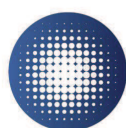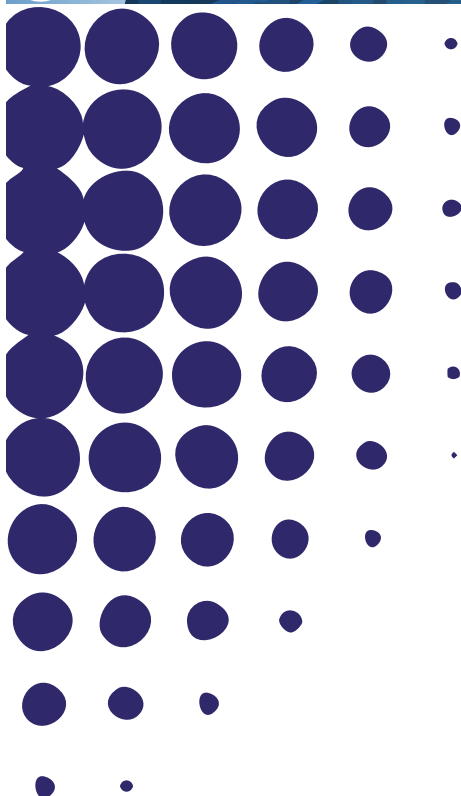# D2.2 SEARCH DERIVERABLE

Complete report on patterns of economic interaction between the

European Union and its neighboring countries

September 2013

SEARCH

SHARING KNOWLEDGE ASSETS:
INTERREGIONALLY COHESIVE
NEIGHBORHOODS

EUROPEAN COMMISSION
European Research Area

SEVENTH FRAMEWORK
PROGRAMME

Funded under Socio-economic Sciences & Humanities

DELIVERABLE 2.2

Complete report on patterns of economic interaction between the European Union and its neighboring countries

September 2013

COORDINATORS

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Table of Contents

1.   INTRODUCTION

The recent (i.e. years 2004, 2007, and 2013) EU eastwards enlargements brought the borders of the EU to a set of countries in the East with historically less intensive economic relations. These countries have been part of the (former) Soviet Union and are characterized by lower development levels and significant institutional and structural differences. At the same time, in the Southern and the Eastern rim of the Mediterranean Sea, the EU is faced with countries that are linked to individual EU countries through their colonial past. Both bordering areas, in the EU East and the EU South, have been gaining significance as they include emerging economies, energy suppliers, or, simply, a large neighboring market, which is crucial for the EU economy. Thus, the EU launched, in 2004, the European Neighborhood Policy (ENP), a unified policy framework towards neighboring countries (the ENP countries). The ENP framework applies to Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine (the ENP East) as well as to Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Occupied Palestinian Territory (hereinafter: Palestine), Syria and Tunisia (the ENP South). The ENP offers conditional preferential economic and political relations in exchange of the recipient countries' adherence to the ENP principles aiming at strengthening the prosperity, stability and security of the EU, creating a "ring of friends" around the EU political borders.

1.1.   General Framework

SEARCH ("Sharing KnowledgE Assets: InteRregionally Cohesive NeigHborhoods") Project, being implemented within the 7th European Community Framework Programme (FP7-SSH-2010.2.2-1(266834) European Commission), analyses the impact of the ENP on the integration of neighboring countries and the EU in the areas of trade and capital flows, mobility and human capital, technological activities and innovation diffusion, and the institutional environment. In particular, the 2nd Work Package (WP2) of SEARCH Project, titled "Trade Flows and Localization Choices" has the general objective to study, both theoretically and empirically, the patterns of economic interaction between the EU and its neighboring countries, to project future trends and identify the effects of higher levels of economic integration to the growth, competitiveness and cohesion prospects of the two areas.

WP2 is carried out in parallel to WP3 ("People Mobility and Human Capital"), WP4 ("Technological Activities and Innovation Diffusion in the EU and Interaction with Neighboring Countries"), and WP5 ("Institutional Environment"). Hence, a strong cooperation methodology has been established among the WP leaders, ensuring the progressive coordination and alignment of the research activities. Building on the relevant findings, this allows for cross-fertilization and strengthening of the existing interrelation among the WPs of SEARCH Project. Given that SEARCH Project places strong emphasis on the policy dimension, research results of WP2 – as well as of WP3, WP4, and WP5 – are closely monitored and assessed as they emerge from WP6 ("Policy Issues and Research Implications: Toward an integrated European Research Neighborhood Policy Posture") in order for their relevance for the formulation of policy recommendations to be ensured.

