.1%	-0.9%	-12.4%	6.0%	-8.6%	13.5%	1.1%
9. Leisure, arts and NRA services	-7.4%	-31.9%	-3.0%	-46.9%	-5.5%	-39.6%	-10.4%	-54.7%	-17.2%	-20.0%	-19.0%	-51.5%
Overall change	**5.2%**	**-22.8%**	**6.8%**	**-20.7%**	**4.9%**	**-24.1%**	**4.9%**	**-24.5%**	**3.0%**	**-24.0%**	**11.7%**	**-21.1%**

Part-time Waged Employment	**GREECE**				**ATTICA**				**CENTRAL MACEDONIA**			
	2005-08	*2009-12*	*2013-16*	*2005-16*	*2005-08*	*2009-12*	*2013-16*	*2005-16*	*2005-08*	*2009-12*	*2013-16*	*2005-16*
1. Agriculture	15.0%	-1.1%	-8.5%	42.7%	282.3%	1.7%	57.3%	551.4%	-79.2%	275.3%	54.8%	25.3%
2. Manufacturing	3.2%	84.2%	9.8%	156.9%	16.4%	165.0%	-3.3%	226.7%	-1.0%	-9.0%	75.5%	89.8%
3. Energy and resources	962.6%	13.2%	-12.2%	284.0%	0.0%	99.8%	3.7%	21745.5%	42205.5%	-92.4%	-99.0%	0.0%
4. Construction	17.9%	86.7%	5.4%	172.7%	24.8%	146.8%	-19.0%	233.5%	108.1%	-39.9%	99.2%	675.1%
5. Commerce, transportation and communications	13.5%	50.6%	40.0%	195.7%	12.5%	68.4%	41.8%	240.3%	15.4%	1.6%	53.9%	129.6%
6. Hotel, food and catering	1.2%	24.6%	90.7%	235.7%	-9.1%	24.6%	61.1%	234.8%	9.5%	48.0%	118.2%	274.0%
7. Knowledge economy	14.7%	15.6%	34.3%	131.7%	-28.8%	42.2%	11.3%	81.0%	140.8%	-0.9%	104.0%	301.5%
8. Public administration, healthcare and education	8.3%	-8.8%	40.9%	26.6%	1.1%	-6.5%	60.3%	53.9%	22.2%	3.0%	-2.5%	-12.8%
9. Leisure, arts and NRA services	-0.4%	-18.9%	8.3%	21.0%	-13.4%	-19.5%	4.7%	23.1%	43.6%	-59.2%	80.1%	15.3%
Overall change	**8.7%**	**16.7%**	**35.5%**	**104.9%**	**-3.0%**	**29.3%**	**28.3%**	**120.0%**	**30.7%**	**-9.5%**	**63.2%**	**95.2%**

Source: authors' compilation based on HELSTAT statistics for the respective years

Table II.5: LQ index by sector for total, full-time, and part-time waged employment, Attica and Central Macedonia, 2005-2016

ATTICA	**Total waged employment LQ**						**Full-time waged employment LQ**						**Part-time waged employment LQ**					
Sector	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016
1. Agriculture	0.17	0.22	0.18	0.15	0.14	0.22	0.18	0.22	0.18	0.15	0.14	0.22	0.05	0.19	0.14	0.13	0.12	0.22
2. Manufacturing	0.92	0.96	0.98	0.93	0.85	0.87	0.92	0.95	0.98	0.92	0.84	0.87	0.76	0.96	0.89	1.16	0.97	0.90
3. Energy and resources	0.81	0.84	0.81	0.73	0.74	0.93	0.81	0.86	0.81	0.73	0.75	0.94	0.00	0.00	0.36	0.57	0.59	0.73
4. Construction	0.92	0.87	0.88	0.86	0.84	0.89	0.92	0.86	0.87	0.78	0.73	0.86	0.89	1.05	1.10	1.31	1.25	1.01
5. Commerce, transportation and communications	1.15	1.16	1.15	1.19	1.20	1.19	1.15	1.16	1.15	1.21	1.23	1.21	1.00	1.11	0.99	1.00	1.00	1.07
6. Hotel, food and catering	0.79	0.85	0.87	0.80	0.80	0.80	0.78	0.85	0.86	0.78	0.74	0.76	0.96	0.96	0.95	0.86	1.00	0.89
7. Knowledge economy	1.33	1.33	1.29	1.32	1.37	1.33	1.33	1.34	1.30	1.33	1.40	1.37	1.38	0.96	1.07	1.19	1.15	1.00
8. Public administration, healthcare and education	0.89	0.86	0.88	0.89	0.89	0.90	0.89	0.85	0.87	0.90	0.89	0.89	0.93	0.97	0.93	0.86	0.88	1.05
9. Leisure, arts and NRA services	1.24	1.24	1.24	1.13	1.18	1.13	1.26	1.28	1.26	1.13	1.19	1.12	1.18	1.15	1.25	1.12	1.09	1.12

CENTRAL MACEDONIA	**Total waged employment LQ**						**Full-time waged employment LQ**						**Part-time waged employment LQ**					
Sector	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016	2005	2008	2009	2012	2013	2016
1. Agriculture	0.87	0.80	0.94	0.79	0.76	0.97	0.91	0.89	1.03	0.78	0.81	1.04	0.50	0.08	0.18	0.88	0.33	0.46
2. Manufacturing	1.34	1.28	1.23	1.18	1.29	1.35	1.34	1.30	1.23	1.19	1.31	1.35	1.69	1.35	1.52	0.97	0.99	1.31
3. Energy and resources	0.59	0.99	0.81	0.90	1.11	0.75	0.59	0.99	0.78	0.92	1.10	0.76	0.00	1.17	2.07	0.18	1.01	0.00
4. Construction	0.90	1.02	0.96	0.70	0.76	0.81	0.91	1.04	0.97	0.75	0.80	0.78	0.31	0.45	0.99	0.41	0.59	0.92
5. Commerce, transportation and communications	0.96	0.97	1.02	0.96	0.96	0.94	0.95	0.97	1.02	0.96	0.95	0.93	1.19	1.00	1.07	0.93	1.06	0.97
6. Hotel, food and catering	0.90	0.88	0.82	0.86	0.96	0.88	0.90	0.88	0.83	0.81	0.94	0.81	0.92	0.83	0.73	1.12	1.14	1.08
7. Knowledge economy	0.90	0.81	0.82	0.97	0.89	0.88	0.90	0.77	0.81	0.96	0.87	0.82	0.75	1.31	1.10	1.21	1.08	1.36
8. Public administration, healthcare and education	0.98	1.00	1.01	1.08	1.03	1.05	0.97	1.00	1.02	1.06	1.01	1.08	1.03	0.97	1.00	1.46	1.30	0.75
9. Leisure, arts and NRA services	0.90	0.91	0.93	0.94	0.92	0.86	0.88	0.80	0.86	1.02	1.01	0.81	0.98	1.17	1.03	0.67	0.71	0.98

Source: authors' compilation based on HELSTAT statistics for the respective years

Central Macedonia, however, exhibited tendencies towards greater labour flexibilization even before the crisis's onset, a trend which continued after 2013—part-timerism increased 30.7% between 2005 and 2008, declined slightly between 2009 and 2012 (contrasting changes in Attica and nationally) as all types of waged employment in the region largely collapsed, and grew 63.2% after 2013 (Table II.4). As in Attica, commerce and hospitality saw notable increments in absolute numbers, especially after 2012. Meanwhile, although the number of part-time workers in the knowledge economy and leisure and arts sectors was fairly small, both sectors experienced early flexibilization (prior to 2009), then a period of deflexibilization during the early crisis period (2009–12) as the proportion of their labour forces employed part-time fell, followed by a resumption of growth in part-timerism. Examination of LQs shows that manufacturing was the sector at the epicenter of the region's early flexibilization (the LQ of 1.69 indicates a significant overconcentration of part-time waged work [Table II.5]), with such flexibilization occurring in Central Macedonia before it did in Attica and the rest of the country. Central Macedonia also saw higher concentrations of part-time waged employment relative to Greece as a whole in hospitality (especially after 2012) and public administration (mainly during 2012 and 2013).

Above, then, we have offered some insights into the impacts of the 2008 recession and its aftermath on Greece's employment patterns and the growth of the reserve army of labour through the replacement of full-time with part-time employment. In summary, our analysis reveals three important points. First, Attica's overall economic mix did not differ that much after the crisis compared to what it had been before, although employers generally turned to part-time workers more regularly than did Central Macedonia's. Second, the two regions experienced the crisis's unfolding in quite different ways. Central Macedonia's growing flexibilization began prior to the crisis's eruption—between 2005 and 2008 part-timerism grew more than three times the Greek average, even as it decreased in Attica by 3.0%. However, whilst part-timerism was growing in Greece and Attica between 2009 and 2012 it declined in Central Macedonia [Table II.4]). In addition, several sectors (most notably leisure and arts and the knowledge economy) showed clear signs of labour market *deflexibilization* (i.e., a reduction in part-timerism) within an environment of overall full-time waged employment's collapse, which was not the case for any sector in Attica. Third, and relatedly, in Central Macedonia total waged employment showed signs of a mild recovery after 2013, although this was mainly due to the skyrocketing of part-time work (full-time waged employment receded to a greater extent than it did nationally), rendering the transformation of the region more profound than Attica's. These differences are perhaps not surprising, given that Attica is home to the capital, with its more dynamic economy, whilst Central Macedonia has historically been characterized by greater reliance upon primary sector activities and low value-added manufacturing and agro-processing. But they do indicate that there is no common experience across these metropolitan regions' sectors with regard to the reserve army of labour's expansion, at least as measured in terms of the growth of part-time waged work. This suggests that, *contra* arguments that a region's metropolitan status *per se* makes it more resistant to pressures towards greater precarity, in fact other factors prove more significant—such as the regional spatial division of labour and transformations in the nature of work in specific sectors, plus local particularities and how regions fit into broader networks of production (Gialis, Gourzis, and Underthun 2017).

Discussion: Underemployment's expansion and the Greek regions' shift to employment devaluation and precarity

During the past decade, several crucial developments have had considerable impacts upon local labour markets across Europe, but especially in the European South. Frequently, problems of rising unemployment and underemployment have been attributed to labour markets' lack of flexibility. However, such accounts ignore history, as labour markets in the EU South have long abounded with unorthodox and flexible work arrangements, including solo self-employment, seasonal labour, and part-time arrangements, which all existed in Greece before the 2008 economic crisis's emergence. Instead, other factors, such as high labour costs and distance from crucial commodity markets, rendered the country vulnerable to recessive shocks (Mavroudeas 2014), as evidenced by the fact that the Greek labour market has undergone *multiple* phases of restructuring since 2009 as the mild expansionary trends of 2005–08 gave way to a bleaker reality of diminished total employment, dissolved collective labour agreements, sinking median wages, and an expansion of uninsured labour (Hadjimichalis 2011; Psycharis, Kallioras, and Pantazis 2014).

As indicated in our research, during the crisis period total employment shrank sharply and unemployment rates increased in all regions. Although rising unemployment rates are one measure of the intensity of any recession, they alone are not sufficient indicators of the crisis's overall spatial aspect, nor of the regional disadvantages it revealed, as other studies have also pointed out (e.g., Green and Livanos 2016 for the UK). Instead, we believe that a more nuanced understanding of the crisis's spatiality and impact upon diverse local labour markets requires also looking at the spread of precarious work, an important form of which (part-time waged work) expanded significantly, in some cases rapidly. In this regard, we believe that our analysis of the growth of part-time work contributes in several ways to a better understanding of the crisis's geographical nature.

First, our analysis shows that during the pre-crisis period the Greek labour market exhibited (often quite significant) employment growth in all regions, and employer efforts to reduce labour costs only really became evident after 2009, when part-timerism and unemployment grew. Under these conditions, the only regions that managed to maintain any significant portion of their pre-crisis workforce numbers were some of the island ones, although not all avoided growing flexibilization. These regions—namely the "sun and sand"-oriented South Aegean and Ionian Islands, plus the North Aegean—were the only ones that limited the expansion of the part-time waged employment that erupted in other regions during the 2009-16 period. They were also the only ones to boast mild absolute increases in full-time waged employment and, alongside Western Macedonia, were the most effective in containing unemployment (ELSTAT 2018). The end result was clearly more flexibilized labour markets nationwide, a flexibility which came hand-in-hand with a general decline in employment quality, as many private-sector part-timers were paid salaries considerably lower than the official unemployment compensation—around 550 euros per month, gross (Ergani 2016; INE 2016).

