"Contagion effects in the government bond markets. Evidence from the EMU 2.0 crisis"

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Athens 2016

ΔΗΛΩΣΗ ΕΚΠΟΝΗΣΗΣ ΜΕΤΑΠΤΥΧΙΑΚΗΣ ΕΡΓΑΣΙΑΣ

«Δηλώνω υπεύθυνα ότι η συγκεκριμένη μεταπτυχιακή εργασία για τη λήψη του Μεταπτυχιακού Διπλώματος Ειδίκευσης στη Διοίκηση Επιχειρήσεων, έχει συγγραφεί από εμένα προσωπικά και δεν έχει υποβληθεί ούτε έχει εγκριθεί στο πλαίσιο κάποιου άλλου μεταπτυχιακού ή προπτυχιακού τίτλου σπουδών, στην Ελλάδα ή στο εξωτερικό.

Η εργασία αυτή έχοντας εκπονηθεί από εμένα, αντιπροσωπεύει τις προσωπικές μου απόψεις επί του θέματος. Οι πηγές στις οποίες ανέτρεξα για την εκπόνηση της συγκεκριμένης μεταπτυχιακής αναφέρονται στο σύνολό τους, δίνοντας πλήρεις αναφορές στους συγγραφείς, συμπεριλαμβανομένων και των πηγών που ενδεχομένως χρησιμοποιήθηκαν από το διαδίκτυο».

Ονοματεπώνυμο **Υπογραφή**

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ΠΕΡΙΛΗΨΗ

Ορισμός της «μόλυνσης» κατά τη μετάδοση της παγκόσμιας οικονομικής κρίσης.

Η λέξη «μόλυνση» εμφανίζεται για πρώτη φορά στην βιβλιογραφία με το ξέσπασμα της «Ασιατικής γρίπης» και του «Ρωσικού ιού» για να περιγράψει τα φαινόμενα διάδοσης και διάχυσης της οικονομικής κρίσης. Μέχρι σήμερα ένα μεγάλο μέρος της διεθνούς βιβλιογραφίας ασχολείται με την μελέτη των φαινομένων αυτών, παρόλα αυτά δεν υπάρχει αμφιβολία ότι λόγω της έντασης και του βάθους της παγκόσμιας κρίσης που έχει ξεσπάσει τα τελευταία χρόνια η ανάγκη για συστηματικότερη και διεξοδικότερη μελέτη των μηχανισμών με τους οποίους μεταδίδεται η κρίση κρίνεται εξόχως σημαντική. Η κρίση που ξέσπασε το 2008 και απλώθηκε σχεδόν ακαριαία σε όλη την υφήλιο, μπορεί να συγκριθεί μόνο με την μεγαλη ύφεση του 1929. Ενώ μεγάλο κομμάτι της έρευνας επικεντρώνεται στα κανάλια διάδοσης της κρίσης, λίγο φως έχει πέσει στους τρόπους με τους οποίους μπορεί αυτή να αντιμετωπιστεί.

Ένας άλλος σημαντικός παράγοντας είναι η ταχύτητα με την οποία μεταδίδεται η κρίση από το επίκεντρό της προς την περιφέρεια, καθώς και η διάκριση σε αναμενόμενες και μη αναμενόμενες επιπτώσεις, αφού οι πρώτες μπορούν να προβλεφθούν και να αντιμετωπιστούν ενώ οι άλλες είναι απρόβλεπτες. Όταν οι αγορές αλληλεπιδρούν με δομικό και θεμελιώδη τρόπο, θα περίμενε κανείς ότι η έξοδος από την κρίση στην αγορά στην οποία αυτή ξέσπασε αρχικά θα οδηγούσε και τις υπόλοιπες σε μια πιο γρήγορη «θεραπεία». Σε κάθε περίπτωση η πλειοψηφία των ερευνητών διεθνώς συμφωνεί ότι η εξάπλωση της κρίσης του 2008 οφείλεται τόσο στους παράγοντες αλληλεπίδρασης και παγκοσμιοποίησης της οικονομίας, όσο και στα φαινόμενα μόλυνσης.

Είναι κοινώς αποδεκτό ότι οι αναδυόμενες οικονομίες στην Ανατολική Ευρώπη και Κεντρική Ασία (παρόλο ότι είναι σε μεγάλο βαθμό ετερογενείς), ανέκαμψαν ταχύτερα και σε μεγαλύτερο βαθμό απ΄ ότι οι ανεπτυγμένες οικονομίες, γεγονός που αναδυκνείει ανάγλυφα την σημασία να μελετηθούν και να αναλυθούν τα κανάλια και οι τρόποι διάδωσης, όχι μόνο των αρνητικών shock αλλά και αυτά των θετικών.

Οι Forbes και Rigobon (2002) διετύπωσαν τον πιο διαδεδομένο ορισμό για τη «μόλυνση»: Μια σημαντική αύξηση στην συσχέτιση μεταξύ αγορών, όταν εμφανίζεται

ένα ισχυρό σοκ σε μία ή σε περισσότερες χώρες. Με άλλα λόγια η μόλυνση εμφανίζεται όταν η συσχέτιση μεταξύ δύο αγορών μεγιστοποιείται μετά από ένα ισχυρό σοκ σε μία απ΄ αυτές, ενώ όταν η συχέτιση είναι ισχυρή στις περιόδους ομαλότητας μιλάμε για φαινόμενα αλληλεπίδρασης και παγκοσμιοποίησης. Σε κάθε περίπτωση η μόλυνση είναι η υπερβάλλουσα συσχέτιση και εναρμόνιση δύο αγορών, σε σχέση με τις προβλέψεις των διαφόρων μοντέλων.

Η μελέτη και η ανάλυση της μετάδοσης της μόλυνσης έχει ισχυρό αντίκτυπο στην χάραξη των μακροοικονομικών πολιτικών.

1. Βοηθά στην χάραξη νομισματικής και δημοσιονομικής πολιτικής.

2. Βοηθά στην κατανόηση των διεργασιών που λαμβάνουν χώρα σε μια μεγάλη πολιτικο-οικονομική ένωση όπως η Ευρωπαική Ένωση, καθώς αποτελείται από κράτη μέλη με ιδιαιτερότητες και διαφορές μεταξύ τους.

3. Βελτιώνει τους στόχους και τις στρατηγικές συμμαχίες των κρατών σε ότι αφορά το διεθνές εμπόριο και τις γενικότερες συνεργασίες.

4. Βελτιώνει την κατανόηση και ανάλυση των όρων όπως παγκοσμιοποίηση, και αλληλεπίδραση στην διεθνοποιημένη οικονομία.

Η μετάδοση της κρίσης στις αναδυόμενες αγορές.

Την περίοδο 2007-2009 η παγκόσμια χρηματοοικονομική κρίση ήταν μια αλυσιδωτή αντίδραση του πιστωτικού κινδύνου που εμπεριείχετο στα χρηματοοικονομικά εργαλεία και πυροδοτήθηκε από την κρίση ρευστότητας στο τραπεζικό σύστημα των Ηνωμένων Πολιτειών. Ήταν ο συνδυασμός τριών σύνθετων χρηματοοικονομικών εργαλείων : Τιτλοποιημένα στεγαστικά δάνεια, Ενεχυριασμένα χρεόγραφα (CDO) και Συμφωνίες ανταλλαγής πιστωτικού κινδύνου (CDS), τα οποία οδηγησαν στην πιστωτική κρίση στην στεγαστική αγορά των Ηνωμένων Πολιτειών, η οποία αργότερα εξαπλώθηκε παγκοσμίως. Η κυριότερη διαφορά της σχετικά με τις προηγούμενες κρίσεις, όπως το 1997-1998 η Ασιατική κρίση, το 1998 η Ρωσική κρίση ή το 1999 η κρίση της Βραζιλίας, είναι ότι η κρίση του 2007-2009 προήλθε από τη μεγαλύτερη και πιο επιδραστική οικονομία του κόσμου, αυτή των Ηνωμένων Πολιτειών, και σύντομα εξαπλώθηκε σε όλες τις αγορές παγκοσμίως

Είναι καθολικά αποδεκτό ότι οι αγορές διεθνώς αντιδρούν άμεσα και ακαριαία σε επίπεδο τιμών και διακύμανσης, κατά τις μεγάλες χρηματοοικονομικές κρίσεις.

Ωστόσο η ταχύτητα και το μέγεθος των επιδράσεων αυτών, καθώς και ο ρυθμός με τον οποίον ανακάπτουν οι αγορές διαφέρουν μεταξύ τους, γεγονός που έχει μεγάλη επίπτωση στην τιμολόγηση των τίτλων διεθνώς, τη διαχείριση μεγάλων χαρτοφυλακίων και την αντιστάθμιση του κινδύνου.

Εν τω μεταξύ, είναι ιδιαίτερα χρήσιμο να εξετάσουμε την επίδαρση της παγκόσμιας χρηματοοικονομικής κρίσης στις χώρες BRICS (Brazil, Russia, India, China, South Africa), καθώς θεωρούνται η ατμομηχανή της παγκόσμιας οικονομίας και οι αγορές τους είναι η πρώτη επιλογή των διαχειριστών παγκοσμίως για διαφοροποίηση των χαρτοφυλακίων τους. Οι αγορές των Ηνωμένων Πολιτειών και των BRICS συνδέονται άρρηκτα με τις διακυμάνσεις τους. Η αλληλεπίδραση αυτή εξηγεί το γεγονός ότι οι αλλαγές στη διακύμανση στις αγορές των BRICS μπορεί να ερμηνευτεί μόνο λαμβάνοντας υπόψη τις αντίστοιχες μεταβολές στην αγορα των ΗΠΑ, καθώς και ότι συμβάλλει στην ακρίβεια των προβλέψεων.

Μετάδοση του ρίσκου των κρατικών ομολόγων στη ζώνη του Ευρώ.

Στα τέλη του 2009, καθώς η παγκόσμια οικονομία έβγαινε από την Μεγάλη Ύφεση, η κρίση εθνικού χρέους χτυπούσε την Ευρώπη με απίστευτη ορμή και μένος. Φόβοι για εθνική χρεοκοπία τελικά εμφανίστηκαν σε ένα κράτος της Ευρωπαικής περιφέρειας, την Ελλάδα, αλλά σύντομα εξαπλώθηκε και σε άλλα Ευρωπαικά κράτη, ανάγκάζοντας τα κέντρα αποφάσεων να πάρουν τολμηρά και πολλές φορές ακραία μέτρα για να εμποδίσουν την μόλυνση να εξαπλωθεί.

Η εθνική κρίση μεταδίδεται εκτός συνόρων διαμέσου πολλών καναλιών. Σημαντικό ρόλο παίζουν οι οικονομικοί δεσμοί μεταξύ των κρατών και ιδιαίτερα η έκεθση των τραπεζών στα κρατικά ομόλογα. Μια εθνική κρίση χρέους που σοβούσε στην Ελλάδα θα μεταδιδόταν με μεγαλύτερη ένταση στο τραπεζικό σύστημα των άλλων Ευρωπαικών κρατών, όσο περισσότερο αυτές ήταν εκτεθειμένες στο Ελληνικό χρέος.

Έχει παρατηρηθεί ότι μια αύξηση κατά 1% στο ασφάλιστρο κινδύνου των Ελληνικών CDS, οδηγεί σε αύξηση κατά 0,275% στο αντίστοιχο μέσο Ευρωπαικό, γεγονός που υποννοεί σημαντικό βαθμό μετάδοσης. Τα φαινόμενα αυτά είναι έντονα και οδηγούν σε πιο μόνιμες επιπτώσεις σε όλα τα κράτη.

Υπάρχουν διάφοροι τύποι οικονομικών δεσμών, όπως η έκθεση στο δημόσιο χρέος και ο διατραπεζικός δανεισμός. Υπάρχουν έντονες ενδείξεις ότι η έκθεση στο δημόσιο χρέος αποτελεί σε όρους οικονομικούς και στατιστικούς σημαντικό κανάλι μετάδοσης της κρίσης, ενώ ο διατραπεζικός δανεισμός δεν φαίνεται να παίζει στατιστικά σημαντικό ρόλο.

Όπως έχουμε αναφέρει, η μόλυνση διακρίνεται σε θεμελιώδη και μη θεμελιώδη, με τη δεύτερη να εξαρτάται από παράγοντες που δεν είναι άμεσα ανιχνεύσιμοι. Τέλος η μετάδοση της μόλυνσης μπορεί να συμβεί, εάν η εμφάνιση ενός σοκ σε ένα κράτος επηρρεάζει τις εκτιμήσεις της αγοράς όσον αφορά τις πολιτικές οικονομικής και πολιτικής συνεργασίας. Στην περίπτωση του ευρώ θα λέγαμε ότι τα νέα που προέρχονταν από την Ελλάδα επιβεβαίωναν την πεποίθηση των επενδυτών ότι τα υπόλοιπα Ευρωπαικά κράτη θα παρείχαν εγγυήσεις για το χρέος των ασθενέστερων κρατών, συμβάλλοντας με αυτόν τον τρόπο στην περαιτέρω εξάπλωση της μόλυνσης.

Είναι γενικώς αποδεκτό ότι ένα σοκ εθνικού χρέους σε ένα κράτος αντανακλά έντονα στα κράτη αυτά που είναι άμεσα εκτεθειμένα στο χρέος αυτό. Αντίθετα η σχέση μεταξύ των εμπορικών δεσμών και σχέσεων δύο κρατών και της μετάδοσης της κρίσης μεταξύ τους παραμένει στατιστικά πολύ ασθενής. Ταυτόχρονα ένα σημαντικό μέρος της μετάδοσης της κρίσης δεν ερμηνεύεται με την υπάρχουσα θεωρία, ειδικά για χώρες όπως η Ισπανία και η Πορτογαλία, γεγονός που υποδηλώνει ότι υπάρχουν και άλλα κανάλια μετάδοσης της κρίσης, εκτός απ΄ αυτά που γνωρίζουμε.

Όπως είναι φυσικό, όσο πιο ευάλωτη είναι μια οικονομία, τόσο πιο μεγάλος είναι ο βαθμός μετάδοσης της Ελληνικής κρίσης. Ειδικά οι τράπεζες σε πιο ευάλωτες χώρες ανταποκρίνονται πιο έντονα στα σοκ που προέρχονται από την Ελλάδα. Στην περίπτωση δε που οι συγκεκριμένες χώρες εμπλέκονται στο μηχανισμό στήριξης της Ελλάδας, τότε οι απώλειές τους από Ελληνικούς τίτλους είναι ακόμη βαθύτερες. Και βέβαια υπάρχουν και οι έμεσοι τρόποι μετάδοσης της κρίσης. Για παράδειγμα εάν η Γαλλία είναι εκτεθειμένη στο Ελληνικό χρέος ενώ η Ισπανία όχι, εντούτοις η κρίση μεταδίδεται και στην Ισπανία, λόγω της έκθεσης των Ισπανικών τραπεζών στις Γαλλικές.

Τα διεθνή κανάλια τραπεζικού δανεισμού, την περίοδο της κρίσης.

Το περιβάλλον που χαρακτηρίζει μια οικονομική κρίση είναι αυτό του φόβου, της αβεβαιότητας και του πανικού. Για μια τράπεζα στο διεθνές πεδίο αυτό μεταφράζεται σε υψηλή αβεβαιότητα στα στοιχεία του ενεργητικού της, έντονη διακύμανση στην πρόσβασή της στη διατραπεζική αγορά ρευστότητας και υποβάθμιση της αξιολόγησης και της φερεγγυότητας της. Αυτά τα τρία κανάλια – της αβεβαιότητας, της ρευστότητας και της φερεγγυότητας – αντανακλούν με τη σειρά τους τη ροή της χρηματοδότησης των οικονομιών. Για το λόγο αυτό είναι κρίσιμο να εξετάσουμε τους τρόπους με τους οποίους τα τρία αυτά κανάλια, σε διεθνές επίπεδο, επηρρεάζουν τον διατραπεζικό δανεισμό από τα ανεπτυγμένα κράτη προς τα αναπτυσσόμενα κατά τη διάρκεια της κρίσης του 2007-2009.

Για παράδειγμα, εάν η πρόσβαση σε ρευστότητα είναι περιορισμένη, τότε η εγχώρια κεντρική τράπεζα μπορεί να χαλαρώσει τους περιορισμούς της ή να προβεί σε συμφωνίες ανταλλαγής συναλλάγματος προκειμένου να παρέχει στις εμπορικές τράπεζες την απαραίτητη ρευστότητα (last resort lending). Αντιθέτως εάν το πρόβλημα είναι φερεγγυότητας τότε η πολιτική και οι ρυθμίσεις της κεντρικής τράπεζας θα είναι προς την κατεύθυνση της μείωσης των μη εξυπηρετούμενων δανείων.

Τα περισσότερα ευρήματα κατατείνουν στο γεγονός ότι κατά τη διάρκεια της κρίσης, τα προβλήματα ρευστότητας των τραπεζών καθώς και της αβεβαιότητας ήταν τα κυριότερα κανάλια μέσω των οποίων επηρρεάστηκε ο δανεισμός των τραπεζών από τα ανεπτυγμένα προς τα αναπτυσσόμενα κράτη. Περαιτέρω η ευαισθησία των τραπεζών σε αυτούς τους παράγοντες δεν φάνηκε να αλλάζει κατά τη διάρκεια της κρίσης. Η επίδραση της κρίσης στον δανεισμό των τραπεζών ήταν μια αναμενόμενη αντίδραση στις αλλαγές που επήλθαν στην διατραπεζική ρευστότητα και την οικονομική αβεβαιότητα, παρά στην αλλαγή της ικανότητας πρόσβασης των τραπεζών στα διαθέσιμα κεφάλαια. Πάντως οι Ευρωπαικές τράπεζες φαίνεται να είναι πιο ευαίσθητες στις συνθήκες της αγοράς, τα χρόνια που η κρίση ήταν στο αποκορύφωμά της, σε σχέση με αυτές στις Ηνωμένες Πολιτείες.

Σημαντικό ρόλο παίζει η παρουσία ξένων τραπεζών στην χρηματοδότηση της οικονομίας, ιδιαίτερα στις αναπτυσσόμενες αγορές, όπως στην Λατινική Αμερική ή στις Ινδίες, όπου η πρόσβαση σε πίστωση και σε κεφάλαια τόσο των μικρών όσο και των μεγαλυτέρων επιχειρήσεων είναι ιδιαίτερα σημαντική. Οι ξένες τράπεζες επέδειξαν μια μεγαλύτερη ικανότητα να διατηρήσουν την πιστοληπτική τους ικανότητα, σε σχέση με τις εγχώριες, κατά τη διάρκεια της κρίσης.

Σε συνθήκες πιστωτικού περιορισμού δημιουργείται ένα χάσμα μεταξύ του κόστους των εξωτερικών κεφαλαίων που μπορεί να δανειστεί μια τράπεζα και του κόστους των εσωτερικών κεφαλαίων ευκαιρίας. Κατά τη διάρκεια μιας οικονομικής κρίσης το κόστος των διαθέσιμων κεφαλαίων αυξάνεται, με αποτέλεσμα, όσο πιο μεγάλη είναι αυτή η διαφορά τόσο πιο δύσκολη είναι η δυνατότητα δανεισμού, μειώνοντας έτσι τα ποσά που μια τράπεζα μπορεί να δανειστεί. Το φαινόμενο αυτό λέγεται κρίση ρευστότητας και είναι ένα από τα τρία σημαντικά κανάλια μετάδοσης της κρίσης των τραπεζών.

Ένας άλλος τρόπος με τον οποίο επηρεάζεται ο τραπεζικός δανεισμός, είναι η επιδείνωση των ισολογισμών των τραπεζών, λόγω της κρίσης. Αυτό με τη σειρά του οδηγεί στην αύξηση του κόστους των δανειζόμενων κεφαλαίων, καθώς η πιστοληπτική ικανότητα των τραπεζών υποχωρεί διεθνώς. Ένα υψηλότερο επιτόκιο δανεισμού μειώνει την καθαρή αξία της τράπεζας, με συνέπεια την ακόμη πιο δύσκολη πρόσβαση στα κεφάλαια παγκοσμίως. Το φαινόμενο αυτό καλείται κρίση φερεγγυότητας ή πιστοληπτική κρίση και αποτελεί ένα εξίσου σημαντικό κανάλι μετάδοσης της τραπεζικής κρίσης.