1.2.   Partners involved & Period of Time

Towards the accomplishment of the objectives of WP2, 9 SEARCH partners are activated. Each partner has been allocated a specific number of person-hours according to the degree of its involvement. Namely, the partners involved in WP2 of SEARCH Project are (the person-hours are in the parentheses): a) UTH – University of Thessaly (14.5); b) URU – University of Utrecht (6.5); c) CRENoS – University of Cagliari (5.5); d) London School of Economics (5.5); e) WU – Vienna University of Economics (0.5); f) University of Pecs (2.0); g) Leibniz University of Hanover (3.5); h) UCAM-FSJES – Cadi Ayyad University (1.0); and i) HUJI – Hebrew University of Jerusalem (3.5). UTH is the coordinator of WP2, having the responsibility to secure that WP2 is executed in way that guarantees the timely provision and the high quality of the Deliverables.

The starting month of WP2 was the 7th month of SEARCH Project i.e. February 2012. The ending month of WP2 is the 28th month of SEARCH Project i.e. November 2013. Over this time span, 4 Deliverables have to be submitted to the European Commission: a) Deliverable 2.1.: Interim working paper on patterns of economic interaction between the EU and its neighboring countries; b) Deliverable 2.2.: Complete report on patterns of economic interaction between the EU and its neighbouring countries; c) Deliverable 2.3.: A report presenting the main findings of WP2 and discussing the policy options that will increase the benefits of integration for both the EU and the neighboring countries; and d) Deliverable 2.4.: A report including empirical studies on the development of the relations among EU and Neighbouring countries based on trade and capital flows. Deliverable 2.1. has been submitted to the European Commission in the 18th month of SEARCH Project i.e. in January 2013. Currently, in the 26th month of SEARCH Project i.e. in September 2013, Deliverable 2.2. is submitted. Later on, in the 28th month of SEARCH Project i.e. in November 2013, Deliverables 2.3. and 2.4. are going to be submitted. The contents of Deliverable 2.4. are going to included in a collective volume or in a special issue, which is going to be edited in the ending month of SEARCH Project.

1.3.   Executive Summary

The specific objectives of WP2 are: a) the analysis of the trade patterns between the EU and its neighboring countries and their possible effects on growth, structural change and cohesion in both areas; b) the analysis of the locational choices of EU mobile investment, the direction and drivers of capital mobility and its effects on the EU new member states and its neighboring countries; c) the assessment of the efforts made by domestic and foreign firms to invest in technological and organizational capacities with a special focus on the impact of localized institutional environments; d) the analysis of the spatial intra-country effects of higher levels of trade and investment interaction in both the EU and its neighboring countries; and e) the discussion of the policy options at the EU level that take into consideration the effects of integration and attempt to increase and spread its benefits on both sides of the external EU borders.

The findings of WP2 provide clear-cut answers to a series of research questions: Which is the evolution of trade patterns between EU countries and their neighboring countries? Which is the impact of trade activity between EU countries and their neighboring countries on growth, structural change and cohesion? Which is the evolution of capital mobility between EU countries and their neighboring countries? Which is the impact of capital mobility between EU countries and their

neighboring countries on growth, structural change and cohesion? Which are the policy implications of the evolution of trade activity and capital mobility between EU countries and their neighboring countries?

Addressing the research objectives of WP2, secondary, national-level, data, derived from UN COMTRADE, CEPII BACI, EFIGE, FDi-MARKETS and BEEPS databases, are utilized. Dealing with the lack of data at the regional-level, SEARCH database has been compiled. SEARCH database contains stylized facts, for the regions of the ENP countries, derived from the National Statistical Agencies of the ENP countries. Besides secondary data, primary data are, also, utilized. Primary data became available after the conduct of field research under the aegis of SEARCH Project. The utilization of the available, primary and secondary, data allows for the thorough study of trade flows and capital mobility by means of a wide array of research methodologies. Descriptive statistical analysis is a research methodology that pervades all research tasks included in WP2 allowing for a complete picture about the size, the direction and the composition of trade and capital flows to be obtained. Then, depending on the particular research task, more sophisticated research methodologies are employed; from commonly-used methods, such as the estimation of established indicators and the construction of gravity and growth models, to less-often-used methods, such as the construction of panel VAR models, the construction of Random-Coeficient Mixed Logit models, the construction of Multinomial Logit Regression models and the construction of Binary Logit Regression models. The exploitation of the aforementioned methodologies allows for coherent and robust results to be found, with important implications for theory and policy-making.

The ENP has accelerated and intensified economic flows between the EU and the ENP countries (as well as between the corresponding businesses). However, the interaction between the EU and the ENP countries has not reached its maximum value. Definetely, there is a room for the expansion of both trade and capital flows. This suggests that further approximation between the EU and the ENP countries is necessary. However, the conditionalities, related to progress required on political and institutional issues on behalf of the ENP countries, involved in the DCFTAs, the main policy thrust of the ENP, are proved not to be extremely helpful towards this direction. Thus, the EU may discuss the possibility for the reinvigoration of the ENP as the "carrot and stick" tactic of the DCFTAs has not produced the anticipated results. Such a discussion should take into a consideration a couple of extremely important remarks. The first remark is that the pattern of integration between the EU and the ENP countries is uneven, unbalanced and asymmetric. This, inter-industry, type of integration is not in a position to narrow the welfare gap between the EU and the ENP countries. The second remark is that the interaction between the EU and ENP countries generates spatial side-effects (imbalances), favoring, mostly, the capital and the most dynamic regions in the ENP countries. Should they take these remarks into consideration, the ENP may pave the ground for deeper and more sustainable integration between the EU and its neighbors.