Within an environment of capital devaluation, these expanding segments of reserve labour opened the way for reduced labour costs and prospects for enhanced profits, as average wages dropped. This is true even in sectors (such as hospitality) which did not experience a profound crisis but underwent labour devaluation nonetheless, even as regions with concentrations of employment in such sectors (like the tourism-based ones) presented an enhanced resilience in terms of employment numbers (ELSTAT 2018; Table II.1). The inconsistencies between performance and slashed labour costs within specific sectors show that labour devaluation has largely proceeded in response to the instability of collective agreements and lack of employment protection provisions (e.g., against dismissal), as well as other wage-bargaining mechanisms (Matsaganis 2011). Thus, the existence and consolidation of reserve labour armies created the conditions for a further degradation of regional labour markets—in the metropolitan regions in particular, the compounding effect of having large amounts of already underemployed labour has led to a stark and disproportionate growth of atypical and precarious employment, as further discussed below. These findings challenge accounts based on research elsewhere (e.g., Peck and Theodore 2000) which suggest that employer shifts to waged part-time employment may limit unemployment's growth—in Attica between 2009 and 2012 part-timerism's growth was actually concurrent with a substantial increase in unemployment (unemployment increased 175.3% [Table II.3] and part-timerism increased by 29.3% [Table II.4]).

Second, whereas full-time waged employment generally followed total waged employment trends, there was much greater geographical and sectoral variation in the rise of underemployment, especially after the crisis's emergence—patterns of waged part-time work appeared much more variable and were characterized by sharper changes and greater spatial disequilibrium. The capital region was among the most vulnerable to its penetration, as underemployment expanded particularly in sectors like manufacturing, commerce, construction, and hospitality (Table II.4). Central Macedonia saw underemployment also grow significantly in the latter two as well as in the knowledge economy and commerce. The manufacturing regions both saw their shares of employment that is part-time waged work more than double between 2005 and 2012, whilst agricultural regions also registered large proportionate increases (Table II.2). The most striking case, though, was that of the Ionian Islands, where underemployment increased dramatically in hospitality and in leisure and arts during 2009–12 (ELSTAT 2018). Tourism-oriented Crete also saw a growth in part-time waged work, both in the hospitality-related sectors but also in construction and commerce. Overall, underemployment's expansion was wide but asymmetrical, meaning that pools of reserve labour have been forming in all Greek regions but at different paces, depending upon the sectoral structure and local particularities of each (Gialis, Gourzis, and Underthun 2017). What these results collectively suggest, then, is that what rendered the Greek regions vulnerable to the spread of underemployment was not, as often claimed by EU officials, their possessing inflexible labour markets that needed to be made more flexible but, rather, their high level of embeddedness in international (EU-wide and global) circuits of capital which tied various regions into broader crises of capital accumulation. Many of the commercial and manufacturing firms within Greece, for instance, are multinationals that have been at the forefront of imposing highly flexible employment practices upon domestic labour markets, as in the case of big retailers hiring part-timers to cover seasonal peaks (Gialis and Leontidou 2014). Equally, the island regions' economies are decidedly oriented towards the international arena (mainly tourism) and show high levels of labour flexibilization (Psycharis, Kallioras, and Pantazis 2014) because the large (typically foreign) firms which dominate the industry rely upon thousands of seasonal/short-term workers during the industry's high season, workers who are then laid off when the tourists dry up. Significantly, despite heavy part-timerism in this sector, hospitality was one of the few sectors that saw full-time waged employment grow between 2005 and 2016, especially after 2013 (Table II.4). The overall expansion of waged employment (both part and full-time) indicates a degree of resilience, as Greece consolidated its position as a destination of international tourists, despite (or even due to) the general economic collapse.

At the sectoral level, waged underemployment expanded at the expense of full-time waged employment in virtually all cases—the only sectors that maintained somewhat of a pre-crisis balance were the public sector (where a large number of part-timers were laid off, but underemployment gained ground after 2013) and in the agricultural sector (where atypicality is manifested in types of employment other than waged employment). Between 2009 and 2012 construction faced an almost total full-time waged employment collapse across Greece and in Attica and Central Macedonia, whilst manufacturing lost over one-third of its full-time waged jobs, with the two metropolitan regions seeing even higher losses (Table II.4). At the same time, these sectors saw significant increases in waged part-timerism across Greece and Attica, though Central Macedonia saw declines. Similar declines in full-time waged employment, though less extreme, also took place between 2009 and 2012 in commerce, hospitality, and leisure and arts nationally and in the metropolitan regions, whilst part-time waged work grew in commerce and hospitality (but not leisure and arts) nationally and Attica and Central Macedonia. Given that employment norms and practices in Greece have been aligning with EU regulations for over three decades, such growth of part-time work shows that arguments suggesting that the domestic labour market is overly inflexible are largely myth. Indeed, combined with widespread traditional non-typical employment like solo self-employment or working in family businesses, Greece has actually long had a mix of traditional and "EU-conventional" flexible labour structures.

Third, and most importantly, our analysis reveals a greater than average loss of total and waged employment in Attica and Central Macedonia between 2009 and 2012 (Table II.1). However, whereas in the capital region widespread job loss coincided with rapid flexibilization, this was not the case in Central Macedonia, where the later recessive period (2013–16) found a notable waged employment recovery being overshadowed by a simultaneous and disproportionate swelling of waged underemployment (Table II.4). Our findings highlight an ongoing crisis in the capital region, as the explosion of activity in the construction-oriented economy that flourished in the post-Olympics period of economic expansion was quickly followed by the bursting of the housing bubble that brought the construction sector to its knees and which had impacts across the whole of Greece—although one of the fastest growing sectors prior to the crisis, construction was remarkably vulnerable afterwards. Additionally, turbulence in the banking sector, especially the cutting of crucial flows of credit to industrial-related activities, affected the metropolitan regions profoundly (Gialis, Gourzis, and Underthun, 2017; Mavroudeas, 2014). Manufacturing had also shown signs of distress before the crisis emerged (Table II.4), with full-time waged employment volumes shrinking between 2005 and 2008 as the low value-added and outdated specializations which characterized (and still do) Greece's industrial production model proved less and less able to compete (Polyzos, Tsiotas, and Sdrolias 2013, Psycharis, Kallioras, and Pantazis 2014). This certainly affected Greece's two major manufacturing regions (Western Macedonia and Central Greece) but it also had significant impacts upon the two metropolitan regions—full-time waged employment in manufacturing was almost halved between 2005 and 2016 (this decline came entirely before 2012). Lastly, another predominantly urban sector, that of leisure and arts, gradually turned into a subsidiary services-related sector, covering activities such as entertainment and services paid by households (cleaning, baby-sitting, home education, etc.) that became something of a luxury during the crisis years. However, whereas full-time waged employment in the sector had already started declining nationally before 2009, in the case of Central Macedonia there were signs of *de*flexibilization from 2009 to 2012, unlike in Attica where part-time employment grew as a proportion of all employment in the sector as full-time waged employment collapsed there. In sum, both metropolitan regions have been vulnerable to underemployment's penetration, but this spread was initiated at different times (in Central Macedonia it was mainly prior to the crisis and in its second phase, whilst in Attica it was principally during its first phase). Such differences reflect their distinct economic structures—whereas the capital region leads in employment in the "new economy" sectors of the knowledge economy and commerce (with the latter underscoring the pivotal role played by Athens/Attica in organizing flows of goods and information within the country and abroad), Central Macedonia is more dominated by "traditional economy" sectors, such as agro-processing activities, increasingly obsolete industries, and (lately) high concentrations of public sector employment, alongside concentrated tourism-related activities, mainly located in the Halkidiki peninsulas.

Ultimately, our findings suggest that rather than highlighting metropolitan regions' resilience, the crisis struck them heavily. Recessive shocks after 2008 did not widen the core-periphery gaps in the manner suggested by the literature—a gap between resilient labour markets in the metropolises and lagging ones in the periphery (see Martin, Sunley, Gardiner, and Tyler 2016). Instead, it narrowed them. More specifically, whereas authors like Green and Livanos (2015) and Cuadrado-Roura and Maroto-Sanchez (2016) have suggested that whilst large urban agglomerations may not be able to limit their unemployment growth during recession their stronger economies do nevertheless boast better results overall, especially regarding labour underutilization, our findings show that not only did Greece's metropolitan regions fail to constrain underemployment and unemployment, but they also lost large parts of their productive capacity (both saw declines in their regional gross domestic product and gross added value [ELSTAT 2018]). Although there are clearly still inequalities present in contemporary Greece, underemployment's expansion was principally seen not in the periphery but in the core, the result of both the metropolitan areas' sectoral mixes and because specific sectors performed considerably worse there than elsewhere (see Polyzos, Tsiotas, and Sdrolias 2013; Kallioras, Tsiapa, and Zapantis 2016; Rodríguez-Pose, Psycharis, and Tselios 2012). What our analysis suggests, then, is that the seeds of flexible and atypical labour were planted in the Greek labour market well before the crisis emerged, a finding in stark contrast to official EU accounts that have long categorized Southern labour markets as "rigid and inflexible" (Nickel 1997). Atypical and flexible work further expanded greatly—in a geographically uneven manner—during the recession (Gialis and Leontidou 2014), which hit all Greek regions with remarkable intensity, effectively blunting regional inequalities. These pressures also played out in the political realm, leading the EU, International Monetary Fund, and Greek state to impose a series of regulatory reforms which further increased precarity by, amongst other things, making it easier to dismiss workers so as to encourage flexibility[41]. As a result, several thousand contracts were converted from full- to part-time work after "mutual" employer-employee agreement (Ergani 2016; INE 2016).

Significantly, post-crisis patterns illustrate the shift in many regional labour markets—even the "resilient ones"—toward larger shares of waged underemployment, in a context of employment devaluation in all sectors and of a downwards convergence amongst Greek regions. These trends point to the increasing presence of an industrial reserve army, especially in large urban agglomerations.

[41] For example, law 3846/2010 gave firms experiencing adverse financial and economic conditions added abilities to impose "alternate work" schemes by distributing reduced capacity among their existing workers and reducing work hours and remuneration levels.

Made up of people who have lost their jobs thanks to cost reductions and who are typically informally recruited, underemployed micro-entrepreneurs (e.g., small manufacturers or shopkeepers) whose activities have been marginalized by devalorization and intense competition, and all poorly and underpaid workers, these pools of reserve labour now sometimes comprise more than half of the economically active population (Gialis and Leontidou 2014). The growth of this reserve army of labour favors collective capitalist interests, raising fears amongst those workers who still have a typical job that they are easily dispensable. Its existence thereby encourages such workers' acceptance of the further spread of precarious work for fear of the alternatives.

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ANNEX III: Templates of Questionnaires (in Greek)

Questionnaire for Workers

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΠΡΟΣ ΕΡΓΑΖΟΜΕΝΟ

Η έρευνα αυτή έχει σκοπό τη μελέτη της εξάπλωσης του εξευγενισμού και της πρακτικής του Airbnb στις γειτονιές της Αθήνας, και την επίπτωσή τους στις τοπικές αγορές εργασίας. Ο χαρακτήρας της έρευνας είναι καθαρά ακαδημαϊκός και τα ερωτηματολόγια που δίνονται είναι αυστηρά ανώνυμα.

Ο εξευγενισμός είναι ένα φαινόμενο που σχετίζεται με αναβαθμίσεις του δημοσίου χώρου, αύξηση ενοικίων, και εισροή νέων κατοίκων στη γειτονιά. Το Airbnb αποτελεί μια πλατφόρμα επικοινωνίας μεταξύ ιδιοκτητών και ενοικιαστών, με σκοπό την κατά κανόνα μικρής διάρκειας ενοικίαση των ακινήτων/διαμερισμάτων των πρώτων.

ΑΦΟΥ ΣΥΜΠΛΗΡΩΘΕΙ ΤΟ ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ, ΠΑΡΑΚΑΛΩ ΑΠΟΣΤΕΙΛΕΤΕ ΤΟ ΣΤΟ EMAIL ΠΟΥ ΑΝΑΦΕΡΕΤΑΙ ΣΤΟ ΚΑΤΩ ΔΕΞΙΑ ΜΕΡΟΣ ΚΑΘΕ ΣΕΛΙΔΑΣ!