Τέλος, η γενικότερη αβεβαιότητα και η ατελής πληροφόρηση έχουν σαν αποτέλεσμα οι τράπεζες να μην είναι θωρακισμένες απέναντι στον πιστωτικό κίνδυνο. Η αύξηση των επιτοκίων στα δάνεια που έχουν χορηγήσει δεν αρκεί να τις προστατέψει απέναντι στους στρατηγικούς κακοπληρωτές, ενώ τα αναμενόμενα κέρδη τους είναι σημαντικά χαμηλότερα. Η μείωση της κερδοφορίας τους, λόγω της αύξησης της αβεβαιότητας, έχει κι αυτή σαν αποτέλεσμα την ανάγκη για μεγαλύτερο δανεισμό με δυσμενέστερους όρους, συμβάλοντας με τη σειρά της στην διάδοση της κρίσης, μέσω της γενικότερης αβεβαιότητας.

Η γεωγραφία της κρίσης.

Την τελευταία δεκαετία μεγάλη συζήτηση έχει γίνει σχετικά με την ικανότητα των διαφόρων οικονομικών παραγόντων να σταματήσουν τη διάδοση της κρίσης εντός των συνόρων. Εκτός από τις τράπεζες ιδαίτερη προσοχή έχει δοθεί στην παγκόσμια αγορά κεφαλαίων, καθώς πλέον θεωρείται σημαντικός παράγων μετάδοσης της μόλυνσης. Παρατηρούνται έντονα φαινόμενα διαφοροποίησης στη μετάδοση της κρίσης, αλλά και στο βαθμό ανάκαμψης, για διάφορες χώρες και διάφορες οικονομίες.

Το ερώτημα που εγείρεται είναι: Ποιά είναι η γεωγραφία της μετάδοσης της κρίσης; Πού μεταδίδεται η μόλυνση; Παρόλο που οι μέχρι τώρα έρευνες υποδεικνύουν τις αναπτυσσσόμενες χώρες να είναι πιο ευάλωτες στην μόλυνση, εντούτοις πρόσφατα ευρήματα φανερώνουν ότι δεν είναι πάντα σαφές ποιες οικονομίες επηρεάζονται περισσότερο. Τα περισσότερα κράτη φαίνεται να βρίσκονται σε μια δυναμική ισορροπία μεταξύ τους, όσον αφορά στις μετοχικές και ομολογιακές ροές, συμπεριλαμβανομένων και των ανεπτυγμένων οικονομιών.

Επίσης τα φαινόμενα οικονομικής αλληλεπίδρασης και μετάδοσης τόσο των αρνητικών, όσο και των θετικών σοκ παρατηρούνται ταυτόχρονα στις αγορές μετοχών και ομολόγων. Παρόλο που τα κύματα αυτά συντονισμού έχουν την αφετηρία τους στις ανεπτυγμένες οικονομίες, τελικά η χρηματοδότηση των λιγότερο ανεπτυγμένων κρατών φαίνεται να επηρεάζεται περισσότερο από την κρίση.

Τέλος ιδιαίτερα σημαντικό ρόλο στην εξάπλωση της κρίσης παίζουν το επίπεδο του πολιτικού ρίσκου, της χώρας που εκδίδει το χρέος, καθώς και η απόσταση μεταξύ του εκδότη και του αποδέκτη. Όσο μεγαλύτερο είνα το πολιτικό ρίσκο και η απόσταση, τόσο οι επενδυτές έχουν την τάση να μειώνουν την έκθεσή τους στο συγκεκριμένο χρέος.

Γιατί είναι όμως μερικές χώρες πιο ευαίσθητες στην μετάδοση της παγκόσμιας κρίσης από άλλες; Με άλλα λόγια τι είναι αυτό που κάνει τους επενδυτές ανυπόμονους να εισέλθουν (ή να εξέλθουν) σε μία χώρα, όταν οι συνθήκες βελτιώνονται (ή χειροτερεύουν αντίστοιχα); Επτά είναι οι παράγοντες που καθορίζουν αυτή την συμπεριφορά:

1. Το νομοθετικό πλαίσιο και η προστασία των επενδυτών
2. Η πολιτική σταθερότητα της χώρας
3. Η διαφάνεια, η σωστή διακυβέρνηση και η λογοδοσία σε εταιρικό επίπεδο
4. Η ασφάλεια των κεφαλαίων
5. Η ελαχιστοποίηση του οικονομικού ρίσκου
6. Οι δημόσιες επενδύσεις
7. Η απόσταση

Έχει σημασία να εξετάσουμε εάν οι κινήσεις κεφαλαίων σε παγκόσμιο επίπεδο οφείλονται σε εξωτερικούς παράγοντες που «σπρώχνουν» τους επενδυτές προς τα έξω ή σε εσωτερικούς παράγοντες που τους τραβούν προς τα «μέσα». Συγκεκριμένα το πιεστικό χρηματοοικονομικό τοπίο, τα μακροοικονομικά νέα και το επίπεδο των επιτοκίων στις ανεπτυγμένες αγορές, λειτουργούν ως παράγοντες πίεσης που ωθούν τους διεθνείς επενδυτές να αυξήσουν την έκθεσή τους προς διεθνείς αγορές.

Αντίθετα παράγοντες όπως η πολιτική σταθερότητα και η απόσταση δρουν ως ελκτικοί παράγοντες ώστε οι επενδυτές να παραμείνουν στο εσωτερικό της χώρας.

Συμπερασματικά θα λέγαμε ότι υπάρχουν ισχυρές ενδείξεις για την εξάπλωση της κρίσης παγκοσμίως. Όταν οι συνθήκες της οικονομίας στις ανεπτυγμένες αγορές αλλάζουν, η χρηματοδότηση των αναπτυσόμενων αγορών γίνεται δυσχερής. Σε γενικές γραμμές οι φυγόκεντρες δυνάμεις που οδηγούν τους επενδυτές στις ανεπτυγμένες αγορές κατά τη διάρκεια της κρίσης, έχουν άμεσο αντίκτυπο στις αναπτυσσόμενες χώρες. Η έννοια της μετάδοσης της μόλυνσης έχει να κάνει με τη δομή αυτής καθαυτής της βιομηχανίας της οικονομίας. Για παράδειγμα, ο βαθμός της μετάδοσης της κρίσης παγκοσμίως, σχετίζεται άρρηκτα με τα προσφάτως εμφανιζόμενα «παγκόσμια κεφάλαια» που επενδύουν ταυτόχρονα σε ανεπτυγμένες οικονομίες, αλλά και σε ανεπτυσσόμενες αγορές. Τέλος, φαίνεται ότι στις αγορές μετοχών παγκοσμίως, υπερτερούν τα κεφάλαια από περιφερειακά κράτη, ενώ στις αντίστοιχες αγορές ομολόγων φαίνεται να υπάρχει μια διαχωριστική γραμμή: Το σύνολο των κεφαλαίων επενδύεται είτε σε αναπτυσσόμενες αγορές (high-yield bond funds), είτε σε ανεπτυγμένες οικονομίες (low-yield bond funds). Το γεγονός αυτό υπονοεί ότι οι managers και οι διαχειριστές μεγάλων χαρτοφυλακίων προβλέπουν και προεξοφλούν προς ποια κατεύθυνση θα κινηθεί η κρίση, τοποθετώντας ανάλογα τα κεφάλαιά τους.

Συμπεράσματα από την αγορά Ελληνικών κρατικών ομολόγων.

Από την υιοθέτηση του κοινού νομίσματος, του ευρώ (European Monetary Union EMU), τα κράτη μέλη της νομισματικής ένωσης απολαμβάνουν μια σύγκλιση στα μακροπρόθεσμα επιτόκιά τους. Δημιουργήθηκαν μεγάλες προσδοκίες στα κράτη της περιφέρειας, όπως η Ελλάδα, η Πορτογαλία και η Ιρλανδία για βιώσιμη οικονομική ανάπτυξη, λόγω της πολιτικής και οικονομικής σταθερότητας, την οποία το κοινό νόμισμα εγγυόταν. Η κοινή νομισματική πολιτική περιελάμβανε πολύ χαμηλά επιτόκια που καθόριζε η Κεντρική Ευρωπαική Τράπεζα (ECB), τα οποία με τη σειρά τους θα βασίζονταν στα πολύ χαμηλά επίπεδα πληθωρισμού στην Γερμανία. Έτσι οι χώρες με υψηλά επίπεδα πληθωρισμού εκείνη την εποχή, όπως η Ελλάδα, η Πορτογαλλία και άλλες επωφελήθηκαν στον τομέα της αξιοπιστίας. Ωστόσο η χαλαρή νομισματική πολιτική δεν επέτρεψε στις χώρες αυτές να συγκλίνουν τα επίπεδα των πληθωρισμών τους με το μέσο όρο της Ευρωζώνης. Το γεγονός αυτό είχε σαν αποτέλεσμα την έλλειψη ανταγωνιστικότητας και την επιδείνωση των δημοσιονομικών τους ελλειμάτων.

Το 2007 μετά την έκρηξη της φούσκας των στεγαστικών δανείων υψηλού ρίσκου στην αγορά των Ηνωμένων Πολιτειών, τα μακροπρόθεσμα επιτόκια αυξήθηκαν παγκοσμίως. Πολλοί οικονομολόγοι πιστεύουν ότι τα θεμελιώδη μακροοικονομικά δεδομένα της κάθε χώρας χωριστά, ήταν υπεύθυνα για αυτήν την αύξηση. Αντιθέτως άλλοι πιστεύουν ότι η αύξηση στη διακύμανση των Ευρωπαικών κρατικών ομολόγων ήταν απότέλεσμα της διάδοσης της μόλυνσης από την κρίση στην Ελλάδα. Η Ελλάδα ήταν η πρώτη χώρα που ζήτησε οικονομική βοήθεια από την Ευρωπαική Ένωση και το Διεθνές Νομισματικό Ταμείο, τον Μαίο του 2010. Τα διπλά ελλείματα της Ελλάδας, τόσο το δημοσιονομικό, όσο και το πολύ υψηλό χρέος, ως ποσοστό του ΑΕΠ, ήταν τα κύρια στοιχεία που απασχολούσαν τη διεθνή οικονομική κοινότητα, σχετικά με τη μετάδοση της κρίσης στα υπόλοιπα Ευρωπαικά κράτη.

Υπάρχουν διάφοροι ορισμοί της μετάδοσης της κρίσης στη διεθνή βιβλιογραφία καθώς και πολλοί οικονομετρικοί μέθοδοι για τον εντοπισμό της. Ορίζουμε την μετάδοση της κρίσης ως την απουσία του γραμμικού μηχανισμού μετάδοσης των μεταβολών στις διακυμάνσεις, καθώς και την πιθανότητα μεγιστοποίησης της συνδιακύμανσης μεταξύ δύο χωρών.

Σύμφωνα με την Παγκόσμια Τράπεζα, η μετάδοση της κρίσης συμβαινει όταν οι συνδιακυμάνσεις μεταξύ των κρατών κατά τη διάρκεια της κρίσης αυξάνονται σε σχέση με τις αντίστοιχες συνδιακυμάνσεις τον υπόλοιπο καιρό.

Τα αποτελέσματα των ερευνών δεν επιβεβαιώνουν την υπόθεση της μετάδοσης της κρίσης των δεκαετών Ελληνικών ομολόγων είτε προς τα κράτη της περιφέρειας, είτε προς τον πυρήνα της Ευρωζώνης. Αντιθέτως υπάρχει αποσύνδεση στην συνδιακύμανση μεταξύ των αποδόσεων των PIIGs (Portugal, Ireland, Italy, Greece and Spain) με τον πυρήνα των κρατών της Ευρωζώνης. Τα ευρήματα αυτά είναι σε πλήρη ευθυγράμμιση με προηγούμενα ευρήματα, πως πρώτη φορά από την υιοθέτηση του κοινού νομίσματος, οι ειδικοί των αγορών λάμβαναν υπόψη τα μακροοικονομικά μεγέθη κάθε κράτους για να αναλύουν και να εκτιμούν το χρέος κάθε χώρας ξεχωριστά.

Η σχέση μεταξύ της μείωσης των επενδύσεων και της αύξησης της ανεργίας στην ζώνη του Ευρώ

Ένα άκρως ανησυχητικό στοιχείο της Ευρωζώνης είναι η κατακόρυφη πτώση της επενδυτικής δραστηριότητας. Το ύψος των επενδύσεων, σαν ποσοστό του ακαθάριστου προϊόντος των οικονομιών του πυρήνα της Ευρώζώνης, παρουσιάζει μείωση της τάξης του 20% σε σχέση με το 2007, τη χρονιά πριν την έκρηξη της παγκόσμιας οικονομικής κρίσης. Αντίθετα, η επενδυτική δραστηριότητα σε άλλες οικονομίες όπως αυτή των ΗΠΑ, της Ιαπωνίας ή των εκτός Ευρώ κρατών έχει σταθερά, από το 2010 κι έπειτα, επανέλθει στα προ κρίσης επίπεδα. Το γεγονός ότι το επίπεδο επένδυσης, ως ποσοστό του ΑΕΠ, φθίνει στα κράτη της Ευρωζώνης, με εξαίρεση την περίπτωση της Γερμανίας, όπου το επίπεδο της επένδυσης έχει σχεδόν ανακτήσει τις προ κρίσης τιμές του, φανερώνει ότι η ένταση της επενδυτικής δραστηριότητας διαφέρει ακόμα και μέσα στους κόλπους του Ευρώ.

Παρ΄ όλη τη σημασία της, οι Ευρωπαίοι αξιωματούχοι δεν αντιληφθηκαν την έκταση της υποεπένδυσης στη ζώνη του Ευρώ. Στην προσπάθειά τους να αντιμετωπίσουν την κρίση χρέους, έριξαν όλο το βάρος στην δημοσιονομική συμμόρφωση των κρατών μελών, σαν την μοναδική προϋπόθεση για την επιστροφή στην ανάπτυξη. Παρά όμως την δημοσιονομική πρόοδο που επετεύχθη και την νομισματική χαλάρωση που προσέφερε η Κεντρική Ευρωπαϊκή Τράπεζα (ECB), η όποια ανάπτυξη παρέμενε θολή και αναιμική, γεγονός που έστρεψε τα φώτα του ενδιαφέροντος στη σημασία της υποεπένδυσης στην περιοχή του Ευρώ.

Πολλοί ερευνητές υποστηρίζουν ότι η επενδυτική δραστηριότητα στη ζώνη του Ευρώ υστερούσε, σε σχέση με άλλες ανεπτυγμένες οικονομίες, πριν την οικονομική κρίση. Εκτιμούν ότι προκειμένου να παραμείνει η Ευρωζώνη στο επίπεδο των άλλων ανεπτυγμένων οικονομιών, θα έπρεπε να επενδύσει πάνω από € 7,5 τρισεκατομμύρια, την περίοδο 1999 – 2007. Αντί όμως το χάσμα να κλείσει, αυτό μεγάλωσε κι άλλο. Η κατάρρευση της επενδυτικής δραστηριότητας είναι πιο ανησυχητική στις χώρες που μαστίζονται από την κρίση χρέους, στην περιφέρεια του Ευρώ, σαν αποτέλεσμα της δραματικής μείωσης της ζήτησης και των εμπροσθοβαρών δημοσιονομικών μέτρων. Επιπρόσθετα οι κοινωνικές εντάσεις, από τα μέτρα λιτότητας, δημιουργούν ένα πολιτικό και οικονομικό περιβάλλον, που ματαιώνει τα όποια επενδυτικά πλάνα.

Την ίδια ώρα, μια πρωτοφανής αύξηση της ανεργίας μαστίζει τη ζώνη του Ευρώ. Σε σχέση με τις υπόλοιπες ανέπτυγμένες οικονομίες, η Ευρωζώνη, εκτός από τη Γερμανία όπου η ανεργία παρουσιάζει μείωση, είναι η μόνη οικονομία όπου η ανεργία έχει ξεπεράσει τα προ κρίσης επίπεδα, το ποσοστό της παραμένει διψήφιο και συνεχίζει να αυξάνεται.

Κρίνοντας από τα αποτελέσματα στην ανεργία και της κατανομής των καθαρών κεφαλαίων την περίοδο 1991 – 2015 αναδεικνύεται εντυπωσιακά το φαινόμενο του κατόπτρου: υπάρχει μια έντονα αρνητική συσχέτιση μεταξύ της ανεργίας και της ολικής επένδυσης, τόσο της ιδιωτικής όσο και της δημόσιας.

Η σχέση μεταξύ του επενδεδυμένου κεφαλαίου και της ανεργίας τριβής έχει εκτενώς μελετηθεί τις τελευταίες δύο δεκαετίες, καθώς έχει αποτελέσει πεδίο έντονης αντιπαράθεσης, μεταξύ των οικονομολόγων. Η ανεργία τριβής αυξάνεται με την ισχύ των συνδικάτων και τα επιδόματα ανεργίας, μειώνεται με την ανταγωνιστικότητα της οικονομίας, αλλά δεν επηρεάζεται από τις μεταβολές στο κλάσμα έντασης κεφαλαίου - έντασης εργασίας. Η υπόθεση είναι ότι οι πολιτικές αύξησης της έντασης κεφαλαίου, είναι εντελώς αναποτελεσματικές σχετικά με τα υψηλά ποσοστά ανεργίας και μόνο η εφαρμογή μεταρρυθμίσεων στην αγορά εργασίας θα μπορούσε να τα ρίξει μακροπρόθεσμα.

Η αλληλεπίδραση μεταξύ επένδυσης και ανεργίας αποτέλεσε αντικείμενο επιστημονικής διαμάχης και στις ΗΠΑ. Ο Taylor (2011) διετύπωσε μια ισχυρά αρνητική σχέση μεταξύ τους και υποστήριξε ότι « οι προσπάθειες της κυβέρνησης να μειώσουν την ανεργία θα πρέπει να ενθαρρύνουν τη δημιουργία και την επέκταση της επαγγελματικής δραστηριότητας». Αντίθετα ο Krugman (2014) υποστήριξε ότι τα ευρήματα είναι πλαστά, λόγω της εκρηκτικής αύξησης της αστικής επένδυσης, μετά την παγκόσμια κρίση και διαβεβαίωσε ότι η υψηλή ανεργία είναι αυτή που οδηγεί σε τοποθετήσεις κεφαλαίου και όχι το αντίθετο. Πολύ συχνά η διαμάχη αυτή εμπλουτίζεται με θεωρητικά ή ιδεολογικά επιχειρήματα, πάντως είναι πολύ σημαντικό να εξακριβώσουμε εάν και σε ποιο βαθμό το ποσοστό ανεργίας εξαρτάται από την επενδυτική δραστηριότητα.

Η ανεργία τριβής επηρρεάζεται από την επένδυση κεφαλαίου, από τη στιγμή που υπάρχει ελαστικότητα μεταξύ κεφαλαίου και εργασίας. Στη ζώνη του Ευρώ το επίπεδο των μισθών δεν έχει παραμείνει σταθερό τις τελευταίες δύο δεκαετίες κι έτσι η επίδραση της επένδυσης στο ποσοστό ανεργίας αναμένεται ισχυρή. Μια διακρατική εκτίμηση των ποσοστών ανεργίας, εμφανίζει την επίδραση της επένδυσης να είναι στατιστικά σημαντική, σε αντίθεση με τις εργασιακές μεταρρυθμίσεις που δεν παίζουν σημαντικό ρόλο στην προώθηση της απασχόλησης. Οι εκτιμήσεις χρησιμεύουν για να υπολογίσουμε το επενδυτικό κενό στην Ευρωζώνη και σε ποιο ποσοστό θα πρέπει να συμμετέχουν ο ιδιωτικός και ο δημόσιος τομέας στην αποκατάσταση της απασχόλησης.

Ο ρόλος της πολιτικής διαφθοράς και της φοροδιαφυγής στην Ελληνική τραγωδία.

Η διαφθορά καθώς και η κατασπατάληση των δημοσίων εσόδων, συχνά δίνει το άλλοθι και τη δικαιολογία για φοροδιαφυγή. Πράγματι, διαφθορά και φοροδιαφυγή πολύ συχνά, κάνουν ταυτόχρονα έντονη την παρουσία τους, κάτι που όλοι συμφωνούν ότι έπαιξε σημαντικό ρόλο στην πρόσφατη Ελληνική οικονομική τραγωδία.