1.4. Tasks

Towards the successful achievement of the objectives of WP2, a number of research Tasks have to be accomplished. The SEARCH partners involved are working to this end. These Tasks are: a) Task 2.1.: Analysis of trade patterns over time in EU and neighboring countries; b) Task 2.2.: Capital mobility among EU and neighboring countries; c) Task 2.3.: Spatial implications of integration and expansion of capital flows in and out of the EU borders; and d) Task 2.4.: Policy implications.

Task 2.1. provides a theoretical discussion and a detailed empirical analysis of trade patterns over time, by sector, by origin and destination for the EU and the neighboring countries. The analysis includes intra-industry and inter-industry patterns of trade, patterns of specialization and change as well as export portfolios performance and structure, and assesses their effect to competitiveness and growth performance in both economic areas. Exploiting a number of research methodologies, a number of assignments examine: a) the degree of relatedness between export products; b) the evolution of the export mix of EU and neighboring countries over time and the extent to which new products are related to existing products at the national level; c) the degree of relatedness between imports and exports at the national level and the possible benefits that national export sectors can derive from learning opportunities in related import sectors; d) how both integration and the role of trade in the local economies relies on the type of product which is traded; e) the relation between the patterns of integration and the patterns of production and the impact of integration on specialization and growth performance; and f) EU trade policies towards neighboring countries, including restrictions arising from sectoral policies and environmental or quality requirements and standards.

Task 2.2. undertakes a theoretical discussion and an empirical analysis of the locational choices of EU FDI in both the EU new member-states and in the neighboring countries and, moreover, provides an assessment of the role of firms' localization decisions on the economic social divide between the enlarged EU and its neighbors. A number of complementary research strategies are deployed: a) a theoretical analysis assessing the role of firms' localization (offshoring) in the dynamic evolution of prosperity gaps between more and less industrialized countries and in avoiding the emergence of new dividing lines between enlarged EU and its neighbors; the ultimate purpose is to verify the hypothesis that offshoring, by reducing the technological gaps across locations, might have an important role in closing growth differentials between countries even though the existence of some obstacles may, in some cases, prevent between-countries inequality to be reduced; b) an empirical study of the offshoring decisions of EU firms in order to single out the national and, possibly, the regional level location determinants of multinational companies' investments in the neighboring countries; furthermore, the study explores the differences between the old and the new EU members as investors in the neighboring countries; c) a selection of 4 firm-level case studies selected from the top European investors (i.e. 2 from the old and 2 from the new EU members) operating in the neighboring countries in order to gain some qualitative insights into the determinants of their location decisions in the area with special reference to the role of intangible assets; the analysis is conducted on the basis of extensive interviews and information collection at the level of the headquarters as well as at the individual subsidiaries in the neighboring countries; and d) the utilization of the findings of existing company survey in order to assess, and explain by institutional factors, recent upgrading activities of both EU multinational and domestic firms located in neighboring countries. Together with the aforementioned research strategies, a specific survey is carried out in 3 regions of Ukraine and Morocco, in 300 firms per country, in order to obtain comparative and task-specific micro data of different neighboring countries and regions within the

countries. The survey companies were contacted by phone beforehand, the questionnaire was sent out by post/fax, filled out self-administered and posted/faxed back to survey team. A telephone follow-up was used to ensure a higher quality of the answers.

Task 2.3. discusses theoretically and investigates empirically the spatial implications of the new wave of integration and expansion of trade and capital flows on both sides of the external EU borders. In particular, a number of assignments include: a) the analysis of the regional structure of EU neighbouring countries and the evolution and type of inequalities, as well as of the major drivers of regional performance during the last two decades; b) a recording of the regional policy agenda in the EU neighbouring countries, including goals, policies and available funds; c) a theoretical and empirical analysis of the spatial impact of trade expansion and factor flows expansion on the performance of economies on both sides of the external EU borders; the critical research question is whether trade and FDI flows lead to increasing polarisation and within-country regional disparities, thus creating adverse economic effects on the less advanced regions of the EU and the neighboring countries; and d) the combination of national and, possibly, regional-level data to estimate the impact of the increasing internationalization of the neighboring countries on their spatial economic structures; the underlying hypothesis is that, whereas internationalisation has beneficial effects at the national level, it leads to increased inequalities at the sub-national level and a skewed spatial distribution of economic activity and potentials.