Ποια είναι η ηλικία σας (υπογραμμίστε μία από τις παρακάτω επιλογές):

(18-25) (26-35) (36-45) (46-60) (61-70) (>70)

Επίπεδο εκπαίδευσης (υπογραμμίστε μία από τις παρακάτω επιλογές):

(δημοτικό) (γυμνάσιο/λύκειο) (προπτυχιακό ΑΕΙ/ΤΕΙ) (Μεταπτυχιακό) (Διδακτορικό/Ανώτερη)

Σε ποια περιοχή εργάζεστε; (συμπληρώστε περιοχή και όχι διεύθυνση) ___________________________________

Τύπος επιχείρησης που εργάζεστε: ____

Ποιο το αντικείμενο της εργασίας σας: ____

Ποια η χρονική διάρκεια απασχόλησής σας στην παρούσα επιχείρηση; _______________________

Υπό ποιο καθεστώς εργάζεστε; (υπογραμμίστε μία επιλογή από κάθε δίπολο και συμπληρώστε από δίπλα, ή συμπληρώστε στο πεδίο «άλλο»)

Ώρες απασχόλησης ημερησίως *(ΜΕΡΙΚΗ / ΠΛΗΡΗΣ):* ____________

Συνολική διάρκεια σύμβασης *(ΠΡΟΣΩΡΙΝΗ / ΜΟΝΙΜΗ):* ___________________________

(άλλο) ___________________________

Ψάχνετε διαφορετικού τύπου απασχόληση; (υπογραμμίστε ναι ή όχι για κάθε μία από τις παρακάτω ερωτήσεις):

Εργασία για περισσότερες ώρες; *(ΝΑΙ / ΟΧΙ)*

Άλλο είδος εργασίας; *(ΝΑΙ / ΟΧΙ)*

Τι είδους; ____ *ή (ΔΓ / ΔΑ)*

Ποιο είναι το ύψος των απολαβών σας; (συμπληρώστε μικτό εισόδημα) __________________________

Βαθμός ικανοποίησης από την απασχόλησή σας (υπογραμμίστε μία από τις παρακάτω επιλογές)**:**

(πολύ) (κανονικά) (λίγο/καθόλου)

Εργάζεστε υπό μη τυπικές συνθήκες εργασίας; (υπογραμμίστε όσες επιλογές επιθυμείτε ή/και συμπληρώστε το πεδίο «άλλο»)

(Μη δηλωμένη υπερωριακή) (ανασφάλιστη) (χωρίς σύμβαση εργασίας) (άλλο) ________

Η σύμβαση εργασίας σας (εάν υφίσταται) ανταποκρίνεται (υπογραμμίστε ναι ή όχι για τα παρακάτω):

Στις πραγματικές ώρες εργασίας σας ημερησίως *(ΝΑΙ / ΟΧΙ)*

Στις πραγματικές ημέρες εργασίας σας εβδομαδιαίως *(ΝΑΙ / ΟΧΙ)*

Έχουν βελτιωθεί ή επιδεινωθεί οι συνθήκες εργασίας με το χρόνο; (υπογραμμίστε μία επιλογή για κάθε ερώτηση παρακάτω)

Ωραρια*: (βελτιωθεί σημαντικά) (επιδεινωθεί σημαντικά) (μείνει σχετικά αμετάβλητες)*

Απολαβες*: (βελτιωθεί σημαντικά) (επιδεινωθεί σημαντικά) (μείνει σχετικά αμετάβλητες)*

Άλλο σχόλιο; ____

Σε ποια περιοχή διαμένετε; (συμπληρώστε περιοχή και όχι διεύθυνση*)* ________________________

Σχετικά με την προηγούμενη εργασία σας:

Περιοχή: ____

Αντικείμενο: ____

Ποια είναι η γενική άποψή σας για τη γειτονιά που εργάζεστε; _______________________________

Ποια τα βασικά προβλήματα αυτής της γειτονιάς; ____

Πιστεύετε ότι η πρακτική του Airbnb, για τους εργαζόμενους, έχει (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές και όσες επιλέξατε, συμπληρώστε από δίπλα το πώς, ή υπογραμμίστε την επιλογή «δεν έχει επίπτωση»):

(Βελτιώσει τις συνθήκες) Αν ναι, πως; ______________________________________

(Δημιουργήσει πρόβλημα) Αν ναι, ποιο/ποια: ____________________________________

Άλλο σχόλιο: ____

(Δεν έχει επίπτωση)

Έχετε παρατηρήσει στη γειτονιά τα τελευταία χρόνια (υπογραμμίστε ναι ή όχι για τα παρακάτω):

Αισθητική βελτίωση του δημόσιου χώρου *(ΝΑΙ / ΟΧΙ)*

Αρχιτεκτονική βελτίωση των κτηρίων *(ΝΑΙ / ΟΧΙ)*

Αύξηση ενοικίων *(ΝΑΙ / ΟΧΙ)*

Αθέλητη αποχώρηση παλιών κατοίκων *(ΝΑΙ / ΟΧΙ)*

Αλλαγή του χαρακτήρα της γειτονιάς *(ΝΑΙ / ΟΧΙ)*

Έχετε να προσθέσετε κάτι άλλο σχετικά με τον εξευγενισμό, τις βραχυχρόνιες ενοικιάσεις και την επίπτωσή τους στην καθημερινότητά σας στη γειτονιά; ____

Έχετε να σχολιάσετε κάτι επί των ερωτήσεων; ____

Questionnaire for Business Owners

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΠΡΟΣ ΙΔΙΟΚΤΗΤΗ/ΥΠΕΥΘΥΝΟ ΕΠΙΧΕΙΡΗΣΗΣ

Η έρευνα αυτή έχει σκοπό τη μελέτη της εξάπλωσης του εξευγενισμού και της πρακτικής του Airbnb στις γειτονιές της Αθήνας, και την επίπτωσή τους στις τοπικές αγορές εργασίας. Ο εξευγενισμός είναι ένα φαινόμενο που σχετίζεται με αναβαθμίσεις του δημοσίου χώρου, αύξηση ενοικίων, και εισροή νέων κατοίκων στη γειτονιά. Το Airbnb αποτελεί μια πλατφόρμα επικοινωνίας μεταξύ ιδιοκτητών και ενοικιαστών, με σκοπό την κατά κανόνα μικρής διάρκειας ενοικίαση των ακινήτων/διαμερισμάτων των πρώτων.

Ο χαρακτήρας της έρευνας είναι καθαρά ακαδημαϊκός και τα ερωτηματολόγια που δίνονται είναι αυστηρά ανώνυμα. ***ΑΦΟΥ ΣΥΜΠΛΗΡΩΘΕΙ ΤΟ ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ, ΠΑΡΑΚΑΛΩ ΑΠΟΣΤΕΙΛΕΤΕ ΤΟ ΣΤΟ EMAIL ΠΟΥ ΑΝΑΦΕΡΕΤΑΙ ΣΤΟ ΚΑΤΩ ΔΕΞΙΑ ΜΕΡΟΣ ΚΑΘΕ ΣΕΛΙΔΑΣ!***

Ποια είναι η ηλικία σας; (υπογραμμίστε μία από τις παρακάτω επιλογές):

(18-25) (26-35) (36-45) (46-60) (61-70) (>70)

Σε ποια περιοχή διατηρείτε την επιχείρησή σας; (συμπληρώστε περιοχή και όχι διεύθυνση*)* _________

Ποιος ο τύπος της επιχείρησής σας: ____

Ποια η χρονική διάρκεια λειτουργίας της επιχείρησής σας: _________________________

Ποιοι υπήρξαν οι παράγοντες εγκατάστασης της επιχείρησης στη γειτονιά; (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε το πεδίο «άλλο»):

(ιδιοκτήτη γη) (χαμηλό ενοίκιο) (θέση γειτονιάς) (πελατολόγιο) (ήδη κάτοικος της περιοχής)

(άλλος) ____

Υπό ποιο καθεστώς χρησιμοποιείτε τον επαγγελματικό σας χώρο; (υπογραμμίστε μία από τις παρακάτω επιλογές ή συμπληρώστε το πεδίο «άλλο»)

(ενοικίαση) (ιδιόκτητο) (άλλο) _________________________________

Εάν ενοικιάζετε, ποιο είναι το ύψος του ενοικίου; ________________________

Τα τελευταία χρόνια έχει (υπογραμμίστε μία από τις παρακάτω επιλογές):

(αυξηθεί αισθητά) (μειωθεί αισθητά) (μείνει σχετικά στάσιμο)

Πόσα τετραγωνικά μέτρα είναι περίπου ο επαγγελματικός χώρος σας; _________________________

Ποιος ο συνολικός αριθμός απασχολουμένων στην επιχείρηση; _________________________

Τα τελευταία χρόνια, ο αριθμός τους έχει (υπογραμμίστε μία από τις παρακάτω επιλογές):

(αυξηθεί σημαντικά) (μειωθεί σημαντικά) (μείνει σχετικά αμετάβλητος)

Απασχολείτε δυναμικό ευέλικτα; (υπογραμμίστε ναι ή όχι για κάθε ένα από τα παρακάτω ή/και συμπληρώστε το πεδίο «άλλο»):

Περιστασιακό/προσωρινό δυναμικό *(ΝΑΙ / ΟΧΙ)*

Μερικώς απασχολούμενους *(ΝΑΙ / ΟΧΙ)*

(άλλο) _________________________________

Πόσοι περίπου είναι οι ευέλικτα εργαζόμενοι συνολικά στην επιχείρηση; _________________________

Ο αριθμός τους τα τελευταία χρόνια έχει (υπογραμμίστε μία από τις παρακάτω επιλογές):

(αυξηθεί σημαντικά) (μειωθεί σημαντικά) (μείνει σχετικά αμετάβλητος)

Αν απασχολείτε ευέλικτα εργαζόμενους, για ποιους λόγους το κάνετε; (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε το πεδίο «άλλο»):

(μείωση κόστους) (κάλυψη περιστασιακών αναγκών) (άλλο) ______________

Έχετε σκέψεις/πιέσεις για μετεγκατάσταση; *(ΝΑΙ / ΟΧΙ)*

Αν ναι, λόγος/οι; (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε το πεδίο «άλλο»)

(οικονομικό, ενοίκιο, φορολογία) (θέση γειτονιάς) (χαμηλή πρόσβαση στο κατάλληλο κοινό)

(άλλος) ___________________________

Είστε ικανοποιημένος με την πορεία της επιχείρησης τα τελευταία χρόνια; (υπογραμμίστε μία από τις παρακάτω επιλογές ή συμπληρώστε «άλλο»)

(πολύ) (λίγο) (καθόλου) *(άλλο)* __________________________

Το πελατολόγιό σας προέρχεται (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε «άλλο»):

(από γειτονιά) (από την πόλη) (ξένοι επισκέπτες) *(άλλο)* ____________________

Ποια είναι η γενική άποψή σας για τη γειτονιά που βρίσκεται η επιχείρηση; _________________________

Ποια τα βασικά προβλήματα αυτής της γειτονιάς; _______________________________

Έχετε παρατηρήσει στη γειτονιά τα τελευταία χρόνια (υπογραμμίστε ναι ή όχι για τα παρακάτω):

Αισθητική βελτίωση του δημόσιου χώρου *(ΝΑΙ / ΟΧΙ)*

Αρχιτεκτονική βελτίωση των κτηρίων *(ΝΑΙ / ΟΧΙ)*

Αύξηση ενοικίων *(ΝΑΙ / ΟΧΙ)*

Αθέλητη αποχώρηση παλιών κατοίκων *(ΝΑΙ / ΟΧΙ)*

Αθέλητη αποχώρηση/μετεγκατάσταση επιχειρήσεων *(ΝΑΙ / ΟΧΙ)*

Αλλαγή του χαρακτήρα της γειτονιάς *(ΝΑΙ / ΟΧΙ)*

Πιστεύετε ότι η πρακτική του Airbnb, για τους επιχειρηματίες, έχει (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές και όσες επιλέξατε, συμπληρώστε από δίπλα το πώς, ή υπογραμμίστε την επιλογή «δεν έχει επίπτωση»):

(Δημιουργήσει ευκαιρίες) Αν ναι, πως; ________________________

(Δημιουργήσει πρόβλημα) Αν ναι, ποιο/ποια: ________________________

Άλλο σχόλιο: ________________________

(Δεν έχει επίπτωση)

Έχετε να προσθέσετε κάτι άλλο σχετικά με τον εξευγενισμό, τις βραχυχρόνιες ενοικιάσεις και την επίπτωσή τους στην καθημερινότητά σας στη γειτονιά; ______________________________________

Έχετε να σχολιάσετε κάτι επί των ερωτήσεων; ____

Questionnaire for Residents

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΠΡΟΣ ΚΑΤΟΙΚΟ

Η έρευνα αυτή έχει σκοπό τη μελέτη της εξάπλωσης του εξευγενισμού και της πρακτικής του Airbnb στις γειτονιές της Αθήνας, και την επίπτωσή τους στις τοπικές αγορές εργασίας. Ο χαρακτήρας της έρευνας είναι καθαρά ακαδημαϊκός και τα ερωτηματολόγια που δίνονται είναι αυστηρά ανώνυμα.