Η διαφθορά και διάβρωση του πολιτκού συστήματος, μέσω μιας σειράς οικονομικών σκανδάλων, σε συνδυασμό με μεγάλης κλίμακας φοροδιαφυγή και πολύ χαμηλής ποιότητας υπηρεσιών από πλευράς του κράτους, χαρακτηρίζουν τη δημόσια ζωή της Ελλάδας για τουλάχιστον τις τρεις τελευταίες δεκαετίες. Αυτό είχε σαν αποτέλεσμα τη δραματική μείωση των δημοσίων εσόδων, την αμοιβαία καχυποψία μεταξύ των πολιτών και της κεντρικής διοίκησης και την νομιμοποίηση της φοροδιαφυγής και της δωροδοκίας. Η παραβατική συμπεριφορά του ενός μέρους, αντανακλά άμεσα και γίνεται συμπλήρωμα της παραβατικότητας του άλλου. Όταν το ένα μέρος αναμένει ή πιστεύει ότι το άλλο μέρος θα «κλέψει» τότε το θεωρεί ωφέλιμο (πολλές φορές και επιβεβλημένο) να κλέψει κι αυτό.

Δημιουργείται κατ΄ αυτόν τον τρόπο ένας φαύλος κύκλος: Οι πολίτες αποφασίζουν για το ύψος των εισοδημάτων που θα δηλώσουν στις φορολογικές αρχές, αναλόγως της πιθανότητας να ελεγχθούν φορολογικά και του ύψους του προστίμου που θα κληθούν να πληρώσουν σε περίπτωση που καταδικαστούν. Από την άλλη οι πολιτικοί, έχουν συχνά τη δυνατότητα να καταχρώνται σημαντικό μέρος του δημοσίου χρήματος, που προορίζεται για το δημόσιο συμφέρον.

Σε αυτό το περιβάλλον δημιουργούνται πολλαπλές, αυτοεκπληρούμενες ισορροπίες: μια θετική (αρνητική) ισορροπία με χαμηλή (υψηλή) διαφθορά, με χαμηλό (υψηλό) ποσοστό φοροδιαφυγής και υψηλό (χαμηλό) ποσοστό της δημόσιας δαπάνης να διατείθεται προς το κοινό όφελος. Η ύπαρξη διαφορετικών ισορροπιών μας βοηθά να καταλάβουμε πώς κράτη με κοινή αφετηρία, εμφανίζουν διαφορετικά επίπεδα διαφθοράς και φοροδιαφυγής, καθώς επίσης πώς τα φαινόμενα αυτά είναι τόσο δύσκολο να εξαλειφθούν.

Στη συνέχεια εξετάζουμε τις συνήθεις περιοριστικές πολιτικές, όχι μόνο σαν ένα μέσο καταπολέμησης της διαφθοράς και της φοροδιαφυγής, αλλά γενικότερα σαν ένα τρόπο επιλογής της βέλτιστης ισορροπίας. Παρουσία πολλαπλών ισορροπιών, που είναι αποτέλεσμα από στρατηγικές συμπληρωματικότητας στην παραβατικότητα των δύο ομάδων, των πολιτών και των πολιτικών, τα συνήθη μέτρα, όπως τα πρόστιμα για φορολογικές παραβάσεις, δεν είναι πάντα αποτελεσματικά. Μπορεί να αυξάνουν το κόστος ευκαιρίας της φοροδιαφυγής και της διαφθοράς, αποτυγχάνουν όμως να εξαφανίσουν τις στρατηγικές συμπληρωματικότητας μεταξύ των αντιπάλων ομάδων.

Στη συνέχεια εξετάζουμε τη συμβολή εναλλακτικών μέτρων συμμόρφωσης. Συγκεκριμένα εξετάζουμε το κόστος που προκύπτει από τον κοινωνικό στιγματισμό κάποιου που παρανομεί. Αν το κοινωνικό αυτό κόστος είναι αρκετά υψηλό, τότε εξαφανίζεται η πολλαπλή ισορροπία και η οικονομία συγκλίνει προς μια μοναδική ισορροπία. Η επιτυχία του συγκεκριμένου μέτρου έγκειται στο γεγονός ότι στοχεύει κατ ευθείαν στον παράγοντα που δημιουργεί την πολλαπλή ισορροπία, δηλαδή τη συμπληρωματικότητα μεταξύ των αντιθέτων ομάδων.

Η σχετική βιβλιογραφία αναφέρει ότι κράτη με περεμφερή δημοσιονομικά συστήματα και περιοριστικές πολιτικές, συχνά εμφανίζουν διαφορετικά επίπεδα συμμόρφωσης. Για να εξηγήσουν τις διαφορές αυτές οι ερευνητές εισάγουν την έννοια του ηθικού κόστους που σχετίζεται με τη φοροδιαφυγή. Άτομα που δεν είναι παραβατικά γενικά, θεωρούν τη φοροδιαφυγή μη ηθικά αποδεκτή. Από την άλλη άτομα που ζουν και κινούνται σε ένα περιβάλλον παραβατικότητας από φίλους και γνωστούς, τείνουν και οι ίδιοι να παραβατούν.

Η αποτελεσματικότητα ή οχι μιας πολιτικής για την καταπολέμηση της φοροδιαφυγής εξαρτάται από παράγοντες που δεν μπορούν εύκολα να ανιχνευθούν και να μετρηθούν, ακόμη κι αν πρόκειται για μέτρα όπως φορολογικά πρόστιμα και ελέγχους.

Ποιες πολιτκές μπορεί να υιοθετήσει μια κυβέρνηση, προκειμένου να μεγιστοποιήσει το ηθικό κόστος για κάποιον που κλέβει το κράτος; Υπάρχει μεγάλη γκάμα κυβερνητικών παρεμβάσεων που μπορούν να αλλάξουν τον τρόπο που αντιμετωπίζουμε την πληρωμή των φόρων. Μία απ΄ αυτές είναι η συστηματική χρήση των μέσων μαζικής ενημέρωσης, για να τονιστεί το ηθικό όφελος από την φορολογική συμμόρφωση αφενός και η άσκηση πίεσης αφετέρου στους παρανομούντες. (π.χ. δημοσιεύοντας τα ατομικά φορολογικά έσοδα ή τελεσίδικες περιπτώσεις φοροδιαφυγής). Επίσης η αποφυγή πολιτικών που υπονοούν ότι η φοροδιαφυγή είναι κοινωνικά αποδεκτή, όπως η φοροαμνήστευση. Και τέλος η υπερτόνιση της άμεσης σχέσης μεταξύ της φορολογικής συμμόρφωσης, των φορολογικών εσόδων και του επιπέδου των υπηρεσιών που απολαμβάνει ο πολίτης από το κράτος.

Συμπερασματικά θα λέγαμε ότι οι πολίτες είναι πιο πρόθυμοι να συμμορφωθούν φορολογικά και να αποδίδουν τους φόρους που τους αναλογούν στο κράτος, όσο πιστεύουν ότι η φορολογική διοίκηση είναι δίκαιη και αποτελεσματική. Στην πράξη η οικοδόμηση κλίματος αμοιβαίας εμπιστσύνης σε κοινωνίες με υψηλό δείκτη διαφθοράς είναι εξαιρετικά δύσκολη. Έτσι εξηγείται η ιδιαίτερα έντονη επιμονή των φαινομένων διαφθοράς και φοροδιαφυγής και η δυσκολία που αντιμετωπίζουν συχνά οι κυβερνώντες οι οποίοι τίμια και ειλικρινά προσπαθούν να τα καταπολεμήσουν.

Ευρωπαϊκή Νομισματική Ένωση (EMU 2.0) Συμπεράσματα από την κρίση – νέο πλαίσιο σταθερότητας και ανάπτυξης.

Τα ερωτήματα που εγείρονται από την τελευταία παγκόσμια οικονομική κρίση, η οποία είχε άμεση και οξεία επίδραση στα κράτη μέλη που απαρτίζουν την Ευρωπαϊκή Νομισματική Ένωση (EMU 2.0), τη γνωστή και ως Ευρωζώνη, απειλώντας άμεσα τη συνοχή και την ακεραιότητά της είναι πολλά. Ήταν η στρατηγική που υιοθετήθηκε και τα συγκεκριμένα μέτρα για την αντιμετώπιση της κρίσης τα κατάλληλα; ήταν η προτεραιότητα που δόθηκε στη δημοσιονομική σταθερότητα δικαιολογημένη; είναι η σταθερότητα και η ανάπτυξη ταυτόχρονα εφικτές στην ευρωζώνη; ποιο είναι το περιθώριο άσκησης εθνικής οικονομικής πολιτικής στο ασφυκτικό πλαίσιο της Ευρωπαικής πολιτικής.

Ατέλειες και παραλείψεις στην οικοδόμηση της ευρωζώνης δεν επέτρεψαν την έγκαιρη αποτροπή της κρίσης, αλλά και την λήψη όλων των απαραίτητων μέτρων για την αντιμετώπισή της, όταν αυτή προέκυψε.

Η παγκόσμια χρηματοοικονομική κρίση του 2008-2009 μετεξελίχθηκε το 2010 σε κρίση εθνικού χρέους στην ζώνη του ευρώ, πλήττωντας χώρες με υπερβολικά ελλείματα και δομικές αδυναμίες. Η Ελλάδα ήταν η πρώτη χώρα του ευρώ που χτυπήθηκε από την κρίση στις αρχές του 2010, ακολουθούμενη από μια σειρά άλλων κρατών μελών όπως η Ιρλανδία και η Πορτογαλία στα τέλη του 2010 και τα μέσα του 2011 αντίστοιχα, η Ισπανία το 2012 και η Κύπρος το 2013. Οι παραπάνω χώρες αντιμετώπισαν σημαντικές αδυναμίες, διαφορετικές σε κάθε περίπτωση, αλλά με κοινό παρανομαστή τις δυσκολίες εξασφάλισης διεθνών κεφαλαίων υπό κανονικές συνθήκες. Οι παραπάνω οικονομίες, ήδη εξασθενημένες από την παγκόσμια κρίση, δεν διέθεταν την αντοχή και την ευελιξία να ανταπεξέλθουν την εθνική κρίση χρέους η κάθε μία με τα δικά της μέσα. Παράλληλα παγιδευμένες στο σπιράλ της κρίσης και της ύφεσης, δεν μπόρεσαν να επωφεληθούν από την βελτίωση της παγκόσμιας οικονομίας και εμπορίου το 2010.

Οι αδυναμίες και οι ατέλειες στο οικοδόμημα της νομισματικής ένωσης δεν εμπόδισαν την εμφάνιση σοβαρών ανισοτήτων μεταξύ των κρατών μελών και έκαναν δυσχερέστερη τη λήψη μέτρων για την αντιμετώπιση της κρίσης, όταν αυτή προέκυψε. Επιπλέον δύο λόγοι φαίνεται ότι έπαιξαν αρνητικό ρόλο:

Πρώτον η ευρωζώνη είχε ήδη πέσει θύμα της ίδιας της επιτυχίας στη δημιουργία ανάπτυξης και απασχόλησης κατά την πρώτη δεκαετία, κι έτσι δεν ήταν επιτακτική η ανάγκη για διόρθωση και εναρμόνιση πολιτικής, όταν ένα κράτος μέλος παρέκλινε. Δεύτερον και σε άμεση σχέση με το πρώτο, η άρνηση κάποιων μεγάλων κρατών μελών να σεβασθούν και να εφαρμόσουν τους κοινά αποδεκτούς δημοσιονομικούς κανόνες. Χαρακτηριστικό παράδειγμα αποτελεί η προσπάθεια Γερμανίας και Γαλλίας το 2003 να συμμορφωθούν με τους δημοσιονομικούς κανόνες σχετικά με τη μείωση των εθνικών ελλειμάτων

Η Ελληνική κρίση εθνικού χρέους και η διαχείρισή του, είναι κρίσιμα για να αντιληφθούμε τη δυναμική της κρίσης στην ευρωζώνη, καθώς η Ελλάδα ήταν το πρώτο μέλος το οποίο χτύπησε η κρίση. Μηχανισμός στήριξης από την Ευρωπαική Ένωση δεν υπήρχε και έπρεπε να δημιουργηθεί ένας από την αρχή, ενώ η αβεβαιότητα μεγάλωνε, απειλώντας τη σταθερότητα και την ακεραιότητα της ευρωζώνης. Υπήρχε μεγάλη αλληλεπίδραση μεταξύ της Ελληνικής κρίσης χρέους και της χρηματοοικονομικής κρίσης στην ευρωζώνη, η οποία με γοργούς ρυθμούς αποκτούσε συστημικά χαρακτηριστικά.

Μια σημαντική καμπή στην ιστορία της κρίσης εθνικού χρέους της ευρωζώνης ήταν το 2012, όταν έγινε κοινή πεποίθηση ότι εκτός από τη δημιουργία μηχανισμών στήριξης και την ενίσχυση των δημοσιονομικών και μακροοικονομικών κανόνων, ήταν ανάγκη να εξαλειφθεί το ρίσκο της αποσύνθεσης της ευρωζώνης, το σπάσιμο του φαύλου κύκλου μεταξύ των τραπεζών και των εθνικών κυβερνήσεων και η μετάβαση προς μια τραπεζική ένωση. Για το λόγο αυτό η δέσμευση του προέδρου της Κεντρικής Ευρωπαικής Τράπεζας (ECB) τον Ιούλιο του 2012 Mario Draghi ότι: «*η Ευρωπαική Κεντρική Τράπεζα είναι έτοιμη να κάνει ότι χρειαστεί για να προστατέψει το ευρώ*», ήταν αποφασιστικής σημασίας.

Πολιτικές που προωθούν ταυτόχρονα σταθερότητα και ανάπτυξη είναι εφικτές στο πλαίσιο της νομισματικής ένωσης και ήδη οι περισσότερες εφαρμόζονται, ενώ πολλές είναι στο στάδιο της μελέτης και υλοποίησης. Μερικές απ΄αυτές τις πολιτικές είναι η υιοθέτηση ισοσκελισμένων προυπολογισμών των κρατών μελών, η οποία επιβάλλεται από την Ευρωπαική Ένωση και αναμένεται να έχει πολύ μεγαλύτερα οφέλη απ΄ ότι πολλοί θεωρούν, η τραπεζική ένωση, ένας ιδιαίτερα σημαντικός παράγοντας οικονομικής σταθερότητας και ανάπτυξης, καθώς και οι νέες πολιτικές ενδυνάμωσης και ανάπτυξης της Εσωτερικής Ευρωπαικής Αγοράς, με έμφαση στην οικονομική ανάκαμψη και τις προοπτικές της Ευρωπαικής οικονομίας.

Στα παραπάνω θα πρέπει να προστεθούν οι πολιτικές που στοχεύουν κατευθείαν στην οικονομική ανάπτυξη. Τέτοιες πολιτικές είναι οι ιδιωτικές και δημόσιες επενδύσεις, καθώς και αναπτυξιακές πολιτικές τόσο σε εθνικό, όσο και σε κεντρικό επίπεδο, που επικεντρώνονται σε δομικές μεταρρυθμίσεις στην εργασία και τις αγορές προιόντων και υπηρεσιών και τέλος βελτίωση του επιχειρηματικού περιβάλλοντος.

Συμπερασματικά θα λέγαμε ότι αδυναμίες και παραλείψεις στη δομή της νομισματικής ένωσης στη ζώνη του ευρώ (Euro Monetary Union EMU), δεν επέτρεψαν την έγκαιρη αποφυγή της μετάδοσης της οικονομικής κρίσης ανάμεσα στα κράτη μέλη της ένωσης και ιδιαίτερα από την περιφέρεια προς το κέντρο της ζώνης, όπως επίσης και δυσκόλεψαν τις όποιες πολιτικές αντιμετώπισής της όταν αυτή ξέσπασε.

Μια σημαντική καμπή στην προσπάθεια να ξεπεραστεί η κρίση δημοσίου χρέους έλαβε χώρα το 2012, όταν οι αξιωματούχοι της ΕΚΤ, με τη βοήθεια μιας σειράς θεσμικών και οικονομικών μεταρρυθμίσεων, κατάφεραν να ελέγξουν και να αποτρέψουν το ρίσκο της διάλυσης της ευρωζώνης. Παράλληλα η τραπεζική ένωση σχεδιάστηκε ώστε να ενισχύσει την οικονομική σταθερότητα, την επέκταση των αγορών και την Ευρωπαική εσωτερική αγορά.

Είναι καθολικώς αποδεκτό, ότι η στρατηγική των Ευρωπαίων αξιωματούχων να ρίξουν όλο το βάρος στην οικονομική σταθερότητα ήταν πλήρως δικαιολογημένη, ειδικά τα δύο πρώτα χρόνια της Ευρωπαικής κρίσης, όταν η αβεβαιότητα σχετικά με την οικονομική σταθερότητα ακύρωνε κάθε προσπάθεια ανάκαμψης της οικονομίας. Πάντως είναι ξεκάθαρο ότι η βιώσιμη ανάπτυξη είναι ζωτικής σημασίας για την οικονομική σταθερότητα και τη γενική ευημερία. Για το λόγο αυτό η δημιουργία των συνθηκών εκείνων τόσο για την οικονομική ανάκαμψη, όσο και για την ισχυρή ανάπτυξη, πρέπει να είναι σταθερές στρατηγικές τόσο σε επίπεδο Ευρωπαικής Ένωσης όσο και σε εθνικό επίπεδο.

Στο σημείο αυτό τίθεται το ερώτημα ποιο είναι το περιθώριο άσκησης εθνικών πολιτικών στο νέο πλαίσιο οικονομικής εποπτείας. Η απάντηση δεν είναι εύκολη, καθώς βρισκόμαστε σε αχαρτογράφητα ύδατα. Η κρίση δεν έχει εντελώς παρέλθει και μέρος των μεταρρυθμίσεων δεν έχουν ακόμη εφαρμοστεί. Υπάρχει άπλετος χώρος για την εφαρμογή εθνικών πολιτικών, αρκεί αυτές να είναι προσεχτικά σχεδιασμένες και να στοχεύουν στην οικονομική προοπτική των κρατών μελών. Το νέο πολιτικό περιβάλλον είναι ασφαλέστερο, καθώς οι αδυναμίες στη δομή της ευρωζώνης έχουν σε μεγάλο βαθμό διορθωθεί, αλλά και θέτει νέες προκλήσεις: Δηλώσεις που έγιναν με κάθε καλή θέληση αλλά σε μεγάλο βαθμό απραγματοποίητες, όπως η ανάγκη για «αναπτυξιακές δομικές μεταρρυθμίσεις» ή «αναπτυξιακές δημοσιονομικές προσαρμογές» πρέπει να αποκτήσουν νέο νόημα και περιεχόμενο, κινητοποιώντας όλους τους διαθέσιμους πόρους και εμπειρία.

Σχετικά με τις επιφυλάξεις που συχνά διατυπώνονται αναφορικά με την προοπτική της ευρωζώνης η απάντηση είναι απλή: Η ενισχυμένη χρηματοοικονομική εποπτεία, στα μέλη της ευρωζώνης, τα σίγουρα μακροοικονομικά στοιχεία, η έντονη και βιώσιμη εξωστρέφεια και η προοπτική της Εσωτερικής Ευρωπαικής Αγοράς μας δίνουν κάθε λόγο να αισιοδοξούμε για τις προοπτικές της ευρωζώνης. Ωστόσο είναι άκρως απαραίτητα κάποια επιπλέον στοιχεία όπως η περαιτέρω οικονομική εποπτεία, η προσήλωση σε υγιή θεμελιώδη χαρακτηριστικά, νομισματικές και οικονομικές πολιτικές, επένδυση σε φυσικό και ανθρώπινο κεφάλαιο αλλά πάνω απ΄ όλα καινοτομία, εξωστρέφεια, ιδέες και προτάσεις απέναντι στον κοινό στόχο.