Task 2.4. is concerned with the policy agenda of the EU towards the neighboring countries as well as the domestic policy agenda of the neighboring countries. The main policy question is related to the type of EU initiatives or interventions that will be necessary for the process of integration, between the EU and its neighboring countries, to promote economic cohesion and break the vicious cycle that prevents the benefits of integration from spreading towards the less advanced areas on both sides of the EU borders. The policy analysis is going to recommend a number of policy targets to strengthen this process and, possibly, spread its benefits, assessing the consequences of the EU's approach of differentiated integration, especially in relation to its distributional effects across neighboring countries. A parallel question, of course, is related to the policy options available to neighboring countries in order to reduce the possible adverse effects of integration, increase its benefits and spread them in a way that improves spatial cohesion.

Related with the Tasks presented above, a series of Working Papers have been (are going to be) prepared. Annex 1 and Annex 2 of the current Deliverable present, in detail, the relationship among Working Papers and Tasks, within the framework of SEARCH Project.

2. SCIENTIFIC ISSUES

Deliverable 2.2. is a complete report on patterns of economic interaction between the EU and its neighboring countries, submitted for review to the European Commission in line with the structure of Annex I to the Grant Agreement (i.e. the reference document for the work and the effort to be executed by SEARCH Consortium in carrying out SEARCH Project). Deliverable 2.2. contains 17 Working Papers, which synthesize the work done on patterns of economic interaction between the EU and its neighboring countries. Together, these Working Papers inform both the empirical direction and the theoretical underpinnings of WP2 of SEARCH Project. Each Working Paper has a Policy Notes addendum i.e. a 2-3 pages text consisting of 3 parts: a) objectives of research in reference to policy; b) scientific/research methods; and c) policy value-added. Each Policy

Notes text has contributed to the preparation of the Policy Brief texts, which refer to the Tasks of Deliverable 2.2. The Policy Brief texts incorporate the policy implications of the research findings, easing, thus, the (effective) communication with the policy-makers.

2.1.   Analysis of Trade Patterns over Time in EU and neighboring countries

There are 10 Working Papers analysing trade patterns, over time, in EU and its neighboring countries, according to Task 2.1. of SEARCH Project. These Working Papers are: a) WP2/01: EU trade policies towards neighboring countries (author: Panagiotis Liargovas); b) WP2/02: Is the EU the best trade partner for its neighbors? (author: Anna Maria Pinna); c) WP2/03: c) WP2/03: The geography of trade relations between the EU and the ENP countries: Empirical analysis and implications for theory and policy-making (authors: Panagiotis Artelaris, Dimitris Kallioras, George Petrakos and Maria Tsiapa); d) WP2/04: Relatedness and diversification in EU and ENP countries (authors: Ron Boschma and Gianluca Capone); e) WP2/06: Trade activity between the EU and the ENP countries: A "reproduction" of the "core-periphery" pattern? (author: Dimitris Kallioras); f) WP2/07: The geography of trade relations between the EU and the ENP countries: Emerging patterns and policy recommendations (authors: George Petrakos, Dimitris Kallioras and Panagiotis Artelaris); g) WP2/08: The determinants of trade activity among the EU and the ENP countries (authors: Dimitris Kallioras and George Petrakos); h) WP2/09: Mind your step: The heterogeneous effect of relatedness on the diversification process in EU and ENP countries (authors: Ron Boschma and Gianluca Capone); i) WP2/10: The European firms' export activity to the neighboring countries (authors: Anna Maria Pinna, Fabiano Schivardi and Vania Manuela Licio); and j) WP2/11: Integrating the neighbors: A dynamic panel analysis of EU-ENP trade relations (authors: Ageliki Anagnostou, Dimitris Kallioras and George Petrakos).

The general objective of Task 2.1. is to conduct an in-depth study of the ENP trade flows to and from the EU, and world-wide, in order to provide a thorough insight into the evolution, over time, of their direction, size and composition as well as into the impact of trade activity on the growth performance of the ENP. To this end, a series of research methodologies are employed and significant research findings, with important implications for policy-making, are obtained. Each Working Paper sheds light on specific aspects of the issue so as for all Working Papers together to cover, to a great extent, the full spectrum. The analysis covers the period 1995-2011 so as to gauge the latest shifts operated in trade structures as a result of the recent economic and political reforms (evolutions) implemented (took place) in the EU economy (i.e. the euro currency, the eastwards enlargement, and the on-going financial and economic crisis) and the ENP countries (i.e. the "color" revolutions, and the Arab "spring"), besides the ENP in itself. Data derived from UN COMTRADE, CEPII BACI and EFIGE databases are utilized. COMTRADE and BACI databases contain aggregate and disaggregated (up to 6-digit level) trade data at the national level (in fact, BACI has been developed on the basis of COMTRADE database), whereas EFIGE database contains aggregate and disaggregated (up to 2-digit level) trade data at the firm level.