ΑΦΟΥ ΣΥΜΠΛΗΡΩΘΕΙ ΤΟ ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ, ΠΑΡΑΚΑΛΩ ΑΠΟΣΤΕΙΛΕΤΕ ΤΟ ΣΤΟ EMAIL ΠΟΥ ΑΝΑΦΕΡΕΤΑΙ ΣΤΟ ΚΑΤΩ ΔΕΞΙΑ ΜΕΡΟΣ ΚΑΘΕ ΣΕΛΙΔΑΣ!

Ο εξευγενισμός είναι ένα φαινόμενο που σχετίζεται με αναβαθμίσεις του δημοσίου χώρου, αύξηση ενοικίων, και εισροή νέων κατοίκων στη γειτονιά. Το Airbnb αποτελεί μια πλατφόρμα επικοινωνίας μεταξύ ιδιοκτητών και ενοικιαστών, με σκοπό την κατά κανόνα μικρής διάρκειας ενοικίαση των ακινήτων/διαμερισμάτων των πρώτων.

Ποια είναι η ηλικία σας (υπογραμμίστε μία από τις παρακάτω επιλογές):

(18-25) (26-35) (36-45) (46-60) (61-70) (>70)

Τόπος Κατοικίας (αναφέρετε γειτονιά & δρόμο): ____

Προηγούμενη κατοικία: ____

Λόγοι εγκατάστασης στη γειτονιά (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε το πεδίο «άλλο»):

(οικονομικό) (θέση γειτονιάς) (κοινωνικός/οικογενειακός)

(άλλος) ____

Χρονική διάρκεια διαμονής στη γειτονιά: _______ χρόνια

Έχετε σκέψεις/πιέσεις για μετακόμιση; *(ΝΑΙ / ΟΧΙ)*

Αν ναι, λόγος/οι; (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές ή/και συμπληρώστε το πεδίο «άλλο»)

(οικονομικό) (θέση γειτονιάς) (κοινωνικός/οικογενειακός)

(άλλος) ________________________

Υπό ποιο καθεστώς ενοίκησης διαμένετε στην οικία σας; (υπογραμμίστε μία από τις παρακάτω επιλογές):

(ιδιόκτητο) (ενοίκιο)

(άλλο) ________________________

Έχετε πραγματοποιήσει εργασίες ανακαίνισης/βελτίωσης της οικίας σας; *(ΝΑΙ / ΟΧΙ)*

Αν ναι, ποιες ________________________

Ποιο είναι το επίπεδο μηνιαίου ατομικού εισοδήματός σας; (υπογραμμίστε μία από τις παρακάτω επιλογές):

(χωρίς εισόδημα) (>500) (500-1.000) (1.000-1.500) (1.500-2.000) (>2.000)

Λαμβάνετε κάποιο επίδομα; *(ΝΑΙ / ΟΧΙ)*

Αν ναι, ποιο/ποια: ____

Ύψος ενοικίου: ________________________

Τα τελευταία χρόνια έχει (υπογραμμίστε μία από τις παρακάτω επιλογές):
(αυξηθεί αισθητά) (μειωθεί αισθητά) (μείνει σχετικά στάσιμο)

Πόσα τετραγωνικά μέτρα είναι περίπου η οικία σας; ________________________

Σε ποια περιοχή εργάζεστε: ____

Υπό ποιο καθεστώς εργάζεστε; (υπογραμμίστε μία επιλογή από κάθε δίπολο ή υπογραμμίστε την επιλογή «ΑΥΤΟΑΠΑΣΧΟΛΟΥΜΕΝΟΣ» ή συμπληρώστε το πεδίο «άλλο»):

(ΜΕΡΙΚΗ / ΠΛΗΡΗΣ) & (ΠΡΟΣΩΡΙΝΗ / ΜΟΝΙΜΗ)

(ΑΥΤΟΑΠΑΣΧΟΛΟΥΜΕΝΟΣ)

(άλλο) ____________________________

Ποια είναι η γενική άποψή σας για τη γειτονιά σας; _______________________________________

Ποια τα βασικά προβλήματα της γειτονιάς; ____

Έχετε παρατηρήσει στη γειτονιά τα τελευταία χρόνια (υπογραμμίστε ναι ή όχι για τα παρακάτω):

Αισθητική βελτίωση του δημόσιου χώρου *(ΝΑΙ / ΟΧΙ)*

Αρχιτεκτονική βελτίωση των κτηρίων *(ΝΑΙ / ΟΧΙ)*

Αύξηση ενοικίων *(ΝΑΙ / ΟΧΙ)*

Αθέλητη αποχώρηση παλιών κατοίκων *(ΝΑΙ / ΟΧΙ)*

Αλλαγή του χαρακτήρα της γειτονιάς *(ΝΑΙ / ΟΧΙ)*

Πιστεύετε ότι η πρακτική του Airbnb, για τη γειτονιά, έχει (υπογραμμίστε όσες επιθυμείτε από τις παρακάτω επιλογές και όσες επιλέξατε, συμπληρώστε από δίπλα το πώς, ή υπογραμμίστε την επιλογή «δεν έχει επίπτωση»):

(Βελτιώσει τις συνθήκες) Αν ναι, πως; ____

(Δημιουργήσει πρόβλημα) Αν ναι, ποιο/ποια: ____________________________________

(Δημιουργήσει ένταση μεταξύ των κατοίκων) Αν ναι, πως; ____________________________

Άλλο σχόλιο: ____

(Δεν έχει επίπτωση)

Έχετε να προσθέσετε κάτι άλλο σχετικά με τον εξευγενισμό, τις βραχυχρόνιες ενοικιάσεις και την επίπτωσή τους στην καθημερινότητά σας στη γειτονιά; __________________________________

Έχετε να σχολιάσετε κάτι επί των ερωτήσεων; __________________________________

ANNEX IV: Fieldwork Questionnaires' Analysis

Sample description

Age groups across all focus groups

Koukaki sample consists of a balanced mix of interviewees age wise; the most prominent group is the 36-45, while there is a substantial number of interviewees above 60 years of age. Kerameikos sample on the other hand mainly comprises 26-35 and 46-60 interviewees, while people above 60 years old are very few.

Residents' profile

Residents interviewed in Koukaki belong evenly to almost all age groups, except for the 61-70 group (an underrepresented group in Kerameikos as well), with many residents being older than 70 years old. In Kerameikos the two abovementioned groups are prominent again (26-35 and 46-60), with almost no older people (above 70).

The above observations for residents make sense, as Koukaki has been a family neighborhood for years, with many longtime residents (many have lived there for more than 20 years), and with a mild influx of residents in the past 5 years, after the completion of the metro station and the upgrading of the neighborhood. It is indicative that almost half of the interviewees have either lived their whole lives in the neighborhood, or at least their previous house was also there, and they moved in the neighborhood for family/social reasons. In Kerameikos, these are fewer, and most of the residents moved in after the regeneration of the area almost 10 years ago, with only few being longtime residents. In total, Koukaki has been a traditional Athenian neighborhood with an ageing population, with almost half of the interviewees being pensioners, and less often self-employed, in contrast to Kerameikos. Even though only Koukaki still boasts a local market, as contrasted to Kerameikos, residents in both areas work near their home.

From the income breakdown analysis, it is found that whereas in Koukaki most residents earn the typical 500-1000 euros of wage or pension per month, in Kerameikos there is more dispersion across income levels, with many interviewees being students without an income, low paid workers below 500 euros, typically paid workers reaching 1000 euros max, or, moreover, middle aged professionals earning more than 1500 and 2000 euros per month. In other words, while in Koukaki most residents earn between 500 and 1500 euros, in Kerameikos there are interviewees poorer, as well as more affluent. The latter earn from 1500 to 3000 per month, and their presence indicate the already existing gentrification processes the neighborhood has undergone. This observation becomes even more important if we consider that Koukaki has traditionally been a middle-class, family-oriented neighborhood, whereas Kerameikos was a very deprived area, with traces of its past still present: criminality, vicinity to urban manufacturing uses, brothels, and a concentration of gypsies for whom many residents complain about. However, harnessing the contrast of gentrifying areas, Kerameikos presents the presence of more affluent residents clearly, as compared to Koukaki.

Tenure status is similar in both areas, with half of the interviewees living in rent and the other half in owned houses. Similarly, half of the answers in both areas show that multiple renovation works and maintenance were done to dwellings. Even though both areas receive heavy pressures in their housing markets, very few people are considering leaving; the few in Koukaki that answered yes, do so due to economic factors (mainly rent and living costs). On the other hand, in Kerameikos, they do due to family and social reasons, probably indicating the heavier pressure housing and rental markets receive in Koukaki, and the fact that Kerameikos has already undergone a (disrupted and not full-fledged, but notable nonetheless) gentrification process in the past that has already led to a partial population replacement. Rents have not been found to have increased for most interviewees, even though most of them in both areas answered they see a significant general rent increase in their neighborhood and affirm a widespread displacement (for the latter, mainly in Koukaki).

Rents in both areas for most interviewees fluctuate around 250-300 euros, but in Kerameikos we have found some paying cheaper, below 200 euros, indicating the relative concentration of older/of worse condition dwellings in the area, probably rented out to students. In Koukaki, due to its vicinity to universities, there has been an influx of students, who, however, were very vulnerable to the recent rent increases and most have left the neighborhood already.

Workers' profile

Workers in Koukaki are evenly dispersed across the age groups between 18 and 60, with those between 18-25 to be the largest group. In Kerameikos, the same two groups (26-35 and 46-60) that stood out in residents are prominent again, alongside younger workers (18-25). The above resonated with our observations that the cases of young (below 25), female workers are most prominent in the cafes of the two pedestrian roads in Koukaki, while workers in Kerameikos are either male or female, young (25-36), and working in bars, or older (46-60), mainly males, working in retail.

The more balanced age mix of Koukaki hints the existence of a local market, which is staffed by local people, as revealed by questions on the workers' area of residence. In Kerameikos, workers come from out of the neighborhood, with many coming from faraway areas of Athens, something that is not common in Koukaki. Regarding their previous job, workers in Kerameikos answered they worked somewhere outside the study area, and far from their area of residence, revealing that people may end up working in Kerameikos without being their intention, just because that is where they found a job. On the contrary, workers in Koukaki are intentionally choosing to work again in the neighborhood or at least somewhere close, being residents of the area themselves usually.

Both areas exhibit a short labour turnover time, as half workers have started their jobs within the past two years. In Koukaki some of them also have their job for over 5 years, whereas in Kerameikos there is a relative concentration of those who have it from 3 to 5 years, again, indicating a surge in workforce numbers there after the area was renovated. Typical (simultaneously fulltime and indefinite-term contract) is less common in Koukaki while it is the case for half of the workers interviewed in Kerameikos, even though in both areas most workers working either fulltime or permanent jobs. Cases of atypical labour as in undeclared overtime work are common in Koukaki's leisure sector businesses. In Koukaki workers find themselves very often in situations that do not follow the pre-arranged conditions in their contracts, whereas, in contrast, workers in Kerameikos answer that their employment contracts are mostly valid.