1. Definition of the contagion during the Global Financial Crisis of 2007 – 2009

During the last two decades the problem with crisis spillovers turns to be a major research topic for numerous scientists working in the field of economics and finance. The word “contagion” appears for the first time in the empirical finance vocabulary with the outbreak of the “Asian flu” and the “Russian virus” to name the occurrence of severe and unexpected crisis spillover effects. Up to date a huge body of literature is engaged with the study of this phenomenon, nevertheless, the necessity to further develop and deepen this research strand is evidenced by the dense intensity of financial bubble bursts observed during the last years. Yet, there is no doubt that the 2008 financial crisis is the most recent one commensurate in its severity with that of the Great Depression. It did spread extremely rapidly all over the globe, hitting financial markets and economic sectors worldwide, which has urged the search for profound understanding of the spillover processes that took place. Even though a considerable amount of literature is already available, still some aspects of the crisis are barely studied. In particular, most of the papers are focused on the spillover processes that took place, but little attention has been paid to the recovery phase of the crisis even though this issue is of growing importance not only for investors but also for policy-makers.

Apart from identification of the channels through which contagion propagate, the development of adequate counter-cyclical policies requires awareness on the speed by which markets synchronize with the crisis epicenter as well as understanding of the factors that might slow or even hamper recovery. It is very important to examine these issues for a number of European stock markets as they seem to be important cornerstones for the subsequent recession observed in Europe. There is a distinction between expected and unexpected spillover effects, as the former are subject to modeling, while the latter are unpredictable. The speed of synchronization between a sample of European and the US stock markets must be estimated so as to build up expectations on the rate of recovery.

The importance of such a distinction comes from the fact that the unexpected spillover effects are unpredictable therefore the task to design and implement proper anti-crisis policies aggravates significantly. At the same time when the spillover drivers are confined mainly to existing (fundamental) market dependencies, it might be expected that the recovery in the epicenter market would foster the recovery in the other markets. It should be noted that the available literature suggests that the 2008 crisis’ spillover is due to both high level of financial integration and contagion. On one hand, some recent studies provide strong evidence of contagion and reveal its major channels, while other studies argue that the violent spread across countries and economic sectors comes as a consequence of high financial integration.

A major finding is that the emerging economies recovered more strongly than advanced ones, still heterogeneity is present with the emerging economies from Eastern Europe and Central Asia performing worst. However, the question on the differences across EU member states is still unexplored and its answer seems to be of amplifying importance in light of the still on-going Eurozone crisis. While the existing literature puts emphasis solely on the influence of negative shocks, it is very important to investigate the propagation of both negative and positive shocks.

The economic intuition suggests that when two economies are well integrated through trade, investment and financial relationships, a crisis occurrence in one of them is likely to spread rapidly to the other. An exposure to financial globalization may carry increased vulnerability to a financial crisis. Several recent papers are supportive to this hypothesis, however, it is econometrically difficult to separate contagion from globalization. This poses the question what is the difference between globalization (integration) and contagion, and why it is important to distinguish between them.

The most popular and widely applied definition of contagion is introduced by Forbes and Rigobon (2002)

Def. 1. : A significant increase in cross-market linkages after a shock to one country (or a group of countries). The paper points out that if two stock markets exhibit high level of co-movement during calm periods, than the continued high correlation after a shock to one of the markets suggests interdependence, while contagion is present only in the case of a significant co-movement increase.

Def. 2. : The co-movement in excess of that implied by the factor model. It should be noted that both of the definitions make use of the notion of co-movement. However, the co-movement is not directly observable, it is rather an issue of measurement, with the correlation coefficient being the most common and widely enhanced measure. According to the first definition, the observed correlation increase indicates presence of contagious effects, though, the drivers behind them are not clear. The causes might be sought in the existing trade and financial relationships. Alternatively, there might be a presence of pure contagion, such as herd behavior, i.e. the case when all traders choose the same action irrespective of the available information or a "wake-up call" describing the state of investors reassessing the risk of countries other than those where the crisis was originally restricted to.

Def. 2 allows to distinguish between two main drivers of a crisis spillover – these are market fundamentals and pure contagion. While the effects due to existing fundamentals are subject to modeling, the pure contagion is hard or even impossible to predict.

Def. 3. Expected spillover effect: The increase in co-movement, which is predicted on the basis of modeled fundamental dependencies.

Def. 3 implies that an unexpected spillover effect would be the increase in co-movement, which could not be predicted on the basis of modeled fundamental dependencies. A detailed discussion on the policy implications is provided in the last subsection of the literature review. Here it suffice to note that any crisis might be viewed as a negative shock to the studied system. Yet, we believe that the propagation of both negative and positive shocks should be considered when planning monetary and fiscal policies. Particularly, what matters for policy markers is the rate of a shock absorption.

Def. 4. Rate of a shock absorption: The speed by which a shock to one market (or a group of markets) propagates to another market. Similarly to the concept of co-movement, the speed of propagation is not directly observable therefore we would study the speed of stock market synchronization instead.

Contagion analysis has important implications for macroeconomic policy development. We can outline four major decision areas that can benefit from contagionand stock market integration studies:

1. Improving monetary and fiscal policy decisions. Monetary and fiscal policy decisions are prone to become inefficient in case of problems in a large economy that are spilled over financial markets and/or international trade. Therefore, policy makers need to make sure contagion is accounted for not only when planning particular policies but also when setting up long term goals. For example, countries that are subject to quick absorption of problems and external shocks should aim for

more conservative policy rules and make sure that discretionary policies pay as much attention to foreign markets as to the development of domestic economy.

2. Improving our understanding of processes going inside large politico-economic unions, like EU for example, which include member states suffering from different economic problems. Contagion analysis offers a new point of view that is capable to outline these differences and at the same time provide hints on policies and changes needed to close the gaps. For example member states that belong to different groups, would require different policies and eventually different rules regarding their budget deficits, inflation rates and reserves.

3. Improving strategic trade decisions and analyzing long-term implications of choosing international trade partners. With regard to strategic trade decisions, spillover effects offer a different view on expected outcome of government interventions as well as on the acceptance of new trade rules. Considering that strategic trade theory itself is based on a foundation that assumes existence of market inefficiencies, the contagion analysis can help quantify and locate them.

4. Improving our understanding of internationalization and regionalization in the global economy. This is important when analyzing economic policies that are implemented gradually and are expected to take time before actual results are seen.

2. Transmission of sovereign risk in the Euro crisis

In late 2009, with the global economy inching out of the Great Recession, the sovereign debt crisis hit Europe with a remarkable pace and vigor. Fears of sovereign insolvency initially developed in one peripheral country, Greece, but quickly spread to other European countries, prompting policymakers to take bold actions aimed at stopping contagion.

Sovereign risk may propagate across borders through multiple channels. In the context of the Euro crisis, however, the public debate has repeatedly stressed the role of financial linkages across countries, and, in particular, of cross-border bank exposures as drivers of contagion. Following a common line of argument, a looming Greek sovereign default would transmit more heavily to the banking systems of other European countries, the more these latter are exposed to Greek sovereign debt. A troubled foreign banking system, in turn, constitutes a liability to its sovereign through implicit guarantees and thus increases the respective sovereign risk. By similar mechanisms, cross-border interbank lending can matter: as the Greek banking system becomes stressed in a Greek sovereign debt crisis, foreign counterparties of Greek banks are adversely affected, which again strains the financial health of the respective foreign countries. While those and related channels have been frequently debated, the importance of cross-border financial linkages for the transmission of sovereign risk is contended and their exact role in the Euro crisis ultimately remains an empirical issue.

There are indications that a 1% shock to Greek sovereign CDS premia is associated with a 0.275% increase in the CDS premia of the average European country, which suggests economically significant transmission rate. These spillover effects also appear to be long-lived, leading to persistent increases in CDS premia in all countries.

There are different types of financial linkages, such as exposure to public debt and bank-to-bank lending. It is suggested that bilateral exposures to sovereign debt constitute economically and statistically significant transmission channels. Specifically, a reduction of sovereign debt exposures by one standard deviation is associated with a decline of the response to Greek shocks by roughly 0.12 – which is about 43% of the estimated rate of transmission.

On the contrary, there is no robust support for transmission through bank-to-bank lending.

A different strand of the literature has focused on market sentiments and coordination problems among investors to explain the onset of financial crises and their spreading. Empirically, the decomposition between fundamental and non-fundamental contagion poses some clear challenges, as the latter depends on factors that are not directly observable (e.g., market expectations).

Finally, contagion may also occur if shocks in one country affect market expectations regarding the terms of international policy cooperation. Applying this logic to the Euro crisis, one could argue the news stemming from Greece informed investors about the EU commitment to guarantee the debt of other countries in distress, and thus contributed to propagate the crisis.

The use of financial news to identify country-specific shocks becomes popular in the recent literature and has in some cases been applied to the specific context of the Euro crisis.

It is confirmed that shocks to sovereign solvency in one country should have the strongest spillover effects on those countries that are directly exposed to the country's government debt. The coefficient capturing the relation between trade linkages and transmission remains statistically insignificant when the transmission of sovereign risk across European countries is significantly related to the financial exposures to Greek debt, and to Greek Public Debt in particular. At the same time, however, a substantial amount of transmission or contagion remains unexplained, especially to the crisis countries Spain and Portugal, which indicates that alternative channels are at work at the same time.

Of course, the general vulnerability of an economy may be a key factor for the rate of transmission of sovereign risk and, at the same time, influence the exposure to Greek debt. Specifically, banks in vulnerable countries may respond stronger to news shocks to Greece. If, at the same time, the banks in vulnerable crisis countries engage in gambling-for-resurrection investment strategies or if these banks are more reluctant to recognize losses on their Greek debt positions (and engage in creative accounting), the estimates, may suffer an upward bias.

Some concerns may remain related to the possibility that the crisis countries are fundamentally different from others in both dimensions, the rate of transmission and the exposure to Greek debt.

A different potential concern is related to the perception and the interpretation of Greek shocks in financialmarkets. In particular, if market participants perceive the Greek news as shocks to global financial stability (not captured by the exogenous variables), then a country's CDS response on the days of Greek events may depend on its total foreign exposure, instead of the exposure to Greece. In this case, the relation between risk transmission and financial exposure to Greece may be spuriously affected by changes in the external exposure or simply to portfolio size.

There are also indirect financial linkages to Greece. In particular, if French banks are strongly exposed to Greek public debt but Spanish banks are not, the Spanish banks might nevertheless suffer from an increase in Greek sovereign risk due to indirect exposure through the French banking system. This suggests that accounting for the entire network of cross-border financial linkages may be important to assess the role of bank-to-bank lending for the transmission of risk. Nevertheless, the results confirm that the transmission of Greek sovereign risk is affected by the exposure to Greek Public Debt. Overall, these results indicate that the link between financial exposure and risk spillovers is quite robust to different selections of Greek shocks.

3. Global transmission channels for international bank lending

The environment that characterizes a financial crisis is typically one of fear, turmoil, and despair. For an international bank, these sentiments are experienced as heightened uncertainty over the value of its asset holdings, fluctuations in access to funding from interbank liquidity markets, and changes in its solvency due to balance sheet considerations. These three channels - of uncertainty, liquidity, and solvency - in turn affect the flow of credit provided by banks over the course a crisis. It is crucial to illuminate the manner by which each of these channels, operating at the global level, affected cross-border lending by developed-country banks to developing countries during the run-up, onset, and immediate aftermath of the global financial crisis of 2007-09.

Gaining a better understanding of how different bank credit channels function during a financial crisis is important, because the appropriate mitigation measures deployed by policymakers-whether before or after the fact-may differ according to the operative channel. For example, if liquidity access is the binding constraint, then the domestic central bank can relax its discount window, or engage in currency swap agreements with foreign central banks, in order to provide the necessary liquidity and alleviate the credit crunch. In contrast, if the problem is one of solvency, ex ante micro and macro-prudential regulation may be more appropriate to limit the buildup of potentially nonperforming assets in the first place. Indeed, the issue of liquidity versus solvency is routinely discussed in the context of financial crisis management.

While the specific conditions that govern the contraction of credit by banks are undoubtedly unique, understanding how these channels operate at the global level is also important. A global liquidity shock can exert an independent and significant impact on bank funding and lending activities, over and above bank-specific liquidity contractions. Global perceptions regarding solvency also account for the bulk of variations in credit spreads for sovereign borrowing. And uncertainty at the global level contributes as much as local sentiment to market returns.

Many findings suggest that during the crisis, bank liquidity problems and uncertainty were the main channels by which the crisis affected cross-border lending from high income to developing countries, and that the solvency channel was relatively unimportant. Furthermore, the banks' sensitivity to these factors did not actually change during the crisis; that is, the effect of the crisis on lending was essentially a normal reaction to changes in interbank liquidity and economic uncertainty, and that the outsized impact on lending was due to abnormally large shocks to liquidity and uncertainty, rather than to any change in banks' sensitivity to funding availability or risk. However, disaggregating lending into that by EU banks and that by U.S. banks yields a more nuanced message, with European banks becoming increasingly sensitive to market conditions during the most acute phase of the crisis, but this effect being offset, at least in part, by behavior of U.S. banks.

One important strand of literature is work related to the impact that foreign bank presence has on credit availability, especially in developing countries. Foreign bank presence has been found to affect both overall and small business, lending in Latin America and India. Across the developing world, the entry of foreign banks has had measurable influence on credit access by domestic firms, although the evidence favoring greater or lesser financing availability has been mixed.

Many findings are also related to the studies concerned with the role that foreign banks play in domestic credit provision during times of financial stress. Foreign banks were more successful than domestics in sustaining credit in some crises, compared to others. Very often regarding on banks' internal financing markets, liquidity and solvency are treated as bank-specific controls, rather than as channels of credit contraction; they also entirely omit the uncertainty channel.

A final group of papers is concerned with liquidity management by international banks, especially those based in the United States. One early study examined the determinants of the allocation of banking assets, and found that existing economic ties, level of development of the host economy, and domestic deposits were all correlated with greater asset holdings. However, asset holdings are not equivalent to liquidity exposures, and subsequent studies have attempted to make a more direct connection to credit provision. For example, bank lending to emerging markets is found remarkably stable, and largely insulated from demand conditions in the host economies.

Transmission channels in theory:

In the presence of credit frictions, awedge arises between the cost of funds raised externally and the opportunity cost of internal funds; this is the so-called “external finance premium.” One way that the premium affects bank lending is that it can shift the available supply of banks' intermediated credit increases in the premium during a financial crisis, for example, will reduce banks' ability to raise financing and hence lower their amount of lending. We term this the liquidity channel for financial shocks. There is evidence that the liquidity channel is an important conduit for monetary policy in general; it appears to have been relevant for the recent financial crisis as well.

Another way that the external finance premium affects bank lending is by weakening balance sheets. In a crisis, credit rationing in the wholesale credit market leads to increases in the external finance premium. A higher premium erodes banks' net worth, and since international banks routinely operate in the global interbank market as demanders of capital, their weakened balance sheets hinder their access to wholesale funds, which in turn lead them to scale back on lending.We regard this balance sheet effect as the solvency channel for the effect of financial shocks. The importance of the solvency channel has been empirically verified for periods of tight money, as well as, more specifically, in the context of financial crises.

Finally, with informational imperfections, interest rates on loans may no longer serve as an efficient mechanism for the allocation of credit. Financial crises reduce banks' expected profits from lending, since they capture a smaller fraction of total returns when uncertainty is high. The reduced profitability and returns in turn increase the reluctance of banks to lend. More generally, perceptions of the value of risky assets on bank balance sheets may be endogenous to market conditions, which can influence the supply of bank loans. This mechanism is defined as the uncertainty channel for financial shock transmission. Taken together, these three channels can impact a bank's credit provision when it is experiencing (or not) a financial crisis. Empirically, uncertainty shocks have been shown to be crucial for understanding bank lending it was also a factor conditioning contagion during financial crises.

These three channels all appear to have been important in the 2007-09 financial crisis. At the onset of the crisis, concerns about the ability of counterparties to make good on unsecured loans disrupted interbank credit markets, which resulted in a liquidity crunch, observed as sharp increases in the spread between the interbank lending rate and the overnight index swap. Liquidity became even more scarce in the aftermath of the Lehman collapse in September 2008, as banks faced widespread difficulties in obtaining even basic rollover credit.

Concerns over bank solvency grew gradually as the crisis wore on. Spreads on credit default swaps (CDS) for bank bonds began to widen considerably, suggesting increasing concerns over (bank) credit impairment as a result of worsening balance sheets. Interestingly, the volatility of asset returns -while undoubtedly heightened during the initial crisis period- really only took off in the second phase of the crisis, with the implied volatility of the S&P 500 jumping sharply in September 2008.

It is clear that controlling for the crisis period results in important differences. Funding liquidity problems tend to be negatively associated with cross-border lending, but the effect is partially offset during the crisis either by convexity in the negative relationship or by contravening effects of unobservables.

The results from this specification also suggest that lending to developing countries is affected by financial shocks primarily through the liquidity and uncertainty channels: the coefficients for the liquidity and uncertainty channels are both negative and statistically significant at the conventional levels. The solvency channel, in contrast to these two, does not appear to be important.

Although the estimated coefficients on these two variables are admittedly small the economic impact of these channels are actually nontrivial. In particular, since the crisis saw these variables increase by several hundred percent, changes of this magnitude were associated with economically significant reductions in cross-border lending.

Credit contraction during a crisis may be due to changes in the volatility of banks' asset holdings, their access to liquidity, and their balance sheets, all of which lead them to withhold credit from borrowers. But the elasticity of credit provision to each of these considerations may also be different during a crisis. For example, a bank may be forced to limit its lending due to the greater difficulty that it faces in obtaining liquidity in primary markets (a level effect), but also due to a heightened sensitivity to liquidity scarcity under crisis conditions (an elasticity effect).

The impact of liquidity problems and uncertainty on bank lending during the crisis was due entirely to changes in these variables during the crisis, and not to changes in sensitivity to these variables. In the case of the uncertainty measure, this result sheds light on the question of whether risk aversion itself changed during the crisis, or whether market participants, facing a shock to uncertainty and risk, took actions to reduce their risk exposure; our results support the latter of these two competing views.

Finally, the statistically-significant coefficients for the control variables are consistent with a priori theory. Bank lending to developing countries is greater for larger economies, and smaller for economies with higher inflation rates (perhaps due to greater ex ante uncertainty of real returns on loans, or because inflation proxies for a less favorable policy environment more broadly). There does not appear to be a significant association of lending with growth, nor of demand for dollar-denominated business loans in the United States.

4. Mutual funds flows and the geography of contagion

Over the last decade, a growing literature has documented the ability of financial intermediaries to propagate shocks across borders. Along with banks, the fund industry has attracted particular attention and is now recognized as an important vehicle of financial contagion. In particular, recent empirical contributions have found compelling evidence of “contagious” portfolio rebalancing at the fund level, with adverse consequences for countries in the same portfolio.

Yet, little is known about the geography of contagion. Where does contagion actually spread? So far, the existing literature has had little to say about this issue. Although most studies present developing countries as the main victims of contagion through funds, it is unclear which country is subject to it. In addition, recent evidence has pointed to fire sales (or purchases) from funds propagating shocks across mature markets, suggesting that such phenomena are in fact not restricted to emerging markets.

As a result, some important questions remain to be explored: How do micro patterns, such as contagious portfolio rebalancing or fire sales/purchases at the fund level, translate at the macro level? If contagion does exist, who is affected? What are the countries that are most sensitive to contagion through funds?

First, we find that only a handful of countries happen to receive/lose funding in isolation. Second, we find strong evidence of global contagion in both equity and bond flows. Periods of high (low) financial stress and poor (good) macroeconomic outlooks in advanced markets are being associated with equity and bond outflows (inflows) at the world level. Although these global waves originate in developed “core” countries however, emerging markets’ funding is much more affected than mature markets’. Third, we find that the level of political risk, as well as the distance between the location of the fund and the recipient country, are the best predictors of contagion sensitivity. In other words, when facing a shock at home, investors tend to cut (or increase) their exposure to risky countries to a greater extent. Our findings suggest that distance and political risk act as the main risk criteria in the eyes of investors and managers, thereby exposing fragile emerging countries to sudden stops (or surges).