The complex EU trade policies towards the ENP countries, including restrictions arising from EU sectoral policies (like the Common Agricultural Policy and environmental or quality requirements and standards) is criticaly reviewed and discussed in order to provide the outline for the study of the EU-ENP trade relations. The ENP offers EU neighbors a privileged relationship which promotes common EU values such as democracy and human rights, rule of law, good governance, market economy principles and sustainable development. The ENP extends existing relationships to offer political association and deeper economic integration, increased mobility and more people-to-people contacts. The EU designed the ENP as a form on

conditionality, a policy tool utilized by the EU in both its foreign and trade policy. In particular, the EU trade policies towards the ENP countries are covered under the general framework of the EU Regional Trade Agreements as well as the EU Free Trade Agreements. The EU has applied a varying degree of trade integration and trade strategies to its neighbors, ranging from shallow to deep integration and from bilateral to multilateral strategy.

Having obtained the general outline, a rough picture regarding the EU-ENP trade relations is offered through the utilization of aggregate trade data, at the national level, that refer to EU-ENP trade activity. Following a macro-scopic perspective, the aim is to verify whether or not (or to what extent) the trade component of the ENP, and, in particular, the DCFTAs, the main policy thrust of the ENP, contributes to the "reproduction" of the well-established "core-periphery" EU spatial pattern of development to the EU-ENP economic space. To establish an argument, relations of dominance, between the EU and the ENP countries, are detected (uncovered) through the introduction and the estimation of an Index of Domination. The Index of Domination is estimated separately for exports and imports flows, taking into account the exports (imports) flows of a country under consideration to (from) a partner country and the world as well as the imports (exports) flows of the partner country from (to) the country under consideration and the world, respectively. Depending on the conditions exist, it is possible for a country under consideration to dominate over a partner country, to be dominated by a partner country or to retain a neutral relation with a partner country (i.e. neither to dominate over nor to be dominated by a partner country), in an international trade relation. There is a twofold underlying rationale for the Index of Domination. In particular, when the trade relation (association) with a partner country is not strong enough (i.e. the exports (imports) share to (from) a partner country is lower than a specified threshold), then: a) it is "easier" for a country under consideration to change trade partner, and b) there is a "lighter" impact on the country under consideration when the partner country decides to change trade partner or when the partner country is not able to retain the same level of trade activity (for example, during a recession). This rationale continues to hold, even when there is a special type of trade relations (such as the DCFTAs that characterize the trade component of the ENP).

Then, the EU-ENP trade relations are studied in detail through the utilization of dissaggregated trade data, at the national level. Adopting the notion of geography as a common denominator of the size, the direction and the composition of trade flows, clear-cut, empirically-based, responses to a series of critical research questions are provided. Which is the impact of the gradual dismantling of economic borders between the EU and the ENP countries on the level of EU-ENP trade activity? Are there any geographical limits or barriers to the expansion of the EU market area? How trade affects the production structure in the EU and the ENP countries? Do EU-ENP trade patterns lead to a sustainable relationship that will be the ground justifying further integration in the future? Are there any other competing poles of attraction for the ENP countries? To this end, taking into consideration that trade indicators are, often, the most available input for evidence-based policy-making, providing information in a rather straightforward and reliable manner (probably because trade data themselves are widely available, relatively reliable and highly disaggregated), a series of trade indicators are estimated. In particular, extremely "popular", trade indicators such as the Index of Trade Intensity (which assesses the importance of a trade partner in terms of the overall trade profile of a corresponding economy), the Index of Revealed Comparative Advantage (which calculates the relative (dis)advantage of a country under consideration, in a specific sector, against a partner country) and the Index of Intra-Industry Trade (which matches the value of the exports of a specific sector to the value of the imports of the same specific sector, for a country under consideration) are estimated. Even though each of the aforementioned indicators

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may subject to many considerations, the wide variety of indicators used offers a rather comprehensive picture of the EU-ENP trade relations.

In order for the picture about the EU-ENP trade relations to be completed, the determinants of exports flows from the ENP countries to the EU countries are detected. Moreover, the impact that irregularities in the geographical direction of the corresponding exports flows exert on the economic performance of the ENP countries is assessed. The gravity model assesses the impact of a series of explanatory variables (such as the level of GDP, the level of population, the geographical distance, the income differences, the existence of common land borders, the colonial relations in the past) on the value of the ENP exports flows to the EU, using the Panel Least Squares estimation technique. Standard gravity models usually use cross-data in order to estimate trade patterns, in a given year. Panel data, however, might provide additional insights, capturing relationships over time and avoiding the risk of choosing an unrepresentative year. Moreover, theoretical literature on gravity models suggests that the Fixed Effects model is a better choice (comparing to Random Effects) choice when one is interested in estimating trade flows between a predetermined selection of countries. However, the Random Effects model is selected in order to estimate directly the impact of estimation of time-invariant variables (such as distance) and dummy variables on the exports from the ENP countries to the EU countries. On the basis, of the results derived from the gravity model, a Coefficient of Irregularity in the Geographical Direction of Exports Flows (CIGDEF) is estimated in order to measure the degree to which the direction of exports flows from the ENP to the EU countries is diverging or is different from that predicted by the gravity model equation. Given that the ENP countries operate under conditions of "neighborhood Europeanization", it is important to know whether (and to what extent) the ENP exports flows to the EU are largely driven by market forces or by a set of less detectable, but existing, political type of considerations. Irregularities in the geographical direction of exports flows indicate that there is a bias in the geographical pattern of ENP exports to the EU. Plotting the figures of the CIGDEF against the figures of the ENP countries' per capita GDP, the possible implications of geographical irregularity for the economic performance of the ENP countries are detected.