Workers in Koukaki are poorly paid, as there are cases of below 500 euros, even though there are some earning between 1200 and 1500 euros (a group with a stronger presence in Koukaki than in Kerameikos). In general, in both areas, the most common group is those paid around the basic wage (500-800 euros). In Kerameikos some interviewees earn more than 1000 euros, and hardly anybody below 500, whereas some in Koukaki do. Workers without a college/university degree are more common in Kerameikos, and they work in establishments other than cafes/bars, such as retail shops and workshops. In Koukaki, most workers have a college degree while some hold a masters title as well but still work as waiters/waitresses at cafes and small restaurants. The above are reflected upon the levels of workers' satisfaction, as in Kerameikos most interviewees answered they like their jobs and the employment conditions, or at least that they find those ok. On the contrary, workers in Koukaki are more or less dissatisfied and are in search of a better job wage and schedule wise.

Labour conditions have not greatly changed over time for most workers in their current job, regardless of the area. Working hours have changed for more workers in Kerameikos than in Koukaki; in the former, we found that half of the interviewees saw their schedules changing either to the better or the worse (almost evenly dispersed between those two answers). In Koukaki, almost no one saw an improvement, and some saw a worsening of their working hours. Wage wise, answers in Kerameikos reveal again more changes than in Koukaki, as half of the interviewees again saw their earning changing to the better or the worse (almost evenly dispersed between those two answers). The above do not indicate more stable conditions in Koukaki however; the answers do not show significant changes overtime because of the extremely short labour turnover among the businesses opening up in great numbers, and the already bad conditions workers there have to work under (as revealed by their levels of satisfaction).

Business owners' profile

People who hold businesses in Koukaki are mainly between 36-45 years of age, whereas in Kerameikos business owners are mainly older (46-60), but interestingly, there are many between 25 and 36 years of age as well. Business owners in Koukaki are mostly middle aged, having retail or food related establishments. The age composition in Kerameikos is more strange and uneven, but it is evident that young entrepreneurship is more common there. That makes sense considering the big number of small workshops/services businesses in Kerameikos, and the emergence of a market around recreation during the past few years; in Koukaki, the economic base is more "traditional" and local market oriented, even though that is changing nowadays. The main difference between the two areas is that in Koukaki there are many older owners, above 60 years old, something almost absent in Kerameikos, something that correlates with our findings on the existence of a local market that has been there for many decades.

In Koukaki the interviewees run more food-related businesses (taverns, ourzeries, restaurants) and less coffee and drink places (cafes and bars). The most prominent category in both areas was retail (in Kerameikos we interviewed a few more) and cafes/bars. In Kerameikos there are more wholesale clothes shops, but we interviewed more services shops (liquor service station for example). In Kerameikos we found more services businesses (e.g. photography studios, accountants, tattoo parlors, bike repair shops etc.), but in Koukaki we found more workshops (jewelry makers for example) and house petty maintenance/fixing/services businesses (locksmiths, glaziers, plumbers, electricians). The abovementioned mix of businesses reflect adequately the situation in both areas and the main differences in their economic base. On the one hand, Koukaki has a local market of retail, and more ouzeries and bakeries serving breakfast and coffee to the multitude of tourists visiting the area. Most businesses are located across the two pedestrian streets of the neighborhood, and the few parallel streets connecting those. On the other hand, Kerameikos has more cafes and bars, without a strong local market. The area abounds in wholesale clothes shops and "Chinese trade" shops, but this category is not adequately represented through the questionnaires. It must be noted that housing maintenance/fixing related businesses were non-existent in Kerameikos, but in Koukaki, due to the intense activity of renovated apartments offered to tourists, this type of work thrives.

In Koukaki young businesses (below 2 years) are more, whereas in Kerameikos we found more businesses running from 2 to 10 years – resonating with our conclusions about the establishment of a new economic base in Kerameikos earlier than in Koukaki, due to gentrification tendencies. At the same time, older establishments (more than 15 years old) are more in Koukaki – resonating with our conclusions about the longstanding local market there. Duration of businesses' activity reveals that in Koukaki there is an emerging market of eating/dining/drinking businesses that do not count more than a few months of activity, mixed with a base of older traditional businesses such as bookstores, clothes shops etc. In Kerameikos, local market is almost non-existent, but there is a number of food and drink businesses set up during the last 10 years, as soon as the area started changing.

Reasons to set up a business in Koukaki include already owning space and already being a resident of the area. Kerameikos seemed like a more attractive neighborhood for business owners, at least until recently, due to its clientele concentration (mix of locals and visitors choosing local places mainly for recreation), as well as the location of the neighborhood. The same observations are reached through the tenure status of business spaces, with Koukaki having more owned spaces and Kerameikos more rented spaces. However, many business owners in Kerameikos that the area (especially across some pedestrian streets at the center of the neighborhood) is no longer a crossing point for visitors from the city or abroad, rendering the area less attractive as a location to start a business nowadays.

Rent levels for business spaces are higher in Koukaki, and we found many rents above 750 euros. In Kerameikos there are business owners renting for less than 250 euros (for very small spaces), but at the same time the ones renting for mid-level rents (500-750) are also more than in Koukaki. Owners who see their rent increasing in Kerameikos are more, possibly during the areas gentrifying phase for the last 10 years or so. In Koukaki, owners do not report such a thing, even though they mention an intensified displacement of businesses. However, we must note that rent levels are arguably higher in Koukaki, even though business spaces are not notably bigger. Resonating with the above, business displacement is not so apparent in Kerameikos.

Family businesses are far more in Koukaki, as well as mid-sized businesses (3-5 workers). Businesses occupying more than 10 workers cannot be found in neither neighborhood, but in Kerameikos those having 6-10 workers are much more (mainly wholesale clothes and other-types shops). The size of businesses is much more volatile in Kerameikos, whereas in Koukaki most owners report that they have not changed the size of their staff recently.

In Kerameikos, we found that many businesses occupy flexible labour, and those that they do, they have more than 2-3 flexibly working employees (mainly bars and restaurants). However, we must note that even though businesses in Koukaki do not report notable volumes of flexible staff, we found that contracts there are breached more often, making the low numbers of flexible workers more suspicious. We reported above either way that most workers working under underpaid overtime are far more in Koukaki. The most usual reason for hiring flexible labour in both areas is the "nature of the work", namely covering shifts in bars and restaurants.

One very important finding is that many business owners report in Kerameikos that they receive displacement pressures more often than in Koukaki. At the same time, as we will see below, business owners in Koukaki report much more often that businesses in their area are displaced involuntarily than their peers in Kerameikos. The main factors for receiving displacement pressures are economically related issues, such as high rents and low turnover (income) – relevantly, some owners in Koukaki are reporting that their displacement is imminent as the spaces they use are going to be turned to Airbnb apartments by their landlords. On the other hand, many owners in Kerameikos also report that they have to relocate due to limited access to the right clientele (as mentioned earlier).

Could that mean that Kerameikos constitutes a fragmentedly gentrified area in distress? It must be noted that the same issue concerns many owners in Koukaki who retain businesses outside the axis of the two pedestrian streets and the parallel streets connecting those. In any case, through the answers to our questionnaires, the main factor differentiating our two research areas is the abovementioned issue of limited access to the right clientele. Owners in Koukaki highly satisfied with their business are more, whereas owners *just satisfied* with their business are more in Kerameikos. Those not satisfied at all are more or less the same number in both areas.

Last, clientele in both areas can be coming from the neighborhood, the city or being foreign visitors, but in Kerameikos businesses are receiving more people from the city in general, whereas in Koukaki businesses are serving locals more; both areas receive foreign visitors. The above reveal that Kerameikos is an already established recreational area that is chosen by many residents of Athens, whereas Koukaki still has the sense of a local neighborhood with dwellers of the area spending some of their income inside the neighborhood.

Views of the neighborhood

In Koukaki, the view of the neighborhood varies a lot per focus group; we got the sense that most of the residents have a generally positive opinion for the neighborhood, while positive/negative views are almost balanced among workers in the neighborhood. Business owners generally hold a positive view, like residents. Opinions, as expressed and analyzed through key phrases also vary a lot depending on the focus group. Workers value the multicultural and local character of the neighborhood, along with its quietness. Tourism is valued by some but not all. On the contrary, most consider tourism as an aggravating factor for the neighborhood, and many of them mention pressures for touristification and Airbnb as two of the vices of the neighborhood. The influx of affluent dwellers is also mentioned by workers as a problem, especially those being residents at the same time, and being vulnerable to rents' increases, amid a tight housing market with few available apartments (all those are mentioned as problems by the workers interviewees). The closing of many local establishments and the weakening of the local market are also mentioned as problems. For residents, who have a generally positive opinion for the neighborhood, the positive aspects of the neighborhood are also – as with workers – its local and humane character, but also its central location and easy access with means of public transport, its beauty, and its recent upgrading. As problems, they identify the municipality's weak presence (as reflected on badly maintained streets and sidewalks, few green spaces, lack of parking spaces, and generally rare interventions), the increasing of rents, touristification and nuisance by relevant activities, pollution and garbage, and lack of parking spaces. Last, business owners, who also hold a generally positive view on the neighborhood, value the neighborhood's still standing local market, its central location, and its local character. The most-often mentioned problems are the lack of business spaces (tight real estate market), rents increase, dirtiness and garbage concentration, touristification, and lack of parking spaces. In summary, most interviewees value the neighborhoods central location and accessibility, its beauty and local character. Garbage and pollution issues, the overall absence of municipality authorities, lack of parking spaces, and the tight housing/rental market are mentioned from almost all interviewees as negative aspects of Koukaki.

In overall, the higher number of workers having a negative view on the neighborhood reveals the adverse conditions under which they are working. On the other hand, the generally positive view business owners hold reveals that specific markets are flourishing under the current conditions, a development which is very important, if we count in the considerably lower number of business owners answering the same in Kerameikos. Residents feel vulnerable in their neighborhood, but they still value its merits, namely location, and its character and beauty, but they also value the increased traffic in their area (even though some complain about the nuisance caused by tourism-related businesses and by tourists inside the buildings).

In Kerameikos, workers view the neighborhood more positively than their peers in Koukaki. They value the absence of high buildings (low construction) and the low density of the area (in contrast, Koukaki is generally a very dense – hitherto residential – area), the multicultural character of the area (just as their peers in Koukaki), its quietness, and its development into a vibrant recreational hub. On the other hand, they identify drugs, poverty, criminality, and 'otherness' (junkies, gypsies, foreginers) as problems – vices Kerameikos carries from its past, but at a lower level than years ago. Residents are also mostly favorable of their neighborhood. The vibrancy of the neighborhood and its progress is praised by them as well; they add as factors the concentration of artistic activities (such as the area's carnival and many artistic spaces/workshops) and its centrality/accessibility. Kerameikos is mentioned as alternative by residents and business owners alike, just as "authentic" and of local, distinct character. On the other hand, residents mention the death of their local market, nuisance, dilapidated structures (there are many in Kerameikos), drugs, and criminality (as workers there also mentioned), and an overall absence of the municipal authorities (as mentioned in Koukaki as well), as problems. One very interesting aspect is that some of them see the developments of the last decade in the neighborhood as "bad upgrading", but most of them value the decrease of criminal activity in the area. The least favorable to the neighborhood group is that of the business owners, where positive/negative views recorded almost reach a balance. This group values Kerameikos' alternative character, central location, distinct flavor and multiculturality. They identify criminality (and bad policing), lack of a local market except for cafes/bars, the tight housing market, garbage and noise, as well as lack of parking spaces, as problems. As we have mentioned above, they are not as satisfied with their businesses as their peers in Koukaki.

Nuisance from clubs/bars, the degradation of the Gazi area, poverty, criminality, and pollution are mentioned by most of the interviewees. Additionally, lack of a local market, the absence of the municipal authorities, are also pinpointed. A tight housing market is not so much of a perceived problem in Kerameikos as it is in Koukaki, and hardly any has mentioned touristification there (in Kerameikos) as a problem; the only exception comes from business owners, who may see their rents going up. Kerameikos' vibrancy, central location, and alternative character is mentioned as merits by most, giving away how locals see the neighborhood, namely as an alternative recreational hub right next to the city's center. On the other hand, interviewees in Koukaki, which is among the most touristified areas internationally (in terms of Airbnb activity at least, and carrying a long tradition of hoteling in its northern part, which is adjacent to Plaka and the Acropolis), acknowledge the heavy pressure tourism traffic puts on their neighborhood, in terms of nuisance, rent levels, and urge to "fix" and transform the local economic mix, which stood for decades.