Previous variance decompositions have clearly highlighted the extent of co-movement in mutual fund flows. To what extent are these co-movements likened to contagion? and who is affected? On the one hand, the existence of an “emerging market” region in the bond model implies that all emerging markets tend to lose (or gain) funding at the same time, irrespective of their actual location or macroeconomic environment. Such an emerging market dynamic is in line with the emergence of emerging market bonds as an asset class *per se*, in which investors herd when in search for yield and retrench from when conditions deteriorate. In addition, this finding would rationalize the fact that spreads on emerging market bonds tend to move in tandem over time, although no clear (bilateral) trade or financial connection exists across these markets.

Second, we find that many countries are in fact subject to the “global contagion” channel. Funding shocks at “home, *i.e.* where funds are domiciled, translate into fire sales (and purchases) in countries within the same portfolio, in particular emerging markets. As a result, shocks in core countries tend to be propagated to countries in the periphery, thereby generating surges (stops) in emerging markets when conditions improve (deteriorate) at home. With the exception of a handful of developed markets, fund flows are driven by shocks originating in the domicile of funds, *i.e.* in advanced countries. Developing countries, in particular, are substantially affected by these “push” effects coming from developed markets.

Country characteristics and global contagion sensitivity

Why are some countries more sensitive to global contagion than others? In other words, what makes investors eager to enter (leave) a country when conditions improve (deteriorate)? (i) Rule of law and investor protection; (ii) Political instability; (iii) Transparency, Governance and Accountability at the corporate level; (iv) Sound money; (v) Economic risk; (vi) Public Finance; and (vii) Distance.

We find that three criteria ‑ political risk, trade openness and distance ‑ are robust in the equity specification, while only two ‑ political risk and distance ‑ are robust in the bond specification. This finding suggests that investors facing shocks at home tend to modify their exposure to a wide set of countries. However, they do all the more so in “risky” countries. Our results suggest that the level of *political risk* and the *distance* act as the main “risk criteria” in the eyes of fund managers. As a result, sudden surges/stops tend to strike fragile countries, *i.e.* emerging markets with unstable political systems and poor connection to the main financial centers.

Push vs *pull factors in portfolio investments*

A major question running through the capital flow literature is whether the forces that drive capital flows are attributable to external “push” factors or to domestic “pull” factors. Many findings clearly support the presence of strong push factors driving portfolio investments at the global level. In particular, financial stress, macroeconomic news and interest rates in advanced markets seem to be the main source of “push” factors, inducing international investors to increase (or reduce) exposure to foreign markets. However, we also find that structural “pull” factors (such as political stability and distance) determine the exact direction and magnitude of these waves of portfolio flows.

Taken together, these findings are well connected to other empirical contributions that have emphasized the importance of mature market conditions ‑ such as interest rates, liquidity, risk levels or weak economic performance ‑ in generating capital movements. On the other hand, they also seriously downplay the relevance of short-term pull factors, such as purely domestic growth/productivity shocks, in driving flows. Most countries turn out to be dominated by external conditions and only a handful of countries economies - regional economic leaders or countries experiencing a crisis - seem to be driven by idiosyncratic dynamics. In fact, our findings appear more in line with the most recent case studies that find "little or no role for domestic macroeconomic conditions".

Given the importance of regional co-movement in capital flows, such a method tends to interpret as an idiosyncratic dynamic what is in fact the result of regional co-movement. Although these regional dynamics might reflect truly regional "pull" factors (capturing strong regional macroeconomic dynamics, see for instance the case of Western Europe in the equity model), others may simply reflect contagion effects that do not reflect any commonality (*e.g.* emerging markets region in the bond model). Although discussing and estimating the potential bias in existing studies far beyond the scope of this paper, we stress that the omission of regional dynamics in previous push *vs* pull factor decompositions probably overestimated the actual impact of pull factors.

In conclusion there is strong evidence of global contagion: when financial conditions in developed markets change, emerging markets' funding is heavily affected. In general, the results suggest that push effects from advanced market investors affect massively developing countries and expose them to sudden stops and surges. The patterns of contagion seem to reflect, to a certain extent, the structure of the financial industry itself. For instance, the intensity of the global contagion might be a sign of the growing importance of so-called global funds who invest both in advanced economies and in emerging markets. In addition, the fact that regional dynamics fit geographical regions in the equity model might be the result of the dominance of regional funds in the equity market, whereas the dichotomy between advanced and emerging markets in the bond model might reflect the dominance of funds with a mandate to invest in either *all* emerging markets or *all* advanced economies (*e.g.* high-yield *vs* low-yield bond funds). This suggests, in turn, that management rules and portfolio restrictions probably shape the form of contagion. In that case, monitoring the portfolio of major investors could help in predicting the way contagion is likely to spread and designing appropriate policy responses.

Second, it seems that the rise of the asset management industry is coming at a price, including pro-cyclical lending, contagion and spillovers. Many findings support the view that asset managers or funds may not always act as “deep-pocket” investors at the global level. In particular mutual funds with a retail investor base do not seem seem to play a stabilizing role, in particular buying assets at low prices in crisis times.

5. Global financial crisis and emerging stock market contagion

The 2007–2009 global financial crisis was a chain reaction of credit risk inherent in engineered financial instruments, triggered by the liquidity shortfall in the United States banking system. It was the combination of three financial products, Residential Mortgage Backed Securities, Collateralized Debt Obligations, and Credit Default Swaps, in addition to some other major products, that caused the sub-prime mortgage crisis which later spread across global markets. Different from previous financial crises, such as the 1997–1998 Asian crisis, the 1998 Russian crisis, the 1999 Brazilian crisis,the 2007–2009 global financial crisis originated from the largest and most influential economy, the U.S. market, and had a contagion effect on all economies around the world. It is well-documented that international stock markets react, in terms of returns and volatility, quickly and simultaneously to major financial crises. However, the timing and magnitude of changes in stock returns and volatility differ across markets around the world. Therefore, the 2007–2009 global financial crisis provide a unique opportunity for investigating the dynamic interrelationships among global stock markets. Studies of the transmission of volatility shocks from one market to another are essential in finance, as they have many implications for international asset pricing, assessing investment and leverage decisions, and portfolio allocation as well as policy makers to develop strategies to insulate economies.

The general findings of these studies suggest that global stock markets’ volatilities increase substantially during the crisis, which further implies that both stock markets’ volatilities and correlations move together over time. However, they did not expose how and to what extent the 2007–2009 global financial crisis impacts the dynamic adjustment of volatility and the persistence of these transmission effects. That is to say, there are not confirmative findings about how a shock to one market influences the dynamic adjustment of volatility to another market and the persistence of these transmission effects. In the meantime, one of the most important motivations for considering the BRICS is that they are considered the growth engine of the world economy and their stock market is a very promising area for regional and global portfolio diversification. The impacts of the 2007–2009 global financial crisis on conditional volatilities in the BRICSs' stock markets may have significant implications for domestic and international investors.

The U.S. and BRICSs' stock markets are interrelated by their volatilities. These interdependencies indicate that in explaining the changes in volatility in the BRICSs' market, the part of the U.S. market cannot be ruled out a priori. Another consequence is that taking into account those transmissions should improve the accuracy of forecasts. Second, and with respect to the size and persistence of volatility transmission among the U.S. and BRICSs' stock markets, we find that one historical event, i.e. the 2007–2009 global financial crisis, has positive and large impacts on expected conditional variances, and only "large" shocks compared to the current level of volatility will result in an increase in expected conditional volatilities. Moreover, the size and the dynamics of the impact of shock are largely market specific, which has been illustrated by the fact that the BRICSs' stock markets with a higher degree of exposure to the U.S., e.g. Brazil, tend to be more heavily impacted by the 2007–2009 global financial crisis.

Finally, there is strong evidence in favour of increased amplitude of shocks in recently years. This intensity of shocks mainly stems from the increased integration of the U.S. and BRICSs' stock markets documented in the recent era. Consequently, had a shock similar to the one of the 2008 financial crisis occurred in the more recent years, the impact of it on expected conditional variance would have been significantly higher nowadays compared to the initial dates when the financial crises occurred. Nevertheless, these findings suggest that international investors should be cautious about simultaneously investing in market that exhibit contagion, since the comovements of the U.S. and BRICSs' stock markets in some degree will disappear the portfolio benefits when are most wanted.

However, the different response of the BRICSs' stock markets to the 2007–2009 global financial crisis provides valuable opportunity for international investors to benefit most from portfolio diversification. Similarly, and as we have focused on financial crisis, new insights may be gained by investigating the impact of other types of shocks on expected conditional volatility in the future. The impulse response analysis could also be applied to detect the impact of shocks on conditional covariances and then correlations, which is particularly alive in the financial literature and be of practical importance to financial practitioners in making optimal portfolio allocation decisions.

6. An industry analysis of the European financial market dependence

The recent sovereign debt crisis has renewed the interest in European integration and the Euro by policy makers, central bankers and researchers. Although concerns about the future of the common European currency never completely ceased, the crisis has caused an unprecedented challenge to the Euro and has called into question the homogeneity of European countries on which the success of the monetary union is built. Consequently, the crisis is not just a financial crisis but also a crisis of confidence in the strength of the monetary union.

Previous studies that investigate European equity market dependence have focused on the country level. However, many researchers suggest that factors at the industry level are likely more important drivers of changes in equity market dependence, particularly after the launch of the Euro.

Consequently, our empirical results for the impact of the introduction of the Euro show that many industries of countries with larger capitalization exhibit a dependence increase with their corresponding Euro-area markets. Specifically, most dependence dynamics of the industries in France, Germany, Italy, the Netherlands and Spain show a clear increase around the introduction of the Euro. Industries in Belgium and Finland have also become significantly more pan-Euro, despite the fact that these countries are relatively small. Furthermore, significant differences exist with regard to the impact of the Euro on industrial sectors. In particular, the Financials, Industrials, Consumer Goods, Utilities, Technology and Telecommunications industries show a significant increase in dependence in most countries. The effects are particularly strong statistically and economically for Financials, Utilities, Technology and Telecommunications, which show a remarkable dependence increase with their corresponding Euro-area indices in almost all countries. By contrast, there is no clear increase for most of the industries in countries outside the Euro area such as Denmark, Sweden, Norway, and the United Kingdom.

With regard to the more recent episode, we observe higher equity market dependence between European countries and industries around the collapse of Lehman Brothers. Moreover, we find that the European sovereign debt crisis substantially slowed the increase in equity market dependence for most industries. The latter holds particularly true for industries in high-risk countries such as Greece, suggesting that country-specific factors may matter more than before.

Specifically, the change of European market dependence depends mainly on an industry's export intensity and interest rate sensitivity, where higher export intensity and interest rate sensitivity are associated with a stronger propensity to exhibit an increase in dependence. In addition, an industry's competitiveness and a country's financial development and economic openness are also (but less strongly) related to the change in cross-market dependence. These results have important policy implications since the identified determinants of dependence such as export intensity, competitiveness or financial development can be affected by policy. To illustrate, the current discussions between the European Union and the United States about the Transatlantic Trade and Investment Partnership (TTIP) should affect the exports and competitiveness of firms in the Euro area and thus the level of dependence or integration.

These new findings with regard to the impact of the Euro on financial market dependence in Europe in general and on different industries in particular complement prior studies on macroeconomic determinants of financial market dependence / integration.

European equity market dependence

The introduction of the Euro as a common currency was a project drawn up by the leaders of the EU to advance the goal of a closer union among European countries. It was identified by the Delors Report as a further step toward the creation of a single European market in order to create price stability, reduce costs of business, and promote economic performance by reducing barriers to the flow of labor, goods, services, and, particularly, capital across national borders. The ultimate goal of this process is the creation of one single European economy, where resource allocation across national borders is as easily done as in any other national economy of comparable size (e.g., the U.S. economy), with concomitant benefits in terms of more efficient allocation of resources and risk sharing. As recommended by the Delors

Report submitted in 1989 and adopted by the leaders of the EU member states, a multistage process started in 1990, leading to the adoption of the Euro as common currency. The first group of countries to join the Euro was announced in January 1998, and the common currency was introduced in January 1999.

Since its introduction, the Euro has had significant economic effects along many different dimensions. With regard to the real sector, the Euro has been attributed to the promotion of competition, trade, capital investment, and the alignment of the national Euro-area business cycles. These effects suggest higher levels of economic integration than prior to the Euro, which has also led to increased cross-border mergers and acquisitions.

In particular, the introduction of the Euro has caused yield curves to converge within the Euro area. As a result, capital market financing has become more important due to the convergence of nationally segregated financial markets towards the standards of the most sophisticated, liquid markets. The overall effect has been a reduction in the cost of capital within the Euro area, which is typically interpreted as a sign of increasing capital market integration and which has been attributed to general reductions in the exposure to exchange rate and market risk. This has led to increased cross-border investment flows within European financial markets and the reorganization of hitherto country-based portfolios toward industrial sectors by institutional investors.

7. The case of sovereign debt of stressed euro-area countries

Unraveling the Ariadne’s thread of the euro area debt crisis and its far reaching implications is by no means an easy task. During the crisis several euro area countries were put under financial stress and under enormous pressure to finance their debt, while other countries, as a result of investors’ flight to safety, were faced with unprecedented low debt-servicing cost. By December 2009, when it became clear that Greece was significantly constrained from accessing the sovereign debt markets, and especially after May 2010 when Greece received financial assistance from euro area countries and the IMF, concerns about debt financing spread to the rest of fiscally vulnerable southern euro area countries and Ireland. Subsequently, sovereign bond spreads and Credit Default Swaps (CDSs) of stressed euro area countries increased dramatically during the crisis, exhibiting also elevated volatility.

It is essential to build on the notion of market frictions and thereby on ‘basis’ to reveal market preferences with respect to sovereign debt markets in the euro area. In particular, we must test whether market preferences are symmetric and thereby market participants attach equal weight to both positive ‘basis’ and negative ‘basis’. In case that deviations from symmetry would be observed that would indicate that market underlying preference leaning towards a ‘basis’ with certain sign and thereby leaning towards a specific trading strategy.

Overall, our empirical evidence shows that market preferences shift towards pessimism, notably for Greece post the first bail out programme in spring 2010. Such breaks could be caused by unexpected events, but also policy interventions to address the crisis, which could alter the shape of the loss function, and thereby market preferences. We also examine the impact of fiscal and financial factors on market preferences. The evidence finds that fiscal fundamentals such as outstanding debt ratio, but also fiscal governance such as fiscal rules, drive market preferences. In addition, corporate credit risk affects market preferences over sovereign debt in the short run.

In spring 2007 there was hardly any evidence of the subsequent turbulence in sovereign bond markets in the euro-area. At the time, the yields of sovereign bonds across euro area Member States appeared to be converging. In fact, in July 2007 the yield of the 10-year German sovereign bond was somewhat lower than the Irish equivalent. However, this situation changed dramatically with the advent of the global financial crisis. As investors fled to safety, German bonds became more appealing to them than bonds of fiscally exposed economies within the euro area. As a result these countries faced the reality of rising borrowing costs. By December 2009 it became clear that Greece was significantly constrained from accessing the markets in order to finance its sovereign debt. The Greek sovereign bonds spread over five years maturity reached 215 basis points above the swap rate at the end of December 2009. The equivalent spread for Ireland was about 45 basis points and 28 basis points for Portugal. In spring 2010, Greece requested financial assistance from the EU and the IMF as spreads and CDS reached record high levels and borrowing from the market was hardly possible. Greek spreads continued to rise despite financial assistance was provided, reaching 1100 basis points in March 2011, whilst contagion effects to Irish and Portuguese spreads meant that their sovereign spreads hiked to 772 basis points and 636 basis points respectively. Regarding the borrowing cost of Spain and Italy the situation deteriorated in 2011 as the contagion from the Greek sovereign debt crisis also affected them. The first financial assistance programme to Greece was designed to contain the crisis.

But, the programme proved to be rather insufficient to deal with the chronic rigidities and anachronistic structures of the Greek economy that had led to the crisis. As a result, the Greek spread reached values close 6000 basis points in the first quarter of 2012 prior to the Private Sector Involvement (PSI). In spring 2012, an unprecedented haircut to private investors in Greek sovereign bonds took place of the value of 100 billion euros.

As in the case of spreads, CDS for the euro area countries in the periphery follows similar trends, though they reached values above spreads in the pick of the sovereign debt crisis in the euro area, prior to the Greek PSI. It is interesting to note that prior to the euro area sovereign debt crisis sovereign CDS had been rather neglected. Alas, the surge in Greek CDS in 2010 enhanced the importance of sovereign CDS market for the euro area. A plethora of factors that contribute towards high CDS have ben put forward. Declining risk appetite, falling market liquidity, short-term expectations, imminent increases in sovereign bond issuance, and credit rating downgrades, that is migration risk, all raise CDS. Economic catastrophe risk might be the main underlying drive of high CDS.

However, the challenge is to quantify such animal spirits, to quantify market behaviour. It is most crucial to posses a way of revealing sovereign market preferences in the euro area, and thus a way of decoding market behaviour and fit a loss function based on the 'basis' to reveal market preferences over the debt of euro area countries under stress. The reported evidence shows that the market remained rather pessimistic, despite the bail out of Greece in spring 2010 and the Portuguese and Irish bail out thereafter, over prospects of effectively dealing with the euro area debt crisis. In fact, all evidence shows that the sovereign debt market shifted preferences to higher levels of pessimism over time, and in particular for periods post Greek and Portuguese bail out, whilst outstanding debt and fiscal governance played a key role in affecting those preferences. The observed asymmetries in the market's loss function reveal that this pessimism is warranted as a sequence of bail out programmes by EU, ECB and IMF has clearly failed to reassure the market that the euro area debt crisis is over.

Instead, policy interventions that aim at reducing the outstanding debt and strengthening fiscal rules as a way to raise market’s optimism regarding the ongoing euro-area debt crisis should be supported. Essentially, revealing market preferences in the aftermath of a policy intervention would act as an early warning mechanism of assessing the effectiveness, and thus credibility, of such intervention. In the case that the revealed market preferences indicate that the effectiveness of such intervention is questionable, this would assert peer pressure that would enhance efforts towards fiscal consolidation and sustainability in a timely manner.

8. Evidence from the Greek sovereign bonds market

Since the inception of the common currency, European Monetary Union (EMU) countries have experienced a convergence of their long-term interest rates. The establishment of the EMU created expectations among peripheral countries (such as Greece, Portugal, and Ireland) for sustainable economic growth due to the political and financial stability that the EMU introduced. The single currency implied a common monetary policy with very low interest rates set by the European Central Bank (ECB) that would be based initially on low German inflation rates. Thus, the countries with high inflation rates at that time (Greece, Portugal, and others) gained credibility from this. However, this loose monetary policy prevented the inflation rates of these countries from converging with the EU average inflation rate over time. This situation created problems such as a lack of competitiveness and the deterioration of their fiscal balances.

In 2007, after the bursting of the subprime mortgage bubble, the world long-term interest rates increased. As some authors claim, the fundamental macroeconomics of each country were the primary reason for this increase. On the other hand, many authors argue that the increased volatility of the European government bond yields was a result of a contagious effect from the Greek crisis. This was hypothesized because Greece was the first country that claimed financial support from the EU and the IMF, in May 2010. Greece’s twin deficits, macroeconomic imbalance, and its unsustainable debt path were the main concerns of the international financial community due to a possible contagion to other European countries.

The results of all the methods considered do not confirm the hypothesis of contagious effects stemming from the 10-year Greek bond to the periphery or the core European countries. On the contrary, it is evident that there is a decoupling in the correlation dynamics between the yields of the PIIGs (Portugal, Ireland, Italy, Greece, and Spain) and the yields of the core eurozone. This result is in line with previous findings of the bond determinants literature that, for the first time since the inception of the euro currency, market practitioners began to pay attention to the macro fundamentals of each country and separately evaluate each EU country’s sovereign debt market. The debate over the existence or not of contagion effects from Greece could be augmented by examining any possible spread of the Greek crisis to the newly evolving shadow banking system, which would include securitized bonds repurchase agreements.

9. The double hazard of underinvestment and unemployment in the Euro area

A worrisome characteristic of the euro area is the massive fall in overall investment activity. Gross fixed capital formation in the core euro area is nearly 20% below the share in GDP it had in 2007, the year before the global financial crisis erupted. In contrast, investment activity in other economies such as the US, Japan or the non-Euro Nordic countries has been steadily recovering since 2010. The fact that investment activity as a share of GDP is declining while the latter remained sluggish after the crisis implies that the reduction of capital investment in volume terms is even more pronounced in the euro area relative to the other economies. Moreover, the fact that investment in Germany is approaching its pre-crisis intensity means that the rest of the euro area economies suffer an even larger toll.