Having a complete picture about the EU-ENP trade relations, allows for more specific analyses to be conducted. Indeed, topics such as the degree of relatedness between export products, based on co-occurrence analysis, the extent to which new export products are related to existing export products, the degree of relatedness between imports and exports, and the possible benefits that countries exports sectors can derive from related import sectors and the productive structure of trade partners are investigated. In particular, it is investigated whether the path-dependent process of product diversification is driven only by each country past productive behavior (or it is, also, driven by its relationships with other countries, given that countries are embedded in several networks through different channels and are not isolated monads). Moreover, it is investigated whether the constraints of path-dependency are (not) equally binding for all countries (since capabilities may refer to very different domains, and, moreover, while some capabilities are important only for specific (groups of) products, there are, also, general-purpose capabilities that are relevant for all products, and are, also, country-specific). The concept of relatedness is employed as basic methodological element, for such kind of analyses. In particular, in order to measure relatedness, the Proximity Indicator is used. The latter is an *ex post* measure based on co-occurrence analysis and on the assumption that if some products occur repeatedly together in the exports of countries, this is not by chance, but because they share a similar set of capabilities. *Ex post* measures of relatedness do not suffer from the problems of *ex ante* measures (e.g. the related variety). Moreover, with respect to other *ex post* measures, such as the Cluster-based Indicator, the

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Proximity Indicator exploits all available information. Of course, in the particular cases of the EU and the ENP countries, there are some restrictions since data are not available over long time periods and, also, are available only at the national level.

Unlike the vast majority of empirical trade literature, an analysis of the EU-ENP trade relations is, also, conducted, following a micro-scopic perspective. In particular, firm-level trade data are employed. Firms' point of view is very useful to identify and to value in which way the increased world-wide integration of real and financial market has affected the overall economy. In fact, firms perform international operations and are the core of competitiveness. Hence, in order to know how nations can generate growth and increase their exports in order to get out from the crisis and to stay in a competitive way in the international markets, the firms' perspective may help to find the best policies. The correct answer that can address countries to a growth path can be found at the microeconomic level, studying firms and their characteristics. This makes it clear why to study firms is so important in understanding what happens at the macroeconomic level. Thus, EU firms' export decisions are investigated looking at their main destinations and at the intensive and extensive margin trying to address questions on the relative importance of EU with respect to alternative trade partners. The intensive margin refers to changes in diversification among a set of goods that are commonly traded over the period reflecting the inequality between the allocations of active export lines (i.e. it relates to higher volumes of existing products and destinations). The extensive margin, instead, takes account of the effect of newly traded (or disappearing) goods on diversification (simply, it refers on new products and destinations). Furthermore, the EU firms that decide to export in the ENP countries are compared to the EU firms which do not have the ENP countries as principal partner, in order to better understand their characteristics (such as level of employment and labor productivity).

Finally, the impact of the EU-ENP trade relations on the economic growth of the latter is assessed. Has the EU-ENP trade activity stimulated the economic growth of the ENP countries, and (if yes) to what extent? Panel Cointegration techniques to test for causality between trade and economic growth and estimate the long-run equilibrium between real GDP and trade indicators are employed. In particular, according to the procedures mentioned in the empirical literature for causality, the ENP trade-growth nexus is examined in a series of stages. The first stage is to test for the order of integration in the GDP and trade openness proxies. The second one is to employ Panel Cointegration Tests to examine the long-run relationships among the variables. The third one is to apply Dynamic Panel Causality Tests to evaluate the short-run cointegration and the direction of causality among variables. The fourth stage is to estimate a Panel VAR (PVAR) model for the ENP area in order to assess the qualitative and quantitative impact of trade liberalization on growth.

Over the last 15 years, the ENP countries started to implement trade liberalization policies. Especially under the ENP framework, the ENP countries are deepening their trade relations with the EU, concluding DCFTAs in order to open-up trade in agricultural products and to make agreements on accreditation and acceptance of industrial products. Of course, on the other hand, the main reason for the EU to conduct DCFTAs, following the road of bilateralism, with the ENP countries is its objective to deepen the substance of trade agreements, enhancing more comprehensive trade relations with its neighbors, and, thus, bringing its neighbors gradually closer to the Single Market. Indeed, the EU-ENP trade activity has been expanded significantly, in absolute terms. This is a clear sign of the increased interaction – if not integration – of the ENP countries with the EU. Yet, despite this increasingly important fact, the research findings of the study of the EU-ENP trade relations generate some, equally important, concerns about the progress of the DCFTAs and the success of the overall ENP undertaking. The political upheaval in the ENP South and the slow reforms in the ENP East "legitimize" such concerns.