Questionnaires administration also documented the perceived image of changes in the neighborhoods through the eyes of the interviewees. Questions addressed changes in buildings, public spaces, rent levels, population displacement, and character of the neighborhood.

In Koukaki, few interviewees saw improvements in public and open spaces over the last few years; less so business owners, but that's a common view among all groups. However, almost half of the interviewees there (in Koukaki) saw changes architecturally wise in buildings; interestingly, workers and business owners were more keen on replying they do see changes in buildings and the physical environment of the neighborhood, while residents less so. Residents might be more "demanding" on changes and improvements in their neighborhood and their rented houses, so they generally hesitated to say they see improvements in this field. To the question about rent rises, almost everybody answered that they do see it taking place; indeed, specifically, among workers, nobody replied they have not noticed such a thing. Similarly, almost all see involuntary displacement of people from the neighborhood; workers were more hesitant to affirm it, as some of them have limited familiarity with the neighborhood's reality, but the other two groups affirmed this phenomenon, which affects large numbers of people who resided in the area until recently. Moreover, most business owners confirmed that there is a business displacement in the neighborhood as well. The view that the neighborhood of Koukaki has its character changed over the past few years was common again among residents and business owners, but less so among workers. Summarily, questionnaires do not affirm all aspects that constitute gentrification: namely, they do not affirm improvement in public and open spaces. However, it is not necessary for this aspect (or others) to be realized at the highest degree; in general, not all factors should be realized at the highest degree simultaneously to call a process gentrification, for various reasons. For example, because with this research we are inquiring touristification as well (especially in the area of Koukaki) and not just gentrification, or that our cases saw gentrification spurred around new transit stations, which is a model of gentrification that variates from the rest, etc. However, questionnaires did affirm a changing in the character, an architectural and practical improvement of an otherwise ageing housing (and generally building) stock (that would have had left unattended without Airbnb probably), high extent of involuntary residents' displacement, and an apparent switching to new blends and mixes in the businesses in the area, with older businesses' displacement to be unavoidable if they do not cater to the tastes of foreign visitors and the people who choose Koukaki for recreation (therefore, those constituting the "local market" structure are particularly vulnerable, as they are not part of the leisure sector).

In Kerameikos, very few workers have noticed an improvement in open and public spaces; the same applies at a lesser extent for business owners. However, almost half of residents asked did notice such an improvement (unlike their peers in Koukaki, already setting an important difference between our two research areas – that of the improvement of open/public spaces). Improvements in public and open spaces may have not been affirmed by the sum of interviewees, but the balance of answers among residents indicate that the area has undergone a process of gentrification in the recent past, something that we can safely reject for Koukaki, which only recently began a heavy transformation, mainly revolving around tourism (and secondarily around the new metro station). Regarding changes in buildings, workers answer that they have not noticed major improvements; however, half of residents do, as most of business owners. This is a similar case as with Koukaki: neighborhood change revolves around changes in buildings rather than changes in open spaces. As noticed in Koukaki as well, most interviewees affirm rent levels increments. Interestingly, the same does not apply for former residents' displacement, and mainly among residents and workers: the number of interviewees (and strangely residents as well) answering they do not know is uncommonly high. This is not the case for business owners, as most of them run a business for a long time, and they answer that they do see population displacement, indicating that this process took place earlier in time. This is relevant to the fact that gentrification pressures started in Kerameikos over a decade ago, having abruptly stopped for a while by the economic recession, and given "new life" by short-term rentals expansion. The above observations correlate with the interviewees' answers regarding any potential neighborhood character change: as workers have spent fewer years in the neighborhood, most of them answer they do not see such a process. However, residents and business owners answer otherwise, affirming a character change process that took place deeper in the past of the area. Unlikely to what was affirmed in Koukaki, business owners in Kerameikos do not see businesses displacement, probably due to an earlier transition. Summarily, again as in Koukaki, questionnaires do not reveal an "upgrading" in public spaces; however, they do indicate changes in the building stock of the neighborhood, rent levels increments, and a change in the character of the neighborhood. Population displacement is particularly viewed as a fact by business owners, who, however, do not see business displacement. It is a fact that many owners said that business space rents did not increase considerably over the past few years; this may indicate that a different process is taking place in Kerameikos, compared to Koukaki. It can be safely said in that matter, that pressures from short-term rentals are much lower in Kerameikos than in Koukaki.

Summarily, gentrification in Kerameikos not only took place earlier than in Koukaki (apparently), but it was a different type: recreational uses expanded over vacant spaces and the dilapidated building stock was reduced and new construction took place, unlikely to what happens now in Koukaki. The above has been reflected through the views of residents regarding changes in the general image of the neighborhood, its open and public spaces (in which half of them saw improvements unlike their peers in Koukaki). The most crucial difference between the two neighborhoods is the views on businesses' displacement, maybe indicating variating rent levels' rises. Probably, the "economic base turnover", namely, a transition to a new businesses mix in the areas, has happened in Kerameikos already, and nowadays it does not take place. The transformation of Koukaki is arguably younger (more recent), hence the higher levels of businesses displacement, that is also accompanied by skyrocketing rents due to a massive touristification of the area. Actually, touristification of Koukaki could turn out to be a peculiar blend of gentrification at the highest and most complete sense of the process by Greek standards, whereas similar processes in other parts of Athens eventually ran out of steam at some point.

Regarding the impact of Airbnb on the focus groups, questionnaires reveal an interesting picture. In Koukaki, workers see the platform mostly as a vice. Its positive impact includes more jobs, as a result of the increased vibrancy, and increased tips by tourists: a habit that is not equally common by Greek customers. However, problems caused by Airbnb include its negative impact on hotels (affecting hotel workers), intensified shifts and employment conditions, lower wages as a result of unregulated labour arrangements, and difficulty in finding a house near work. Some of the workers mentioned that Airbnb tourists do not move too much around the neighborhood, and that the phenomenon has affected the neighborhood by changing its character. Among residents, Airbnb is again more commonly seen as a problem: that makes sense, as this group is predominantly affected by the phenomenon through increments in long-term rents' levels. Even though they do admit that Airbnb has improved the area's vibrancy, resulting in better safety, it has improved income for businesses (even though some noted that this is the case only for the leisure sector), and that it has led to the opening of various businesses, on the other hand, they stress out the extreme rent increases and lack of available houses, the displacement, the degraded aesthetics nowadays, and nuisance within buildings caused by tourists. Especially regarding the latter, half of the residents asked have replied that there are confrontations among tenants inside buildings; namely, those who own Airbnb apartments and those who do not. The answers of business owners vary from the previous two groups: these view Airbnb as an opportunity, but at the same time more than half of them admit it constitutes a problem and a threat for the neighborhood. They stress out that it has led to increased tourist traffic, more job opportunities for workers, has helped emerging markets, and that it has particularly helped retail and leisure related businesses. Simultaneously, they point out that it leads to intensified labour and longer shifts for workers, that it drives residents that have supported their businesses for a long time out of the neighborhood due to increased rent levels and evictions, and that it causes trouble inside the buildings. In general, the opinion of business owners relies heavily upon the type of business they run: those who have a café/bar/tavern that caters the tastes of tourists and young people spending their nights in the area do not have a problem with the platform. Those running service stations and other retail related businesses express their distress of the recent developments. In general, very few people answer in Koukaki that Airbnb bears no impact; more do express this view in Kerameikos, and especially among workers it is an unlike – but more common – answer.

Workers in Kerameikos have mixed feelings about Airbnb; some of them view it as an opportunity and some as a problem. Interestingly, many workers in Kerameikos do not even see an impact by Airbnb, revealing the more limited impact the platform has in Kerameikos, especially when compared to Koukaki. They stress out that traffic brings more job opportunities and increases their income, that it constitutes a very important ally for the leisure sector, and that many Airbnb owners buy their supplies from local shops. However, on the other hand, displacement, evictions, increased rents, and the tightening housing market affect them (and not only residents) as well. Especially in sectors such as retail that workers have traditionally chosen dwellings near their jobs, Airbnb poses as a very important threat. Last, they do point out the negative impact on hotels and their workers. Even though more than half of the residents in Kerameikos asked see Airbnb as a problem, they are not as many as in Koukaki. Those viewing it as an opportunity stress out that it has helped the emerging markets of bakeries/cafes that offer breakfast to tourists and mini markets. They also admit an increased local market traffic, even though they have indicated that the local market has already died out many years ago in the area. Contrary to what we encountered in Koukaki, many residents in Kerameikos value the cultural exchange with visiting foreigners, as they also value a lot the decreased levels of criminality, which used to be prevalent in the area some years ago (and still is more than in Koukaki). It is interesting that some of them view Airbnb as a factor that improved recreational choices in Kerameikos, even though the area was famous for those uses even before the burst of Airbnb activity lately. Last, many residents noticed that Airbnb has mobilized the real estate market; an apparent observation, that has not been made by their peers in Koukaki nonetheless. On the other hand, nuisance inside buildings and a tightening housing market with all its negative externalities are pinpointed as problems. Business owners in Kerameikos do not feel as keen as those in Koukaki on presenting Airbnb as a blessing, as many of them note that the benefits of the platform are mainly felt by apartment owners and bigger supermarkets, which tourists trust for their supplies more easily. It must be noted that due to different pricing in Airbnb dwellings (Kerameikos is significantly more expensive than Koukaki) it makes sense a different blend of tourists to be visiting Kerameikos, therefore its consuming habits to be different as well. However, they do admit that increased traffic mostly benefits them in a trickle-down fashion. However, many express the concern that Airbnb takes away their clientele, increases rents, and limits the number of available business spaces (even though this problem is not half as extensive as in Koukaki). Last, they also notice the negative impact on hotels.

In total, the different blend of tourists visiting each neighborhood, the different type of gentrification each area undergoes and the different phase it currently is at, and distinct traits each neighborhood has, all constitute factors that make interviewees answer differently. House and business space rents increase exponentially in Koukaki, and the extent of touristification is immense there; business owners are benefited but residents worry and workers feel the impact on their working conditions. On the other hand, people in Kerameikos view Airbnb more cool and even value cultural exchange with tourists; however, displacement and the tightening housing markets are apparent there as well, making interviewees equally concerned compared to those in Koukaki, even though those in Kerameikos one could say are already gentrifiers. In the case of the latter being displaced due to touristification in Kerameikos, we could later assume that a transition of Kerameikos into a new period of gentrification, with the influx of even more affluent dwellers and the further increase in land values, has taken place. Actually, land values levels in Kerameikos, as reflected upon Airbnb prices per night (Kerameikos is the most expensive area of Athens in this aspect) must not be disregarded; touristification is clearly capitalizing upon hitherto gentrification there.