However alarming such developments might have sounded elsewhere, they failed to grasp the attention of European policy makers. Too preoccupied with stemming off the debt crisis as they were, European authorities insisted on the priority of fiscal rehabilitation across member states as a condition for the return of growth in the monetary union. But despite the fiscal progress achieved by the debt-stricken economies and the unprecedented monetary ease offered by the European Central Bank (ECB), the signs of recovery remained dim and this –at long last– led to a focus on the issue of underinvestment in the euro area.

Many researchers acknowledge that investment activity in the euro area was lagging far behind other advanced economies even before the financial crisis. For the euro area to have stayed at a par with other advanced economies, they estimate that that it should have invested more than €7. 5 trillion over the period 1999-2007. As a matter of fact, the gap not only didn't close but has since been further widened. The collapse of investment activity is found to be more worrisome in the debtstressed countries of the euro area periphery as a result of falling demand and front-loaded fiscal consolidation. Additionally, social tensions generated by the austerity programs create a multitude of political and economic uncertainties that hinder potential investment plans..

At the same time, an unprecedented rise in unemployment is ravaging the euro area. In comparison with the same group of countries as before, the euro area is found to be the only large economy, where unemployment has thus far exceeded the pre-crisis level by more than half, remains double-digit and is still rising. Again, the fact that unemployment is being reduced in Germany implies a much bleaker situation for the rest of the euro area members.

By juxtaposing developments in unemployment and net fixed capital formation over the period 1991-2014, an impressive mirror pattern emerges. A strong negative correlation between unemployment and total investment is established and the same holds for its components of the private sector or the General Government. This suggests that a deeper link might exist between the twin malaises in the euro area and is worth further investigation.

The issue is not a novel one and the relationship between capital investment and equilibrium unemployment has been extensively debated in the literature over the last two decades. Equilibrium unemployment is increasing with union power and unemployment benefits, decreasing with product market competition, but remains totally unaffected by changes in the capital-labour ratio. The implication was that capital-inducing policies are ineffective in addressing high levels of unemployment, and it is only the implementation of labour market reforms that could bring it down in the long run. Both the assumptions and the neutrality thesis were subsequently challenged by several empirical and theoretical studies that continue to the present day.

The interactions between investment and unemployment became the subject of controversy in the US as well. Taylor (2011) produced a striking negative correlation between the two and suggested that "[e]ncouraging the creation and expansion of businesses should be the focus on government efforts to reduce unemployment.” In contrast, Krugman (2014) argued that the finding is an artifact brought about by the bust in residential investment after the global crisis and asserted that causation more likely runs from unemployment to capital formation rather than the other way around.

Quite often, the debate was laden with theoretical or even ideological interpretations. Thus, the real issue is to investigate whether and to which extent unemployment can be influenced by investment activity.

Equilibrium unemployment is affected by capital investment as long as the elasticity of substitution between capital and labour is not too low. In the euro area it is shown that wage shares have not remained constant over the last two decades, thus the investment impact on unemployment is expected to be strong. A cross-country estimate of unemployment equations finds the investment effect to be correctly signed and statistically significant, in contrast to the weak effect that labour market reforms seem to play in promoting employment. The estimates can be used to calculate the investment gap in the euro area and determine how much of a new initiative on private and public investment is needed to restore employment.

Future research will differentiate between private and public investment and examine the optimal capital accumulation paths in the presence of fiscal constraints in each particular country. On the econometric side, the use of other economic variables (e.g., interest rates, money supply, etc) as alternative instruments is going to be examined as long as they qualify as exogenous to the model. Alternative estimation methods that bypass the use of instrumental variables, such as (conditional) Maximum Likelihood may also be employed after an explicit parameterization of the endogenous relationships in the model.

10. Reflections of corruption and tax evasion on the Greek tragedy

Corruption and the misuse of government revenue often provide the moral justification for tax evasion. Indeed, corruption and tax evasion are often highly persistent and correlated. For example, there seems to be little disagreement to the claim that the current Greek economic tragedy is a play that involves both of these issues.

Political corruption, evidenced by a series of scandals, together with massive tax evasion and low quality of public services have been the case in Greece for at least the last three decades. This extensive corruption has resulted in a decline in social capital, a mutual distrust between citizens and the government and a social legitimization of tax evasion and bribery. We aim to focus on the role of norms in fostering corruption and tax evasion and argue that various manifestations of corruption may coexist and reinforce each other. The corrupt behavior of one group may become a strategic complement for another. In such a context, whenever agents expect other agents to be corrupt, they always find it optimal to be corrupt as well. An example of such a vicious circle is that of widespread political corruption and high tax evasion. We can say that there is a model economy that comprises two distinct groups of agents: private citizens and politicians. Citizens decide how much of their income to report to the tax authorities, taking into account the exogenously given probability of inspection and the size of the delinquent tax penalty. A certain fraction of tax revenue is supposed to be spent for the provision of a public good. Politicians, on the other hand, have the opportunity to peculate a certain fraction of the public funds that are earmarked for the public good. Crucially, each agent cares not only about her own consumption, but also about the quantity/quality of the public good.

In such a context, strategic complementarities may arise, leading to multiple self-fulfilling equilibria: a .good.(.bad.) equilibrium with low (high) corruption, low (high) percentage of tax evasion and a high (low) share of output spent on the public good. The existence of multiple equilibria can help us understand why countries with similar background are characterized by different levels of corruption and tax evasion. It can also provide some insights as to why these two phenomena are so difficult to eradicate.

We show that in the presence of multiple equilibria driven by strategic complementarities in corrupt activities, standard policies, such as fines, are not fully effective. The reason is that whereas standard deterrence policies may increase the cost of tax evasion and corruption, they are unsuccessful in eliminating the strategic complementarity between groups.

We then assume social stigma costs associated with being involved in corrupt activities, i.e., individuals who commit unlawful actions and get caught are stigmatized by society. If this social cost is sufficiently high, then the multiplicity of equilibria is eliminated and the economy converges to a unique equilibrium. The intuition behind the success of social stigma in eliminating the multiplicity of equilibria lies in that it effectively addresses the strategic complementarity aspect of corruption.

Existing evidence suggests that there is a positive correlation between corruption and tax evasion. The two of them often coexist and reinforce each other. Moreover, there seems to be a negative correlation between these two phenomena and spending on publicly provided goods, such as education and health.

Policies that raise the social cost of participation in corrupt activities are most important. These policies are particularly useful in the presence of multiple equilibria as an equilibrium selection mechanism, since they can put an end to strategic complementarity in corrupt activities.

Another strand of the related literature has highlighted the fact that countries with similar fiscal systems and deterrence policies often exhibit different levels of compliance. To explain such differences, researchers have introduced some form of moral costs related to tax evasion.

Among the main conclusions of the literature are that, first, non-evading individuals are the ones that view tax evasion as immoral; and, second, individuals who have friends that evade taxes tend to evade more themselves. In addition, the literature finds that, in societies with a stronger feeling of social cohesion, tax compliance is higher, as well as that social norms are a crucial determinant of tax evasion.

Whether a policy will be successfully implemented or not depends on many factors that cannot be easily accounted for in a model, not even for standard policies such as fines and auditing probabilities. We assume that if an agent is audited and exposed as an evader (embezzler) she (he) suffers from an internal moral cost. Interestingly, we found that, in the presence of a sufficiently high cost, we can eliminate the multiplicity of equilibria. Strategic substitutability implies that it is too costly for agents to follow the other agents strategies.

What are the policies that a government can adopt in order to increase the moral costs associated with being involved in corrupt activities? A wide range of governmental-induced policies can contribute to a change in the culture of paying taxes. Some of these policies include: the instrumental use of the mass media in order to highlight the ethical aspects of tax compliance and at the same time to increase peer pressure on tax evaders (e.g., publicizing individual tax returns or pronounced cases of tax evasion); abolishing policies that signal that non-compliance is socially acceptable, such as tax amnesties; highlighting the direct link between tax compliance, tax revenue and the public services associated with it; the instrumental use of a number of organizations in the fight against corruption so as to further reinforce compliance as the ethical pattern of behavior; and addressing perceived inequities in the way people feel they are treated.

Several of these measures have been adopted in a large number of countries. Notable examples are Sweden, Norway and Finland, where individual income tax filings are publicly available. In California, the names of the top 500 delinquent taxpayers are published on the internet annually. Also, the U.S. Attorneys office in the district where a case is prosecuted normally issues a press release when a tax evader is indicted, once he or she is convicted, and again when the evader is sentenced.

In New Zealand, the Commissioner of Inland Revenue regularly releases the Tax Evaders Gazette, which lists those taxpayers, individuals and companies, who have been prosecuted or had penal tax or shortfall penalties imposed for evading their tax obligations. Several other countries follow similar practices.

In India, a tax collection campaign took place in 1997, which was highly successful and brought a substantial increase in revenue, mostly because the state had hired two marketing companies that used moral suasion to increase tax compliance.

A web site was later created that received almost 22,500 reports between the years 2010 and 2012. This policy contributed not only to an increase in arrests and convictions, but also to a public reward for honest officials. Also, in the Philippines, approximately 1 million scouts were recruited and worked with the government in order to conduct inspections throughout the country.

Finally, an extensive campaign for the creation of a tax compliance culture took place in Israel during the period 1938-1960. Before 1948, Palestine was under British mandate. While compliance with British tax law was low and tax evasion was encouraged, the Jewish community of Palestine had established a series of voluntary taxes, designed to finance mainly military operations. Among the means used to induce compliance with the community taxes were special movies, slogans, posters, public conferences, lectures, etc.

Overall, the purpose of actions such as those mentioned above is to increase the moral cost, via the use of peer pressure, and eventually to inculcate a culture of tax compliance. Of course, reinforcing tax morale, through such measures, needs time to yield results. Yet, not only can it have long-lasting effects, but it can also increase the effectiveness of standard enforcement policies.

Motivated by the ongoing Greek economic tragedy, which we partly view as the outcome of strategic complementarities in corrupt actions among different societal groups, we analyzed the issues of political corruption and tax evasion in the context of a simple economy with a publicly provided good. We showed that strategic complementarities may arise among agents, which lead to the existence of two stable equilibria. One of these equilibria is characterized by high rates of corruption and tax evasion and a low level of the public good, while the other equilibrium exhibits low rates of corruption and tax evasion and a high level of the public good.

We must point out the effectiveness of different policies in reducing the rates of evasion/embezzlement as well as their ability to eliminate the multiplicity and resolve a possible coordination failure. To this extent, we showed first that standard deterrence policies, i.e., changes in the probabilities of being caught or in the penalty rates, can reduce the rates of evasion/embezzlement, but cannot eliminate the multiplicity of equilibria. Of course, this result is also consistent with a variety of similar approaches that go beyond enforcement to incorporate trust and other similar notions, e.g., intrinsic motivation, tax morale, slippery slope, deference versus defiance, etc. We used the concept of stigma to illustrate our point that the establishment of strong moral values can be a crucial supplement to deterrence policies. In other words, we do not question the importance of fines imposed on tax evaders and corrupt politicians. After all, if a person otherwise inclined to evade taxes, or to embezzle public funds has internalized the social stigma, his behavior will respond in usual ways to changes in fines, i.e., he or she will evade or embezzle less when fines increase.

There is first a correlation between attitudes towards tax evasion and perceived political corruption and second a causal effect from perceived political corruption to tax evasion.

Finally, individuals are more likely to respond either to enforcement or to tax services if they believe that the tax administration is honest; that is, if trust in the authorities can have a positive impact on compliance. Nevertheless, we think that in practice the establishment of such a trust in societies with a high level of corruption is extremely difficult. Hence, these results can explain the persistence of corruption and tax evasion and the difficulty that often honest leaders face when trying to eradicate them.

11. An analytic overview of the crisis in the Euro area

The year 2009 was the tenth anniversary of the creation of the euro. Throughout the year, academic conferences were held to celebrate what at that time was widely considered to be the success of the boldest attempt ever by diverse sovereign states to reap the efficiency gains of a single currency. Despite the earlier misgivings of some economists about the feasibility of a common currency in Europe, by 2009 evidence of the euro’s success was plentiful. The euro had created a low-inflation, low-interest-rate environment (even for formerly high-inflation countries) conducive to sustainable growth. It had fostered trade integration and the integration of financial (and, to some extent, labor and commodity) markets among the members of the euro area. The number of participating countries had risen from eleven in 1999 to sixteen in 2009. Notwithstanding the eruption of the global financial crisis in August 2007 and its intensification in September 2008 with the collapse of Lehman Brothers, the euro area had been relatively unscathed by the effects of that crisis. To mark the euro’s tenth anniversary, at the end of 2009 the European Commission published a study that sought to explain the reasons the skeptics of the single currency could have been so misled in their assessment of the euro’s feasibility.

Yet, amidst the celebrations in 2009, in Greece a shock was unfolding that, by the end of the year, would materialize into a full-blown financial crisis. During the ensuing years, the euro crisis broadened and deepened, threatening the sustainability of Europe’s common currency. What had started as a sovereign-debt crisis in Greece spilled over to that country’s banking system, creating twin crises. In other euro-area countries, including Ireland, Spain and Cyprus, the crises originated in the banking systems and spilled over to the sovereign debt. While at the time of this writing (August 2013) the euro-area crisis is by no means over (although it has subsided considerably), the events of the past four years provide the opportunity to take stock of what went wrong and what can be done to prevent future crises in the euro area.

In order to gain a better understanding of the issues involved, on May 23-24, 2013 the Bank of Greece held a conference on "The Crisis in the Euro Area." The papers presented at the conference examined two main sets of issues. One group of papers, adopting a union-wide perspective, assessed the aspects of the euro area's institutional architecture that, with the benefit of hindsight, may have contributed to the crisis, and the policy responses to the crisis at the union level. A second group of papers focused on developments in three crisis countries -- Greece, Ireland, and Portugal. This issue of the *Journal of Macroeconomics* is comprised of the papers presented at the Bank of Greece conference and the discussions of those papers at the conference.

The adjustment mechanism

An underlying feature of the euro-area countries that have been hit by crises is that they experienced large and growing current-account deficits in the years leading up to the crises. At the time of the inception of the euro area, a prevailing view was that current-account imbalances among participating countries should not be a major concern in a monetary union. Underlying this view is the idea that intertemporal utility maximization helps ensure that diverging current-account positions are the natural consequence of a convergence process among countries with different levels of economic development. In the presence of integrated markets, countries with relatively-low per capita income, such as Greece, Ireland, Portugal and Spain, should attract capital inflows because of high productivity growth and relatively-high rates of return. As long as (i) the investment financed by the capital inflows provides a rate of return that exceeds the cost of borrowing (so that the accumulated foreign liabilities can be repaid) and (ii) any increased consumption associated with the imbalance is temporary and desirable for purposes of intertemporal consumption smoothing, current-account deficits in a monetary union (according to this view) are nothing to worry about.

Outbreak of the Greek crisis

Greece's current-account deficit swelled from 11.5 per cent of GDP in 2001 (the year in which Greece joined the euro area) to 18 per cent in 2008. Under a well-functioning fixed-exchange-rate regime (and in the absence of a fiscal-transfer mechanism), such large and sustained external deficits are not expected to occur. For example, under the classical gold standard of the late-19th and early 20th centuries, countries that experienced current-account deficits would typically experience gold outflows, and, with money and credit growth tied to gold, lower money and credit growth. The lower money and credit growth would cause prices and wages to fall (or would lead to reductions in the growth rates of prices and wages), helping to restore competitiveness, thus eliminating the external deficits. Conversely, countries with current-account surpluses would typically experience inflows of gold, which led to rises in money and credit growth, pushing up prices. The appreciation of the real exchange rate would help eliminate the current-account surpluses.

Greece’s experience during the period 2001-2009 demonstrates what happens when a fixed-exchange-rate regime does not work satisfactorily. Although the country’s large current-account deficits signaled a competitiveness problem, capital continued to flow into the country until 2008-2009, pushing up money and credit growth, which, in turn, increased inflation and caused competitiveness to deteriorate further. During the period 2001-2009, annual money growth averaged 8.8 per cent in Greece; credit growth to the private sector rose by 16.7 per cent a year. During that period, Greece’s current-account deficit averaged 13.4 per cent a year. In contrast, for Germany, which had an average current-account *surplus* of 4.4 per cent during the period 2001-2009, M3 growth averaged 5.7 per year, and credit growth to the private sector averaged 2.7 per cent a year. The relative flows of money and credit led to a 15 per cent appreciation of Greece’s real exchange rate (in terms of consumer prices) relative to that of Germany. Since Greece and Germany shared a common currency, the appreciation of Greece’s real exchange rate relative to that of Germany was entirely due to movements in relative prices.

The rise in Greek inflation caused the real interest rate to fall, leading to more borrowing. Increased government borrowing led to deterioration in competitiveness through two main channels. First, to the extent that Greek producers provide differentiated tradable goods -- for example, Greek islands are not perfect substitutes for non-Greek tourist destinations -- the producers face a negatively-sloped demand curve (since they produce a differentiated good). In this situation, a rise in prices leads to a reduction in the quantity demanded of tradeable goods (that is, a movement along the demand curve rather than a shift in the demand curve) -- Greek products lose competitiveness. Second, as the government borrowed (and spent) more, it pushed up the prices of non-traded goods relative to traded goods. Wages in the non-traded-goods sector rose relative to wages in the traded-goods sector. The former increases, in turn, spilled over to the traded-goods sector, creating a “Dutch-disease” effect under which the increase in costs in some sectors spills over into other sectors. To the extent that the prices in those other sectors could not absorb the increase in costs, because, for example, prices could not be increased due to international competition and/or productivity growth was insufficient to offset the rise in costs, there was a loss of international competitiveness.

Correspondingly, the current-account deficits led to a build-up of (mainly) government debt. The stock of Greek government debt essentially doubled between 2001 and 2009, rising from € 151.9 billion to € 299.7 billion; during the same period, the share of Greek sovereign debt held by non-residents jumped from 43.4 per cent to 78.7 per cent. In 2009 the markets recognized that Greece’s debt dynamics were not sustainable; there was a sudden stop of capital inflows and the Greek sovereign crisis was underway.

The adjustment process did not operate in the euro zone because for many years investors did not draw a distinction between the sovereign debt of the core countries and the sovereign debt of the peripheral countries, such as Greece. Instead, in the years preceding the outbreak of the Greek sovereign-debt crisis, investors pushed interest rates on Greek (and other) sovereigns down to near German sovereign levels . Prior to 2008-2009, the markets failed to incorporate Greece’s deteriorating fundamentals into the price of Greek sovereigns. Consequently, there was no mechanism to adjust money and credit growth, and Greece and other countries were able to run large, current-account and fiscal deficits on a sustained basis without taking remedial policy measures.

North versus South

A similar conclusion emerges in a comparison of the current-account positions of euro-area crisis countries as a group with (selected) euro-area northern countries as a group.

First, in monetary unions comprised of sovereign states that have not mutualized a guarantee on public debt, current-account deficits matter.

Second, a well-functioning monetary union requires a well-functioning adjustment mechanism. To ensure that the adjustment mechanism is effective, the institutional design of the union needs to include mechanisms mandating that participants will take measures that eliminate the external imbalances. In this connection, a new Macroeconomic Imbalance Procedure (MIP) was put in place in December 2011 with the aim of preventing and correcting macroeconomic and competitiveness imbalances among all EU countries. The MIP seeks to identify potential risks of imbalances early on so as to prevent the emergence of unsustainable imbalances and correct imbalances already in place. To do so, the MIP relies on a graduated approach that reflects the gravity of imbalances. Sustained imbalances can eventually lead to the imposition of sanctions on euro-area Member States, should they repeatedly fail to meet their obligations under the MIP. Additionally, on 20 February 2013, the EU Council, the European Parliament and the European Commission reached agreement on two EU regulations -- the so-called “two-pack”. One regulation aims to prevent the build-up of significant fiscal imbalances by strengthening the economic and budgetary surveillance of euro-area member states and improving policy coordination among those states. The other regulation enhances economic and financial surveillance of euro-area member states threatened with “serious financial difficulties” (Council of the European Union, 2013).