It is, almost unanimously, accepted that the European perspective acts as a very strong stimulus for, and facilitator of, economic, political and institutional development by providing not only the incentives and but also the (financial) resources to promote economic restructuring and institutional capacity-building. It is, thus, no surprise that especially for countries that are in dire need for economic restructuring, sociopolitical transformation and development, the process of European integration, in all of its facets (i.e. economic integration, political approximation and policy harmonization), has largely gone unquestioned. This is, also, the case for the ENP countries. However, together with the aforementioned benefits, which are, indeed, too strong to be overlooked, the process of European (economic) integration is giving rise to additional processes whose nature and overall impacts remain more ambiguous.

Under a macro-scopic perspective, the examination of the EU-ENP trade activity reveals that for the vast majority of the EU-ENP country pairs either there is a neutral relation or the EU countries dominate over the ENP countries. Such finding provides strong support to the argument that the DCFTAs contribute to the "reproduction" of the well-established "core-periphery" EU spatial pattern of development in the EU-ENP economic space. Clearly, the EU-ENP trading area reminds of a "hub-and-spoke" system that consolidates a spatial pattern of unequal (trade) relations between the EU and its neighbors. This makes evident that the neoclassical-type position that the market forces released in the process of economic integration (or even under the tantamount conditions of "neighborhood" Europeanization) are, overall, beneficial for the least developed economies, leading, thus, to greater cohesion, is difficult to verify.

Examing the geography (i.e. size, direction, composition) of the EU-ENP trade relations, the diminishing importance of the EU in the ENP trade shares (even though the EU remains the main trade partner of the ENP countries), the low importance of the ENP countries in the EU trade shares (the vast majority of the EU trade is intra-EU) as well as the low intra-ENP trade shares (an indication that the ENP area is still fragmented with weak demand-supply chain links) can be observed. These trends may attribute to that the fact that the EU-ENP trade relations have been evolved in a rather uneven, unbalanced and asymmetric way. This is so as the ENP countries are locked-in an inter-industry type of trade integration with their more advanced EU counterparts. This type of trade relation, an outcome of the inability of the ENP countries to compete in markets for capital-intensive and/or knowledge-intensive activities, even though it provides an alternative (and perhaps the only feasible) route for the exploitation of the locally available skills, is not in a position to guarantee (generate) prospects for long-term income convergence. Especially for the ENP countries that do not exhibit comparative advantage in the sector of fuel primary commodities, this type of trade relations provides strong implications (given the recent experience of the Southern EU member-states) that trade deficits may be, quickly, "converted" into fiscal deficits. Hence, considering the fact that the ENP area is sensitive in economic (i.e. low welfare level) and in demographic (i.e. high presence of rural population) terms, the current perspective of the ENP may push the (non-fuel producing) ENP countries to gravitate towards different trade poles (e.g. the BRICs) that offer less uneven, less unbalanced and less asymmetric trade relations.

Overall, the findings of the gravity model for the ENP exports to the EU indicate that the gravitational logic applies. High levels of GDP and population, in the ENP and the EU countries, low distance, low income differences, common land borders and colonial relations in the past are among the factors favoring the increase of exports from the ENP to the EU countries. Otherwise, the EU-ENP trade activity is hindered. In particular, the estimator of the GDP of the ENP countries, though positive, indicates the inability of the ENP countries to diversify and expand their export bases, implementing export-led growth strategies. Definitely, the inability of the ENP countries to compete (successfully) with their more advanced EU counterparts in the markets for capital-intensive and knowledge-intensive economic activities cannot produce long-term

income convergence. The positive estimator of the population of the ENP countries indicates high potential to export. This finding is a signal for the EU to create, through its external trade policy, conditions favoring the ENP exports to the EU market. The reluctance on behalf of the EU to remove its tariff barriers, especially the ones imposed on agricultural products, does favor trade creation conditions, raising major hurdles for the ENP countries to export, to the EU market, the products on which they, mainly, specialize. Moreover, the negative sign of the estimator of distance, between the EU and the ENP countries, indicates that the ENP exports to the EU countries are not spatially dispersed all over the EU market. In contrast, they present strong trends of spatial concentration since adjacency exerts a strong influence in the formation of trade areas, whereas distance has a negative effect on trade activity. Of course, since the EU-ENP trade area is not without (natural or/and artificial) barriers to interaction, there are cases exhibiting a geographical pattern which is not "normal", in the sense that the direction of ENP exports is not driven (explained) solely by the parameters captured in the corresponding gravity model. Geographical irregularity (bias) in the pattern of ENP exports exerts a negative, though not strong, impact on the economic performance of the ENP countries. At this point, it has to be stressed out that for many ENP countries (mostly for many ENP East countries) the launch of the ENP led to the normalization of the patterns of trade activity with the EU (and especially with the new EU countries).