ANNEX V: Additional maps of the research areas[42]

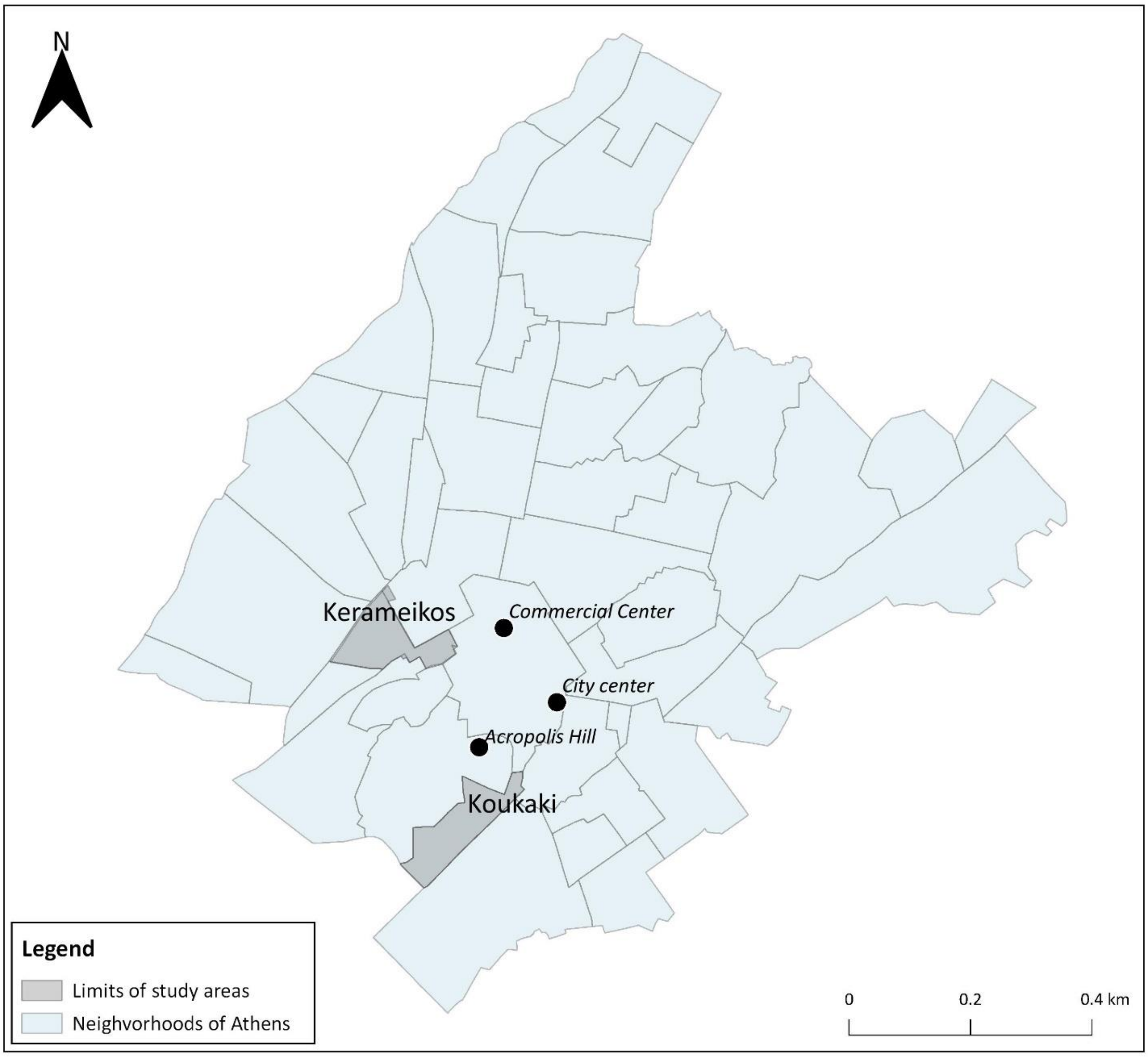

Figure V.1: The position of the study areas within the municipality of Athens

[42] Figures V.2 until V.9 have been created with the assistance of Marios Batsaris and Anna Saroukou

Koukaki

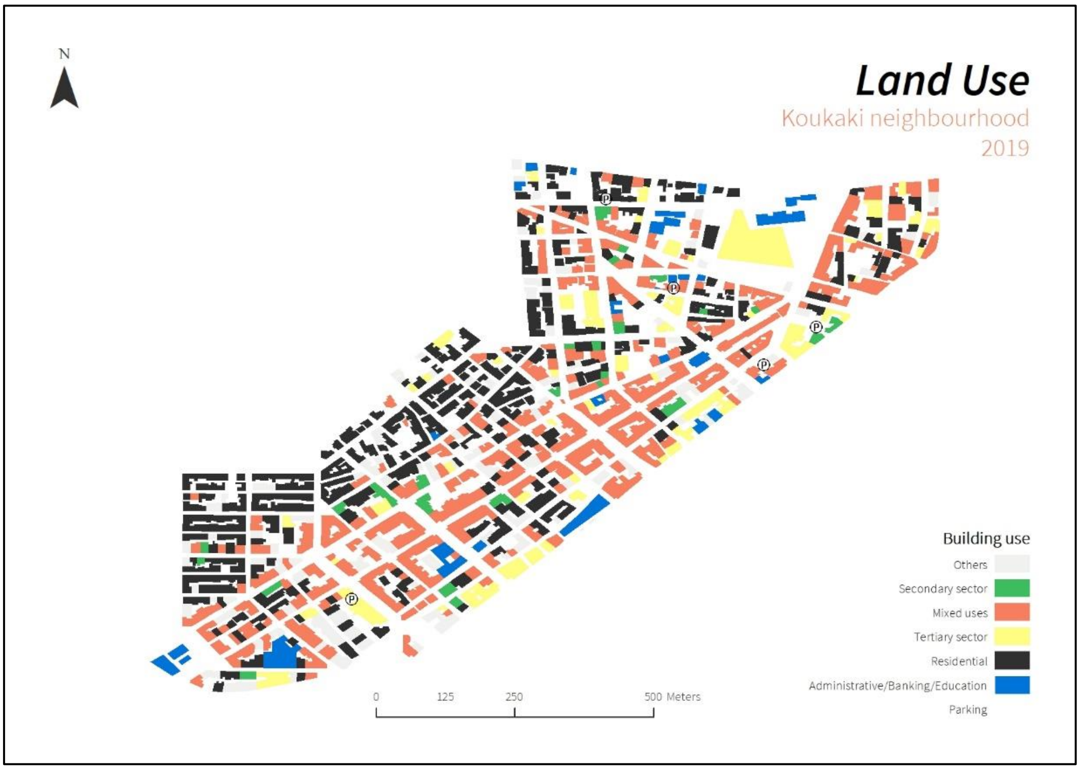

Figure V.2: Land uses in Koukaki, 2018
Source: Fieldwork

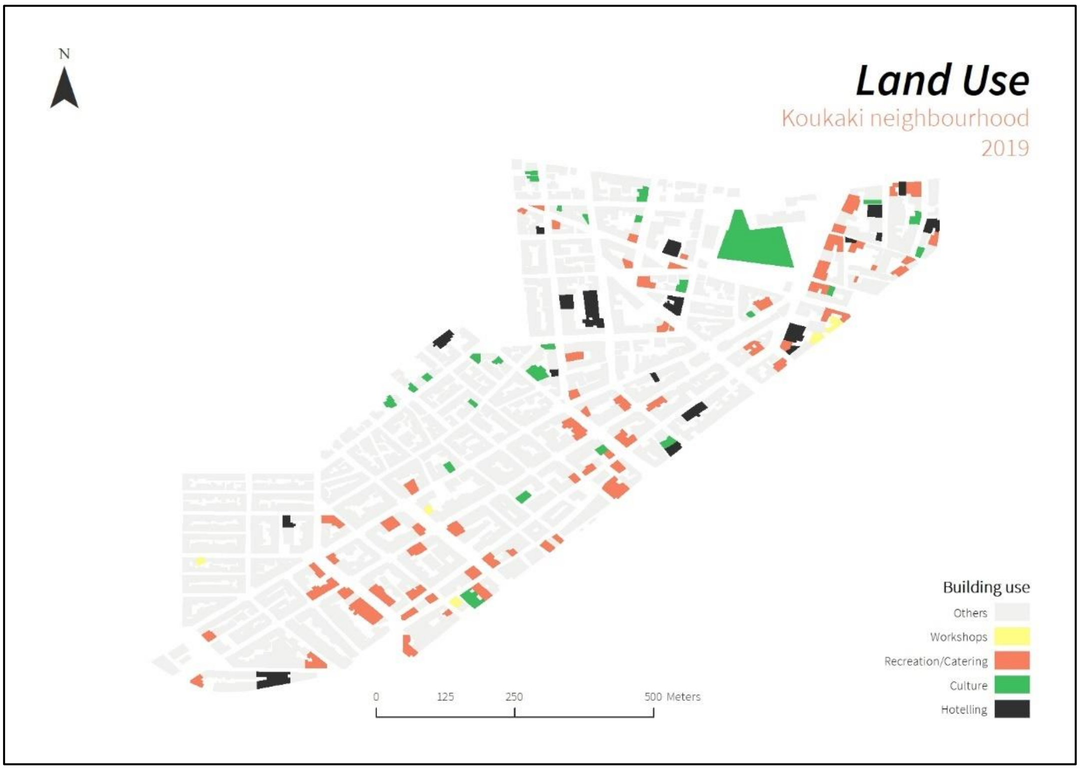

Figure V.3: Culture- and tourism-related land uses in Koukaki, 2018
Source: Fieldwork

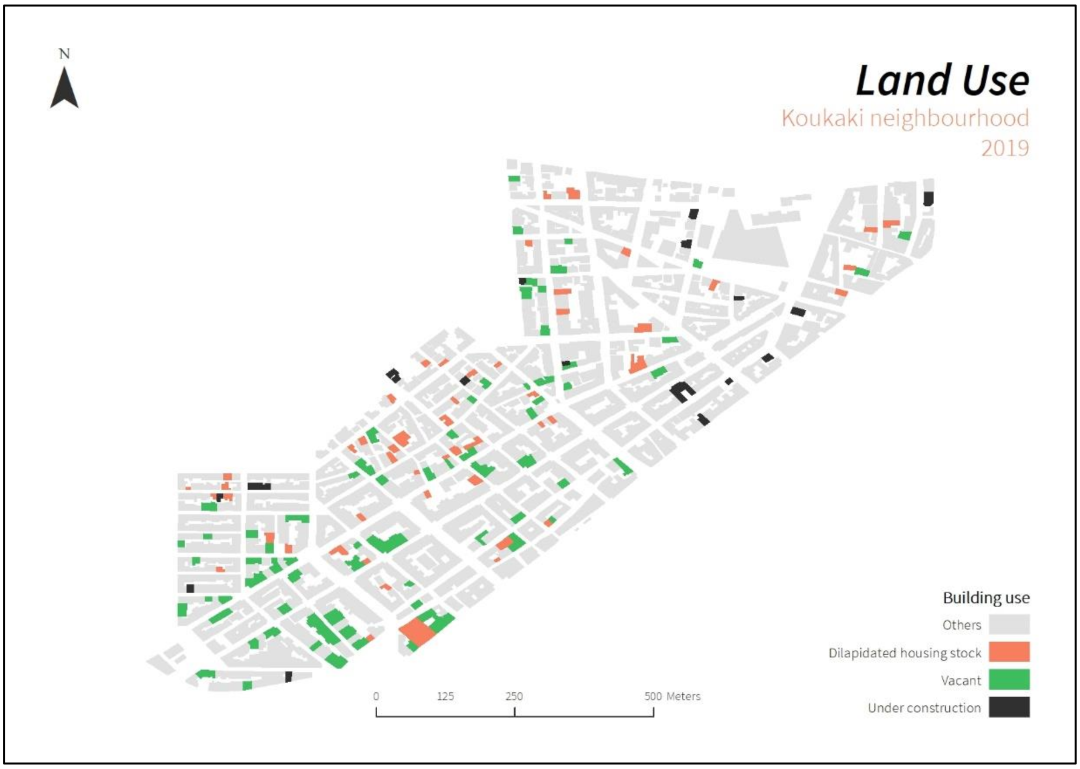

Figure V.4: Dilapidated, vacant, and currently under construction buildings in Koukaki, 2018
Source: Fieldwork

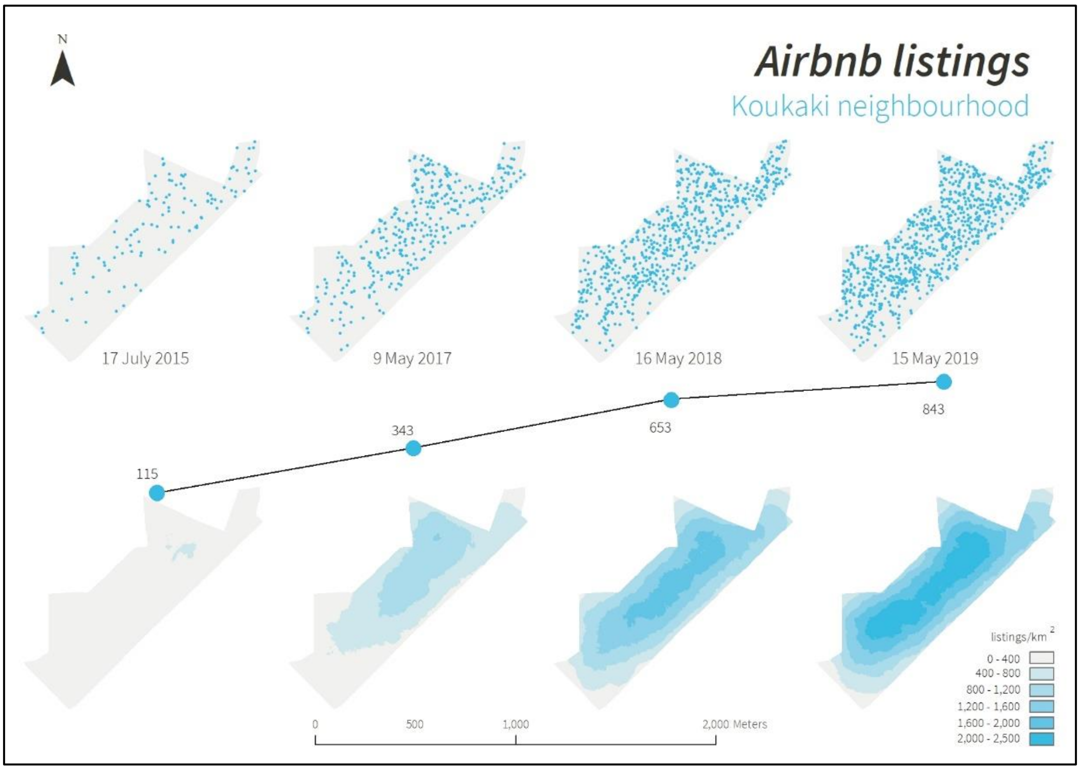

Figure V.5: The evolution of Airbnb listings in Koukaki, points and densities, 2015-2019
Source: www.insideairbnb.com, own processing