The costs of adjustment

As mentioned above, a major cost of monetary unions is the reduced flexibility to adjust to asymmetric shocks. In the face of such shocks, real-exchange-rate adjustments in individual countries need to be brought about entirely through adjustments of domestic prices and wages, that is, through internal devaluations. The euro-area crisis has shown, however, that it is more difficult to effectuate the needed adjustments in the present environment than had been assumed in the earlier literature on monetary integration.

Several factors have contributed to this situation.

• The earlier literature was written against a backdrop of higher inflation, both in Europe and globally. With the decline in inflation to the low single digits in the euro area, it has become more difficult to achieve a given internal devaluation. For example, if inflation in a monetary union averages one per cent a year, a country that needs to regain price competitiveness of the order of ten per cent will need to run a zero inflation rate for ten years. If, however, inflation in the monetary union averages two per cent a year, that same country, by running a zero inflation rate, will have recovered its competitiveness in five years. Thus, an internal devaluation may be slow and costly (in terms of output loss and a rise in unemployment) in a monetary union that features a very-low inflation rate. Everything else held equal, the lower the average inflation rate in a country’s trading partners, the slower and more costly an internal devaluation.

• Rose (2000) presented evidence indicating that a monetary union leads to increased trade among the members of the union (over and above those derived from the elimination of any exchange-rate uncertainty stemming from fixed exchange rates among separate currencies). Several conclusions emerged from this evidence. (1) Since monetary union encourages trade integration, it also leads to greater business-cycle correlation (through the higher trade linkages) among the members of the union. (2) A corollary of greater business-cycle correlation is that monetary union itself will make asymmetric shocks between countries less likely, reducing the advantage of a country-specific monetary policy.

• Two comments are in order. First, a main casualty of the euro-area crisis is the idea that trade criterion effects could reduce asymmetries among countries in a monetary union. Instead, increased trade integration appears to lead to regional concentration of industrial activities. The basic reason here is that trade integration tends to lead to agglomeration effects under which production becomes relatively cheaper (due, for example, to the access of firms to pools of skilled labor, which, in turn, provides employment opportunities to labor) in areas where there has been a clustering of economic activity. These agglomeration economies, in turn, make it profitable to concentrate production so that firms can benefit from (external) economies of scale. Consequently, any trade-creation effects of the euro appear to have led to reduced -- instead of increased -- business-cycle synchronization. Second, to the extent that the euro has resulted in greater intra-euro trade, the larger is the magnitude of real exchange rate adjustment that needs to take place without the benefit of a nominal adjustment. As mentioned above, in a monetary union that features a very-low inflation rate, an internal devaluation is slow and costly. The larger the share of intra-union trade among the participants, the larger that part of trade that can regain competitiveness only through an internal devaluation.

• The crisis countries have had to undertake large fiscal consolidations. The earlier literature assumed that a given fiscal adjustment was associated with a fixed fiscal multiplier. However, recent work on fiscal multipliers has indicated that the multipliers are considerably higher in a crisis environment than in more tranquil situations.

Several factors account for this circumstance. First, fiscal multipliers tend to be higher than otherwise when economies are in recessions and there is a great deal of slack in an economy. Second, in situations of very low nominal interest rates, central banks have limited scope to reduce policy rates to offset the contractionary effects of fiscal consolidation on real economic activity.

Third, in relatively-closed economies, such as the Greek economy, fiscal multipliers tend to be larger than in more open economies. Any decline in demand hits domestically-produced goods more than imports. The decline in demand for domestic production, then, affects output more than if the economy were more open. Consequently, fiscal consolidations in crises countries have featured moving targets as efforts to reduce deficits have had especially large effects on income, reducing revenues, and necessitating further fiscal consolidations.

EMU 2.0

DRAWING LESSONS FROM THE CRISIS - A NEW FRAMEWORK FOR STABILITY AND GROWTH

Was the strategy and specific actions to cope with the crisis appropriate? Was the priority given to preserving financial stability justified? Are stability and growth objectives possible in EMU 2.0? What is the scope for national economic policy in the new policy framework?

Decisive initiatives by EU authorities, supported by significant progress to strengthen further economic and financial governance and reduce macroeconomic imbalances, succeeded in preserving the stability and integrity of the euro area. At the same time, some weaknesses in policy action were corrected with a shift in focus towards improving the soundness of the banking sector and moving towards a banking union.

It is argued that the priority given by EU policy action to financial stability was fully justified. However, it is also clear that robust economic growth is essential for durable financial stability and, therefore, the creation of conditions for economic recovery and sustainable growth must be constant objectives of public policy.

It is clear that policies enhancing both stability and growth are possible in EMU and include *economic rebalancing*, which will have broader positive implications than usually assumed, the *banking union* project, which is essential for financial stability and important for growth and new initiatives to achieve an *integrated internal market*. To the above should be added actions directly enhancing economic growth such as policies supporting private and public *investment* and more *growth-enhancing policies* at both central and national level.

Although the crisis has not yet been overcome and some parts of the new legislation have not yet been fully implemented, it can be argued that there is ample scope for economic policy at national level, as weaknesses in EMU's architecture have been largely corrected and systemic risks greatly reduced. However, legacy problems, such as the excessive government debt burden in some countries, must be resolved.

1. The emergence of the sovereign debt crisis and its management

Shortcomings in EMU’s institutional framework did not allow timely preventive action before the emergence of the crisis and, also, complicated corrective action when the crisis occurred. From the analysis of the overall management of the sovereign debt crisis and the specific action undertaken to contain and overcome it, useful lessons can be drawn for the design of public policy in the future at EU and national level.

The sovereign debt crisis emerged in economies with sizable imbalances and structural weaknesses….

The global financial and economic crisis of 2008-2009 was transformed in 2010 into a sovereign debt crisis in the euro area, hitting countries with sizeable macroeconomic imbalances and structural weaknesses. The crisis intensified in 2011 and the first half of 2012 threatening the stability and integrity of the euro area. Both internal and external macroeconomic imbalances had been the main source of difficulties in Greece and Portugal, while banking sector weaknesses were sources of fragility in Ireland and Spain, not least because the necessary restructuring of banks in those countries impacted negatively on public finances, notably in Ireland. It is noted that the fiscal deficit in Greece reached 15.2% of GDP in 2009 and government debt 126.8% of GDP. In Portugal, fiscal and external imbalances were significant at the start of the sovereign debt crisis - though lower than those in Greece – but the very high private sector indebtedness (225% of GDP in 2009, compared to 122% of GDP in Greece) was contributing to financial fragility.

Greece was the first euro area country to be hit by the sovereign debt crisis in early 2010 followed by a number of other member states - Ireland and Portugal, in late 2010 and mid-2011, respectively, Spain in 2012 and Cyprus in 2013. All countries faced serious weaknesses, different in each case, but with a common implication, difficulties in accessing international capital markets at normal financial terms. These economies, already seriously weakened by the global crisis, did not possess the necessary resilience and adaptability to overcome the sovereign debt crisis with their own means. Moreover, engulfed in the spiral of the crisis and its implications, they were unable to benefit from the recovery of the global economy and international trade in 2010, which followed the deep recession in 2009, as was the case of export-oriented economies with sound fundamentals, Germany and Finland, for example.

While Germany and Finland recovered rapidly in 2010, recording GDP growth rates of 4.1% and 3.0%, respectively, up from strongly negative growth rates in 2009, economic recession in Greece deepened to -5.4% in 2010 and further to -8.9% in 2011. In Ireland and Spain, real GDP growth rates continued to be negative in 2010 but the recession was less deep than in 2009, while in Portugal it remained temporarily positive in 2010 but turned negative in the following three years. The euro area as a whole registered a positive growth rate in 2010 while the global economy recorded growth of 5.4%, up from 0.0% in 2009 and the volume of international trade in goods and services rose by an impressive 12.6% after a sharp fall (-10.6%) in 2009.

The euro area economy was recovering strongly enough in 2010 from the deep recession in 2009. This suggests that a better diagnosis of the causes and nature of the crisis and, as a consequence, its more appropriate management, including better designed EU/IMF economic programmes, could have led to the impact of the crisis being much less severe. Indeed, emerging evidence suggested that it was not just a fiscal crisis, as conventional wisdom at the start of the crisis thought, but one of a more diverse character, including an underlying banking crisis in a number of member countries.

Shortcomings in EMU's architecture did not allow timely preventive action and also complicated corrective action….

There is a convergence of views among policymakers, academics and other analysts that shortcomings of EMU institutional framework did not prevent the accumulation of sizeable macroeconomic imbalances and structural weaknesses within the euro area in the first decade of EMU. Furthermore, it complicated corrective action to contain and overcome the sovereign debt crisis once it emerged.

However, in addition to institutional shortcomings, there were also weaknesses in the application of economic and fiscal rules. EMU's economic governance framework was certainly incomplete but not nonexistent.

Two other factors seem to have played a significant role in the absence of effective preventive action. *Firstly*, EMU had fallen victim of its own success in generating growth and employment in its first decade and no obvious need, and pressure, was felt for corrective action in cases of unsustainable policies.

Secondly, and related to the first, the reluctance of some large member states to respect the common fiscal rules or face the consequences conveyed a message of laxity with regard to these rules with serious medium-term consequences.

Regarding the first factor, robust GDP growth and employment creation in the euro area - 18 million jobs were created in the euro area in the first nine years of EMU, 4 million more than in the USA - and easily-financed internal and external deficits led to an attitude of benign neglect. Until the emergence of the global crisis, there was no perception of a balance of payments constraint or funding risk for government debt. However, this perception was mistaken, as proved by events, and as was noted in earlier publications, analysing the provisions of the Maastricht Treaty.

A characteristic example of the second factor was the attempt of France and Germany, in 2003, to postpone fulfilment of fiscal rules which required a correction of excessive government deficits. The attempt was partly neutralised following recourse by the Commission to the European Court of Justice and the judgment of the latter which led to the reform of the Stability and Growth Pact in 2005.

The above weaknesses, both institutional and operational, were to a large extent corrected by the adoption of new legislation, mainly the "six-pack" and the "two-pack" in 2011 and 2013 respectively, and the "fiscal compact" by which the balanced budget rule, in structural terms, was introduced. Through the adoption of the new rules, surveillance and coordination of fiscal and economic policies were strengthened and the powers of the Commission to ensure the application of common rules reinforced, for example through the "reverse qualified majority rule" by which a Commission proposal is considered as accepted unless a qualified majority of the EU Council members are opposed to it.

Interaction between the Greek sovereign debt crisis and the euro area crisis

The Greek sovereign debt crisis and its management are crucial to understanding the dynamics of the euro area crisis, as Greece was the first member country in which the sovereign debt crisis emerged, an appropriate EU financial support mechanism did not exist and had to be created from scratch, while events were unfolding and uncertainty rising, threatening euro area's stability and integrity. Evidence shows that there was a close interaction between the management of the Greek sovereign debt crisis and the euro area financial and economic crisis which was rapidly taking on a systemic character.

On the one hand, uncertainties about the implementation of the Greek programme and risks of Greece's exit from the euro area, widely reported by international media, raised concerns about the sustainability and integrity of the euro area itself.

On the other hand, controversies about key elements of the support mechanisms, for example the treatment of private investors on government debt (which led to the Deauville Agreement between France and Germany in October 2010) and doubts often publicly raised about the commitment of Greece's partners to fully defend its euro area membership, were adversely affecting the implementation of its EU/IMF economic programme.

"Mixed results" was how the European Commission characterised the outcome from the implementation of the first Greek economic programme – a statement reflecting a significant reduction in the fiscal deficit but at the cost of much deeper economic recession and much higher government debt than projected in the programme. This outcome necessitated a new loan and increased the uncertainties for Greece and the euro area.

The intergovernmental approach to integration: some merits but higher risks

An important element of the crisis management at EU level but also of the European integration process more broadly, has been the tendency to rely on intergovernmental solutions, outside the legal framework of the EU. The European support mechanisms (EFSF and ESM), the Fiscal Compact (incorporated in the "treaty on stability, coordination and governance in emu") and the Single Resolution Fund of the banking union project are examples of this tendency. According to the view of several stakeholders this is not the best way to proceed, as it privileges the weight of large and influential countries at the expense of a more acceptable "Community approach" which would strengthen the relative weight of European Institutions, such as the European Commission, which is the guardian of the Treaties and assigned the duty to promote the common interest.

However, this intergovernmental approach may be seen as an inevitable second best enabling European integration to advance if a consensus to modify EU treaties cannot be formed. It is also true that the responsibilities of the European Commission were strengthened in some respects as, for example, in the economic and budgetary surveillance and in bank resolution decisions in the banking union project.

In conclusion, the intergovernmental nature of several major initiatives may not be a satisfactory development, but can provide a reasonable provisional compromise between the options of inertia and the movement ahead, provided that the intergovernmental treaties are eventually incorporated in the main body of EU legislation at a later stage

2. A turning point in 2012 as ECB initiatives and a critical mass of reforms stabilised the euro area

A turning point in the euro area sovereign debt crisis was reached in 2012 when it was realised that, in addition to the creation and activation of support mechanisms and strengthened fiscal and macroeconomic rules, decisive action was needed to neutralize the risks of euro area disintegration, break the vicious circle between banks and sovereigns and move towards a banking union.

The commitment “to do whatever it takes to preserve the euro” was decisive…

Indeed, in July 2012, the ECB President underlined in London the commitment that, within its mandate, “*the ECB is ready to do whatever it takes to preserve the euro”*. In August, the ECB announced its readiness to undertake Outright Monetary Transactions (OMT) in secondary markets with regard to sovereign bonds in the euro area, and in September published details of the modalities for undertaking OMTs, aiming to dissipate *“unfounded fears about the reversibility of the euro*”. In previous months, in order to alleviate the funding constraints experienced by banks, the ECB continued to supply funding support using longer-term refinancing operations with exceptional maturities. In particular, the two three-year longer-term refinancing operations that were announced in December 2011 had a significant impact in 2012 as they led to a net liquidity injection of around €500 billion. More recently, in January 2015, the ECB announced a quantitative easing programme (“expanded asset purchase programme”) in order to address the risks of deflation

….but a critical mass of economic governance reforms also helped....

It should be noted that a critical mass of EU economic governance reforms, notably concerning euro area countries, and progress in fiscal and macroeconomic adjustment at national level, were crucial elements in making the ECB’s initiatives credible. In particular, conditional financial support by the ESM within an economic programme supplied the appropriate framework for an eventual activation of the OMT programme. Moreover, the adoption by the European Council of a "plan towards a genuine EMU"16, with concrete steps to establish a banking union, provided a clearer long-term perspective for EMU and it was an essential element in regaining financial market confidence and stabilising expectations.

… as well as a better understanding of the nature of the crisis…

Moreover, there was a better understanding of the nature of the euro area crisis and a shift of focus towards improving the soundness and performance of the banking sector, strengthening its surveillance and breaking the vicious circle between banks and sovereigns. The determination to proceed towards banking union was the most visible sign of the new priorities.

Progress in economic adjustment and reform in the programme countries contributed significantly to the overall effort to strengthen financial stability in the euro area and enhance its growth potential. In particular, the re-negotiation of the Greek economic programme which was put onto a new and more sustainable path was a positive element in this joint effort.

More generally, economic policy in EMU was starting to be rethought, including in connection to EU/IMF economic programmes. An important impulse to the latter was the report and resolution of the European Parliament on the Troika and its operation (see below), in view of the elections for a new parliament in May 2014. This rethinking, while sticking to the need for sound macroeconomic and fiscal policies, includes a better articulated policy mix, of fiscal, financial and structural policies using effectively to this end the instruments put at the disposal of European institutions and national governments by the new economic governance framework. To this should be added initiatives towards more growth friendly fiscal adjustment favouring, for example, investment spending.

…and significant adjustment and reform in member countries

There has been considerable macroeconomic and fiscal adjustment in the euro area since the start of the global financial and economic crisis, in particular in countries implementing adjustment programmes. However, although "flow" imbalances were considerably reduced, "stock" imbalances continued rising as a percentage of GDP, due mainly to weak economic growth.

After two years of recession in 2012 and 2013, economic recovery has been gradual but unequal across countries, although the gap in GDP growth rates between peripheral and core countries is closing18. The employment situation has been very diverse among member states, reflecting their unequal economic performance during the crisis, and the unemployment rate has been very high in countries severely hit by the crisis. Financial markets fragmentation has been receding, but very slowly in some parts of the euro area.

Significant fiscal adjustment but still high the debt ratio

The general government deficit of the euro area as a whole was reduced from a peak of 6.4% of GDP in 2009 to 2.9% of GDP in 2013, a trend reflecting a fall in fiscal deficits in most member countries. However, the government debt ratio continued to rise, due mainly to weak economic activity, and is estimated to have reached 94.5% of GDP in 2014 from a low level of 64.9% of GDP in 2007. While the government debt ratio increased in all euro zone countries during the above period, its rise was particularly steep in those member states severely hit by the sovereign debt crisis. According to current forecasts, the euro area government debt ratio is expected to peak in 2015 at 94.8% of GDP and start falling thereafter.

The government debt ratio is a crucial factor in the effort to strengthen financial stability in the euro area and avoid a reversal and return to situations characterized by uncertainty and a crisis of confidence. The establishment of a falling trend in the government debt ratio in individual member states with high government debt and in the euro area as a whole should be a policy priority, through an optimal combination of fiscal adjustment and other financial operations (e.g. privatizations).

3. EU/IMF economic programmes: analytical and institutional aspects

EU/IMF economic programmes, implemented by a number of euro area member countries since the emergence of the sovereign debt crisis, have been an important part of the response to the crisis by the EU institutions and national governments. It is, therefore, natural that the design, implementation and overall management of the programmes be the subject of examination and assessment by independent analysts and official bodies, such as Committees of the European Parliament who focus on the institutional and political aspects of the programmes.

Analytical aspects

Although two euro area countries, Ireland and Portugal, concluded their respective economic programmes successfully at the end of 2013 and in early 2014, respectively, - and have entered the “post-programme” monitoring (see below) - the discussion about EU/IMF economic programmes was dominated by the management and performance of the Greek economic programme. This is understandable due to the wider implications of the Greek programme and because the implementation of the first Greek programme was marked by a number of weaknesses, as key targets were missed. The first Greek economic programme was re-negotiated in 2012 and a second programme was agreed involving new macroeconomic and fiscal targets and a new loan agreement.

Looking at the results of the implementation of the first EU/IMF economic programme for Greece and taking account of reports and studies by several independent analysts25, international institutions, notably the troika institutions, as well as the reports and resolution on the troika by Committees of the European Parliament, it appears that the main reasons behind key failures of the first Greek programme can be summarised as follows (although other, more technical, factors such as those related to the size of fiscal multipliers may also be relevant):

The lack of “national ownership” of the programme had been, and to a large extent continues to be, a serious drag on its successful implementation, as necessary structural reforms and adjustments cannot be easily accepted by society. It is noteworthy that even the government coalition parties who had agreed the programme used to describe it as a “necessary evil” that had to be implemented because it was requested by the troika.

The second main reason concerns troika institutions: contrary to conventional wisdom, and prior expectations, the troika institutions, notably the IMF and the European Commission, had no experience of economic adjustment in a monetary union, in particular in cases of highly indebted countries (the ECB being a new institution with a specific mandate was not expected to have such an experience). In particular, although the IMF had an experience of over 150 economic adjustment programmes, the adjustment practically always included sizeable devaluations of the currency, often of the order of 30% to 50%, something impossible in a monetary union. The European Commission likewise, though it had some experience in monitoring balance of payments loans, had no experience of adjustment in a monetary union.

On the first issue, the reasons for the lack of national ownership of economic programmes and ways to remedy the situation should be examined. Indispensable elements of any remedial action include transparency about the economic situation and avoidance of untenable promises and unsustainable policies by political parties. How might lack of national ownership affect the implementation of the programme? Usually it works both ways: weak commitment by governments to pursue necessary reforms and adjustments interacts and reinforces “resistance” by citizens to reforms perceived as unnecessary and unfair. On the basis of these findings, troika’s argument that missing targets of the first Greek programme are mainly due to inadequate commitment to reforms seems to have some basis, without fully explaining the huge divergence between targets and outcome.

Regarding the second issue, it was stated, explicitly and implicitly, on several occasions, by IMF officials that there was inadequate knowledge of the dynamics of adjustment in a monetary union. Indeed, there are reasons to conclude that there was inadequate knowledge about the adverse consequences on economic growth and, as a consequence on the debt dynamics, of internal devaluation. The requirement for “expenditure-reducing policies” and “expenditure-switching policies” for a successful external adjustment is wellknown in the literature. A reduction in internal demand, notably through fiscal consolidation contributes to reducing domestic absorption liberating resources for export. Devaluation facilitates expenditure switching by making domestic production more price-competitive in foreign and domestic markets. Devaluation and internal devaluation may have the same objective, to reduce the relative prices of domestic goods and improve competitiveness, but would have very different side effects: devaluation increases domestic output and raises domestic price level and nominal income, and thus reduces the real burden of debt, while internal devaluation reduces domestic output and prices and lead to a rise, and in some cases a sharp rise, in the government debt ratio, as was the case in Greece.

Institutional issues

Concerning institutional aspects, the resolution of the European Parliament states that *“The EU/ECB/MF “Troika” helped four EU countries through the crisis and* *prevented it from getting worse. But the flawed structure and working methods hindered national "ownership" and compromised transparency and accountability"*. The resolution recommends, as a first step, that there should be clear, transparent and binding rules of procedure and for the medium-term recommends a radical overhaul of the Troika, in which the IMF involvement would become optional, the ECB would be present only as an observer and the European Commission role would be taken over by a "European Monetary Fund". The above recommendations seem sensible overall and could improve the management of the programmes with the following adaptations:

The IMF could be associated to the programmes as a consultant, without providing funds and, thus, contributing only through its "authority of knowledge" status. The European Commission should have the overall responsibility for the design, implementation and management of economic programmes, being thus accountable to EU Council, the Eurogroup and, of course, to the European Parliament who may even impose sanctions on Commissioners in case of notable failures. As a consequence, the current diffusion of responsibility between the troika institutions will cease. The ECB could participate in the design and monitoring of the programmes to the extent that such a role is compatible with its mandate and its independence status regarding monetary policy.

As for the creation of a European Monetary Fund, the idea should not be rejected a priori but there are certain shortcomings: it would add to the proliferation of European institutions and would create some confusion with the role of the ECB, notably in connection with the term "monetary". The assumption of the key role by the European Commission has the additional advantage that a European institution also responsible for monitoring and ensuring the respect of European economic and fiscal rules and internal market legislation, will have also the responsibility for the design and implementation of economic programmes and be accountable for any errors and misjudgements.

Priority given to stability was justified but robust growth is also essential

Taking account of the devastating effects on several member countries' economies and the rising risks of euro area disintegration provoked by the sovereign debt crisis, it can be safely argued that the priority given by the EU to financial stability, in the broader sense comprising sustainability of public finance and financial sector stability, was fully justified, despite some initial weaknesses in policy action which were corrected in 2012.

Moreover, as the sovereign debt crisis has been contained but not yet overcome, financial stability must continue to be a top priority of policy action until the new economic governance architecture and institutions have passed the test of time. This requirement looks a bit “intimidating” but it should not be so.

It only means that while new institutions and mechanisms are tested by financial markets and actions of important stakeholders - electorates, parliaments, national and European courts28- the issue of financial stability must be given particular attention in order to avoid disturbances and rising uncertainty which could be detrimental for both financial stability and economic growth.

As a result of policy initiatives and progress in adjustment and reform, financial stability in the euro area was strengthened steadily from the second half of 2012. The successful exit of Ireland and Portugal from their EU/IMF programmes, and of Spain from the EU financial sector restructuring programme, and significant progress towards adjustment and reform in Greece, notably within the framework of the second programme, and more recently in Cyprus, are also parts of a positive picture.

However, important challenges remain. A crucial element in order to durably ensure financial stability is to achieve the stabilization and then the decline in high government debt ratios in several member countries and in the euro area as a whole. This is indispensable in order to avoid the risk of a reversal of the drive towards sustainable public finances, give a strong signal to financial markets about long-term fiscal sustainability and initiate a virtuous circle for the euro area economy. Therefore, care must be taken to ensure the sustainability of public finances even if agreement is reached, as it is currently requested by certain governments, to relax, provisionally or permanently, certain fiscal rules, beyond the degree of flexibility that already exists.

Priority to financial stability does not imply that growth considerations are of secondary importance in EMU. On the contrary, in the medium to long term, robust economic growth is essential for both financial stability and overall welfare and should be a constant policy objective at central and national level. It should be noted in this context that concerns expressed during the first two years of the sovereign debt crisis, notably by credit rating agencies, about risks to financial stability in a number of euro area economies and of the integrity of the euro area itself, were related essentially to their capacity to achieve robust enough economic growth - an essential factor for financial and fiscal sustainability - and less by their commitment to fiscal adjustment. This aspect was obviously not well understood at the time. The real challenge for European institutions and national authorities in the new EMU 2.0 era is to find the right balance between these two objectives so that stability and growth policies are mutually reinforcing.

4. Policies for stability and growth are possible in EMU 2.0

Policies enhancing both stability and growth are possible in EMU and most of them have started being implemented, while others are at an advanced stage of development. Such policies include *economic rebalancing*, guided by the implementation of the EU macroeconomic imbalance procedure, that is expected to have larger positive implications than usually assumed, the *banking union* project, an essential element of financial stability and financial integration, and new initiatives to achieve effective integration in the *European Internal Market* which is the most important asset in the effort to strengthen economic recovery and enhance the growth potential of the European economy. The *single monetary policy,* aims to create uniform monetary conditions within the euro area by pursuing its price stability objective, contributes to financial stability and economic growth but also to the effective unification of the internal market by enhancing integration of financial markets.

To the above should be added policies *directly* supporting economic growth. They include policies to support *private and public investment*, indispensable for strengthening economic activity and enhancing Europe's growth potential, more *growth-enhancing policies* at both national and central level focused on structural reforms in labour and product markets and actions to improve the business environment, including a re-focusing of competition and industrial policies, and a more growth-friendly fiscal consolidation and *external trade and investment policies* based on openness and reciprocity.

Although most of the above policies have been in place for some time now, much more needs to be done at both the national level, where implementation of adjustment and reform has often been weak, and at the EU level, where a refocusing of economic policy is needed to enhance the productive potential of the European economy and promote real convergence. The focus in this section is on some key areas which are essential for both stability and growth in the EU and the euro area and are also related to the new policy framework.

As a consequence, although financial stability, supported by credible institutions and appropriate policies, is a precondition for any successful initiatives to improve economic performance, it matters a lot how financial stability is achieved and maintained. The ECB’s intervention in 2012 was decisive in helping to lower the yields of government bonds - and thus the borrowing cost of sovereigns but also of the whole economy - from the unsustainable levels they had reached at the peak of the crisis. However, this decision needs to be followed by consistent adjustment and reform effort to enhance the performance of the euro area economy.

Economic rebalancing would have far-reaching, positive effects

The objective of the “macroeconomic imbalances procedure” - to prevent and correct excessive imbalances which may jeopardize the proper functioning of EMU - is expected to have positive effects for both financial stability and economic growth. Its relevance to financial stability is obvious, bearing in mind the adverse effects of the accumulated internal and external imbalances in the first decade of EMU. Positive effects on economic growth are also expected from this reform, as the obligation to contain macroeconomic imbalances will lead to policies seeking internal and external balance resulting, if successful, in lower external imbalances within the euro area - in particular in a reduction of the very high current account surpluses in some countries –and reduced current account surpluses *vis-à-vis the rest of the world.* Such a development is expected to contain euro appreciation against the main world currencies, a major concern of exporters in euro area countries.

Moreover, there is a political economy/institutional aspect to the rebalancing strategy: the containment of imbalances within the euro area would reduce the over-dependence of debtor on creditor countries, a situation which, combined with the tendency to rely on intergovernmental solutions in order to cope with crisis-related problems, often implies difficult relations and tensions. Therefore such a development is expected to have positive effects on the cooperation between member countries and the functioning of the economic and monetary union.

The banking union is essential for stability and important for growth

Priority given by the euro area summit in June 2012 to a rapid advance towards banking union, as part of a broader plan to move to a higher degree of integration in EMU, was justified by the need to break the vicious circle between banks and sovereigns, which had led the sovereign debt crisis into a difficult-tocontrol downward spiral. It was also concluded at the summit that "*when an effective single supervisory mechanism is established, involving the ECB, for banks in the euro area the ESM could, following a regular decision, have the possibility to recapitalize banks directly*", a provision aimed, precisely, to work in the direction of severing the link between banks and sovereigns as the cost of bank recapitalisation would not burden individual country's public debt.

In December 2012 the European Council agreed on the key elements of the banking union and on the issue of direct recapitalisation of banks, under certain conditions, by the ESM. This political guidance was followed by the adoption of EU legislation in order to set up the main building blocks of the banking union: a *single supervisory mechanism*, which introduces a unified banking supervision in the euro area and other participating member states under the responsibility of the ECB, a *single resolution mechanism* with a *single resolution fund* which will ensure that if a bank faces serious difficulties, its resolution can be managed efficiently with minimal costs to taxpayers and the real economy. A system of harmonized national deposit guarantee schemes will be in place from 2015 and a *single system* for guaranteeing deposits is expected to come later.

A well-designed and properly implemented banking union, besides being essential for financial stability, will be also important for economic growth, as a) re-integration of European credit markets would enable them to play fully their role in financing the real economy and b) repair of the monetary transmission mechanism will ensure that ECB's low interest rates be effectively passed on to those countries that probably need them most.

The qualifications "well-designed" and "properly implemented" are important, as concerns have been raised about the time-horizon within which the banking union project will attain financial maturity and be fully operational, judged to be too long - although shortened to eight years compared to ten years initially proposed - entailing considerable risks if an emergency occurs, and the legal form the single resolution fund would take, i.e. that of an intergovernmental international agreement, considered to imply legal and operational risks.

Another criticism was that the project lacks in effect a public backstop in the event of a really big crisis and in this sense cannot be a substitute for a genuine fiscal union as some suggest that it might be. Indeed, according to some authors a banking union can respond to most important and costly shocks, arising from financial boom-bust cycles, followed by financial crisis, such as the global financial crisis and the euro area sovereign debt crisis, making thus redundant a fiscal union. However such a role would require that a banking union is equipped with an effective backstop capacity (which could take the form of a common deposit insurance scheme as in the USA).

Regardless of the validity of the argument about the necessity or not of a fiscal union and, as a consequence, of a high degree of political union in EMU, the banking union project presents a number of significant advantages: it benefits from strong and wide political support, its establishment is well-advanced and, centered on ECB supervision, it seems to fulfill the right conditions to play a decisive role in improving the stability and the efficient operation of EMU.

It should be noted, however, that the popularity of the banking union project is based to a large degree on the expectation that it could achieve very substantial improvement in the stability and operation of EMU without much economic cost to the European taxpayer and with no political cost to governments in comparison to a move towards fiscal union which is currently rather unpopular in public opinion in several member states. Several analysts have expressed doubts whether the 55 billion euros which could be mobilized by the single resolution fund by the end of the transitional period for its maturity would suffice to meet all eventualities. It should be noted, however, that besides the 55 billion euros of the fund, there will be also the possibility of recourse to he European Stability Mechanism and to financial markets, in case of need, in order to acquire the necessary funds before recouping them from the banking industry ex post.

An effective integration of the Internal Market would boost growth and employment

A unified internal market is the most valuable asset of EMU, giving businesses and private persons the opportunity to benefit from a large integrated market of over half a billion people. A unified internal market is also a key factor for attracting foreign direct investment.

Financial fragmentation, as a result of the sovereign debt crisis, constituted a reversal of financial integration - and as a consequence a reversal of the drive towards a unified internal market - achieved over the past decades through the free movement of people, goods and capital, the free provision of services and, finally, by the introduction of the euro. It is therefore of the utmost importance to re-establish financial markets integration and achieve an effective integration of the European internal market which was supposed to be completed by 1992 but in many respects is still incomplete. But despite these reversals in the integration process, available evidence indicates that the benefits from integration in specific areas have been significant.

It is important for the EU institutions to mobilize efforts to achieve the policy objectives for which they have full responsibility and capacity to act. According to the European principle of “subsidiarity” each level of authority (national-European) has to act in priority in the areas where it has more authority and competence. And although obstacles to the effective completion of the internal market are most often put by member states, the EU, notably the European Commission, as the guardian of the treaties, and the ECB as far as banks and payment systems are concerned, have the legal authority and operational capacity to achieve the objective of market integration.

There are signs that financial fragmentation, is receding but we are still far from a normalization of credit conditions and a proper functioning of the financial system in several member states. As a consequence, the normalization of such conditions should be a priority for all authorities concerned.

The crisis underlined also the need to develop a *European capital market*, a sort of capital union in addition to banking union, and rely less on the banking system for the financing of the real economy, notably the business sector, as more diversified financial markets reduce the likelihood of borrowing constraints. It is a positive development that enterprises, mainly larger ones, in crisis-hit countries have turned increasingly to capital markets to fund their investment projects and overall activity in view of the difficult access to bank credit.

Supporting public and private investment

There is broad agreement among policy makers and independent analysts that a significant increase in investment is necessary in order to strengthen the pace of recovery and enhance the growth potential of the European economy. There are currently investment shortfalls in virtually all countries and in the euro area in particular, although the situation varies greatly among its member countries: investment, as percent of GDP, declined by about four percentage points in euro area total but by much more, between 8 p.p. and 14 p.p., in the countries most severely hit by the crisis.

The analysis of factors underlying this investment decline in the euro area indicates that the most significant causes have been weak economic activity and prospects for lower growth potential compared with the pre-crisis period, the need for economic restructuring and reduction of excess productive capacity in specific sectors, such as the construction sector - notably in Spain and in Ireland - , and the reduction of indebtedness by the corporate and household sectors.

Additional factors, related to the sovereign debt crisis, which have adversely affected public and private investment, are the decline in public investment in the effort to consolidate public finances, financial market fragmentation which adversely affected capacity to finance investment projects, and the high degree of uncertainty, probably the most significant factor in investment decline since 2009.

The negative influence of most of the above factors has been diminishing in recent quarters, as economic recovery is gradually picking up, progress in economic governance and in establishing a banking union is reversing financial fragmentation and reducing uncertainty, while reduced macroeconomic and fiscal imbalances make less pressing the need for further fiscal consolidation, leaving thus space for a rise in public investment. Also, a change in the growth model in economies hit by the crisis, away from private and public consumption and towards investment and exports, along with a shift towards more productive investment, would increase domestically generated savings and avoid aggravating fiscal and current accounts. Under certain conditions debt-financed investment projects could have large output effects without increasing the debt to- GDP ratio.

However, the investment recovery which started in the second quarter of 2013 has been slow and more direct initiatives are needed to support investment and growth in the euro area and in the EU more generally. In this context there were proposals to modify EU fiscal rules, by excluding government investment expenditure from the calculation of fiscal deficits within the Stability and Growth Pact, in order to encourage public investment.

Regardless of the treatment of public investment within the EU fiscal rules, it is clear that the bulk of the investment needed should come from the private sector, as public investment accounts, on average, for less than one fifth of total investment in the euro area. Action at EU level, using all available institutions and mechanisms can support both public and private investment by improving public infrastructures and creating synergies between public and private initiatives.

The plan of J. C. Juncker, new European Commission President, for investments of at least €315 billion over three years by the combined action of several European institutions and mechanisms.

5. Remarking Conclusions

From the analysis of the emergence and the management of the global and the sovereign debt crises useful lessons can be drawn for the design of public policy, at EU and national level, within the new economic governance framework. A number of suggestions in this direction are included in this paper. Shortcomings in EMU’s institutional framework did not allow timely preventive action before the emergence of the crisis and complicated corrective action when the crisis occurred, while some weaknesses in the application of fiscal rules aggravated institutional shortcomings.

A turning point in the effort to overcome the sovereign debt crisis occurred in 2012, when ECB initiatives, supported by a critical mass of institutional and economic reforms, succeeded in neutralising risks of euro area disintegration. At the same time, the decision to create a banking union was designed to strengthen financial stability, financial markets integration and the European internal market.

It is a central point of this paper that the European strategy to preserve and strengthen financial stability was fully justified. There was ample evidence about this during the first two years of the crisis when uncertainty about financial stability in the euro area paralyzed attempts to revive the economy. However, it is also clear that robust economic growth is essential both for financial stability and overall welfare. Therefore the creation of conditions for economic recovery and sustainable growth must be a constant policy objective at EU and at national level.

Policies enhancing both stability and growth are possible in EMU and some of them have already started being implemented while others are at an advanced stage of development. They include *economic rebalancing*, guided by the implementation of the macroeconomic imbalance procedure, which is expected to have broader, positive implications than usually assumed, the *banking union,* a project essential for stability and important for growth, and new initiatives to achieve an effective integration of the *European internal market*. To the above should be added policies *directly* supporting economic growth. They include policies to support *private and public investment*, indispensable for strengthening economic activity and enhancing Europe’s economic potential, more *growth-enhancing policies* at both national and central level.

What is the scope for national policies in the new economic governance framework? No easy answers exist, as we are here in uncharted territory: the crisis has not yet been overcome and some parts of the new legislation have not yet been fully implemented. With these qualifications in mind it can be argued that there is ample room for national economic policy which, if well-designed and properly implemented, will enhance the growth potential of member countries. The new policy environment is safer, as weaknesses in EMU’s architecture have been largely corrected, but also more challenging: well intentioned but largely unfulfilled declarations about the need for “growthenhancing structural reforms”, “growth-friendly fiscal consolidation” and for policies supporting innovation and research must be given real content in an optimal and sustainable way by mobilizing all available resources and expertise.

Priorities identified at European level can provide guidance for action also at national level. However, legacy problems, such as the excessive government debt burden in some countries, must be resolved.

A final word refers to doubts often expressed about euro area’s prospects: the euro area’s strengthened economic and financial governance, sound economic fundamentals, including a robust export performance, and a largely unexploited potential of the internal market provide reasons to conclude that euro area’s prospects can be bright. But their realization requires some key elements: readiness to further improve economic governance, commitment to sound macroeconomic, monetary and financial policies, increased investment in physical and human capital, a positive attitude to innovation and reform and openness towards the rest of the world while protecting European interests. It requires also a commitment to and active participation in the European project with ideas, initiatives, proposals and concrete work towards achieving common objectives.

References

Contagion effects during financial crisis: Evidence from the Greek sovereign bonds market: I.C. Pragidis, G.P. Aielli, D. Chionis, P. Schizas

Corruption and Tax Evasion: Reflections on Greek Tragedy: Anastasia Litina, Theodore Palivos

Efficiency and risk convergence of Eurozone financial markets: Joerg Wild

EMU 2.0 Drawing lessons from the crisis – A new framework for stability and growth: Theodoros S. Papaspyrou

European financial market dependence: An industry analysis: Sφhnke M. Bartram , Yaw-Huei Wang

Financial crisis, liquidity and dynamic linkages between large and small stocks: Evidence from the Athens Stock Exchange: Athanasios Koulakiotis, Vassilios Babalos, Nicholas Papasyriopoulos

Global financial crisis and emerging stock market contagion:A volatility impulse response function approach: Xiaoye Jin, Ximeng An

Global transmission channels for international bank lending in the 2007-09 financial crisis: Jonathon Adams-Kane, Yueqing Jia, Jamus Jerome Lim

Governance and firm value: The effect of a recession: Mustafa A. Dah

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Stock market recovery from the 2008 financial crisis:The differences across Europe Ivan Ivanov, Stanimir Kabaivanov, Boryana Bogdanova

The 2008 financial crisis: Stock market contagion and its determinants: Kimberly F. Luchtenberg, Quang Viet Vu

The contagion channels of July–August 2011 stock market crash: ADAG-copula based approach: SelmaJayech

The impact of macroeconomic and financial stresson the U.S. financial sector: William J. Hipplera, M. Kabir Hassan

Transmission of sovereign risk in the Euro crisis Filippo Brutti, Philip Sauré

Underinvestment and unemployment: the double hazard in the Euro Area: Nicos Christodoulakis, Christos Axioglou

Volatility spillovers in EMU sovereign bond markets: Fernando Fernández-Rodríguez, Marta Gómez-Puig, Simón Sosvilla-Rivero