Kerameikos

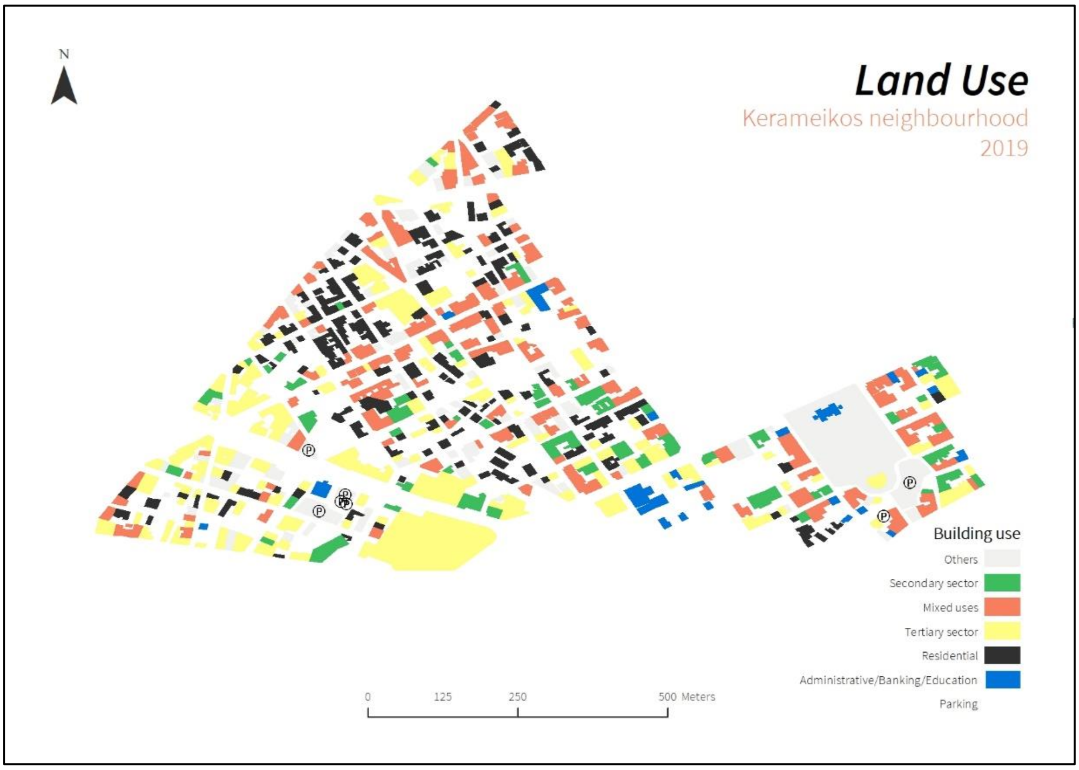

Figure V.6: Land uses in Kerameikos, 2018
Source: Fieldwork

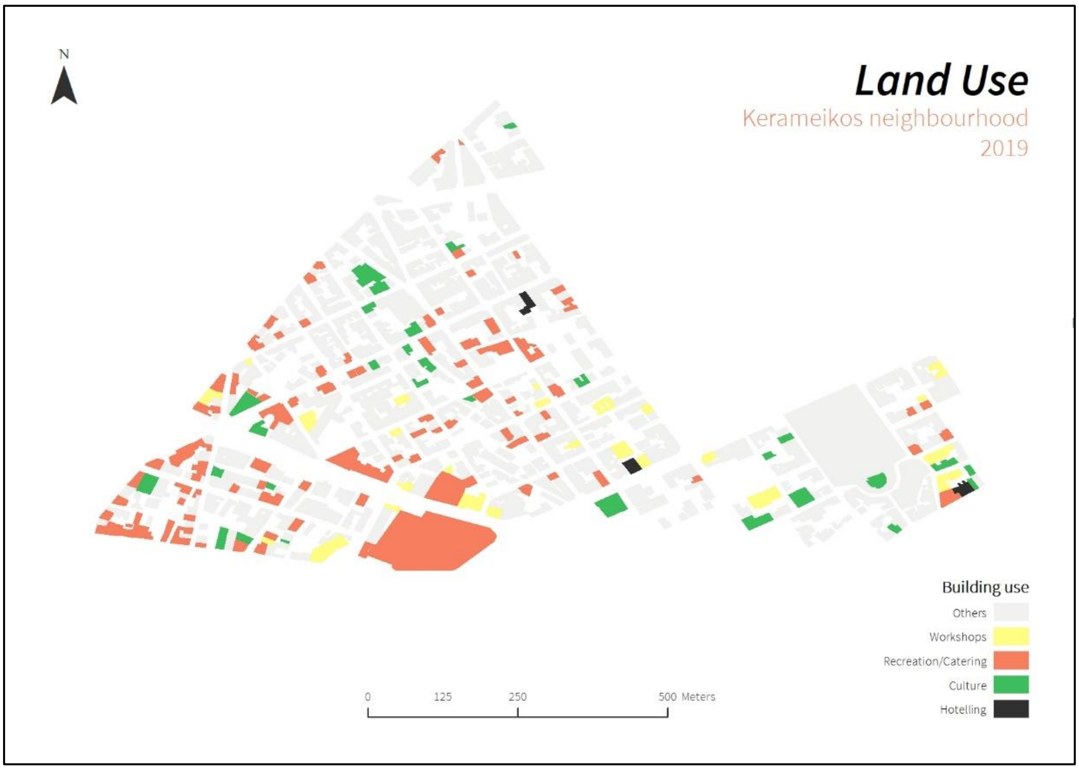

Figure V.7: Culture- and tourism-related land uses in Kerameikos, 2018
Source: Fieldwork

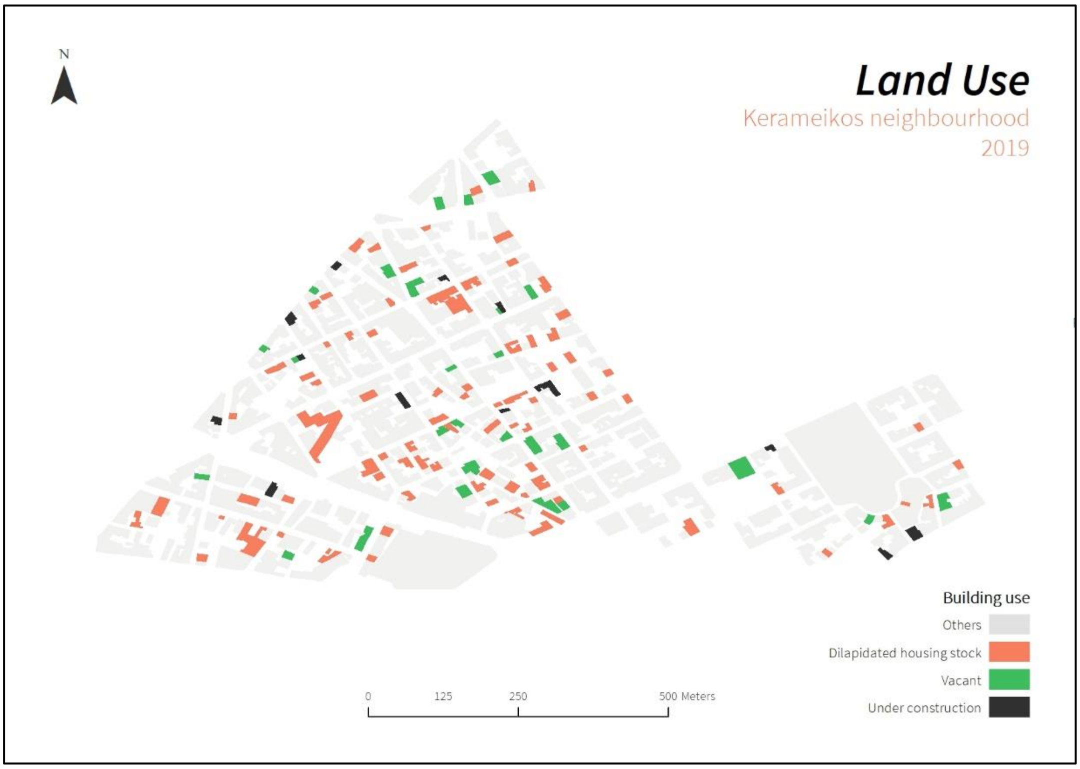

Figure V.8: Dilapidated, vacant, and currently under construction buildings in Kerameikos, 2018
Source: Fieldwork

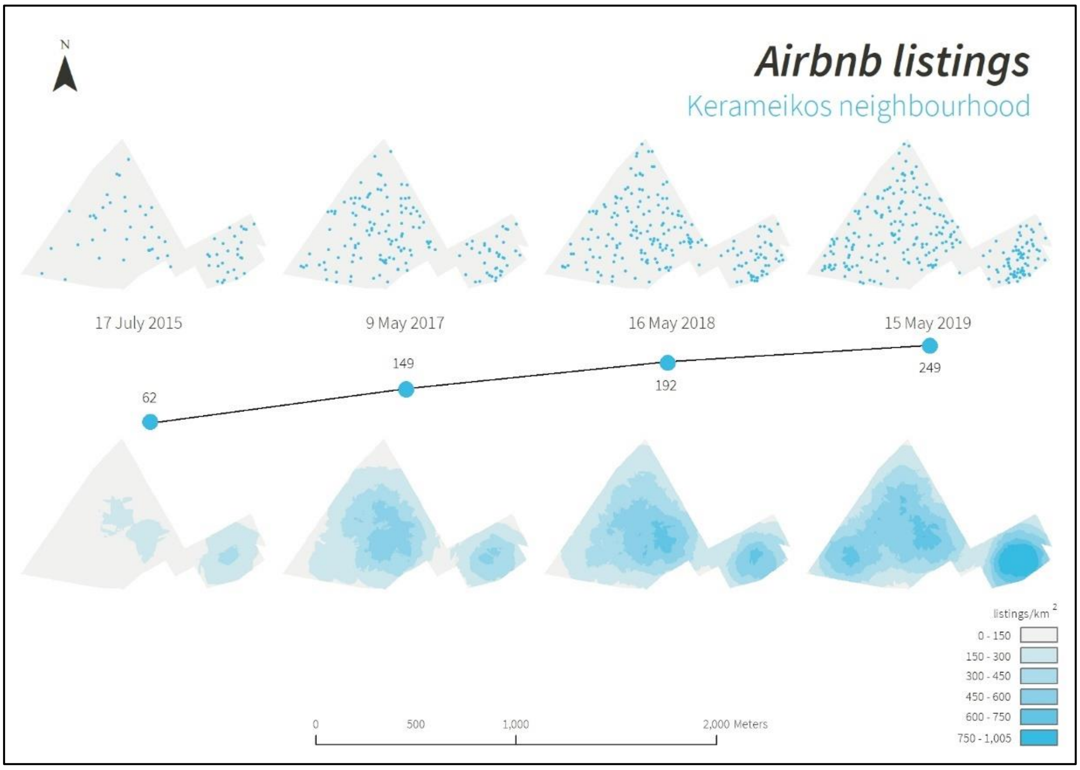

Figure V.9: The evolution of Airbnb listings in Kerameikos, points and densities, 2015-2019
Source: www.insideairbnb.com, own processing