An extremely important finding of the study of the EU-ENP trade relations is the inability of the ENP countries to implement export-led growth strategies. The analysis of the degree of relatedness between exports products, conducted on the basis of co-occurrence analysis, investigates the process of diversification of the EU and the ENP countries. The results obtained confirm the path-dependence in the diversification process. This means that all EU and ENP countries tend to jump into new industries that are related to their current productive structure, because they can exploit the existing capabilities. However, the effect of density is much stronger in the case of the ENP countries, signalling the existence of different types of capabilities. In particular, EU countries are, also, able to diversify into less related industries because of general-purpose capabilities, while the ENP countries have to rely much more on the relatedness between products and the specific capabilities necessary to produce them. Moreover, it is revealed that imports may have an impact on the trajectory of the productive structure of countries, provided that absorptive capabilities exist. However, in practice, only EU countries are able to diversify into sectors related to their imports. The productive structure of trade partners, instead, does not have any impact on the diversification process, but it provides economic incentives to both EU and ENP countries to keep producing in old sectors that are related to what their partners do. The analysis on country diversification suggests, however, that, although path dependence matters, there is still the possibility that the network of relations in which countries are embedded might change the direction and the intensity of the process. This is, indeed, an important message.

This is so as there is potential for the ENP countries to strengthen their links with the EU countries. The analysis conducted under a micro-scopic perspective, at the level of firms, reveals that even though about 70% of the EU firms are exporters, of these less than 6% have the ENP countries as main (i.e. first, second or third) export destination and just 2% decide to have an ENP country as their first export destination. In accordance with the results from the gravity model, on the basis of national trade data, the analysis of firm-level trade data, stresses out the fundamental role of geographical and cultural proximity on explaining where EU trade flows are addressed. Focusing on the specific characteristics (such as the level of employment and the level of productivity) of the EU firms exporting to the ENP countries, no significant differences can be traced, comparing to the corresponding firms exporting to other (than the ENP countries) export destinations. Exploring on intensive and extensive margin, it seems that exporting areas affect differently firms' propensity to export as well as firms'

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amount of exports. EU firms trade mostly with other EU firms (verifying that EU trade is mostly intra-EU), even though in size (quantity) terms exports outside the EU are much more consistent. Especially looking at extensive margin, the decision on behalf of EU firms to export (or not) is primarily affected by intra-EU trade.

Having obtained a series of important findings and conclusions on the level and the nature of the EU-ENP trade relations, it is important to examine the overall impact of the EU-ENP trade relations on the economic growth of the latter. The analysis of the EU-ENP trade activity, both for the entire EU and for particular EU sub-groups (i.e. core EU, old EU periphery, new EU periphery) makes evident that the long-run causality between trade indicators (i.e. indicators of openness and integration) and growth runs depends on the EU trading partners. While the higher-income subpanel (i.e. EU core) shows a negative causality, the lower-income countries (i.e. EU periphery) exhibit a positive relationship between growth and trade indicators. Indeed, in terms of trade openness and integration, the analysis shows that trade expansion with the EU contributes to ENP growth mainly when it concerns trade with the middle and low income EU members, that is, the Southern and the Central-Eastern EU members. In their case, the expansion of trade as a share of GDP is beneficial for ENP growth. On the contrary, when the expansion of trade as a share of GDP is related to the high income EU members, the impact on growth is negative. The analysis also shows that with existing productive capacities and structures, ENP GDP growth stimulates the expansion of trade relations as a share of GDP only with the middle and low level of income EU member states. Hence, the growth-led openness and openness-led growth hypotheses can only be supported for lower-income EU traders. Given that the EU-ENP trade relations represent a "North-South" type of integration, this is a finding of extreme importance, casting doubt on the mainstream win-win models of trade and development.

2.2.   Capital mobility among EU and neighboring countries

There are 5 Working Papers analysing capital mobility among EU and its neighboring countries, according to Task 2.2. of SEARCH Project. These Working Papers are: a) WP2/05: Location choices of multinational companies in transition economies: A literature review (authors: Daria Zvirgzde, Daniel Schiller and Javier Revilla Diez); b) WP2/12: MNEs location decisions in EU neighboring countries and economic institutions (authors: Andrea Ascani, Riccardo Crescenzi and Simona Iammarino); c) WP2/13: Origin of FDI and domestic productivity spillovers: Does European FDI have a "productivity advantage" in the ENP countries? (authors: Vassilis Monastiriotis and Mireia Borrell); d) WP2/14: Location choices of multinational companies in Ukraine (authors: Daria Zvirgzde, Daniel Schiller and Javier Revilla Diez); and e) WP2/15: Impacting innovation behavior of foreign and domestic firms: The case of Ukraine (authors: Daria Zvirgzde, Daniel Schiller and Javier Revilla Diez).

The general objective of Task 2.2. is to undertake a theoretical discussion and an empirical analysis of capital mobility from the EU to the ENP countries in order to provide an assessment of the role of firms' localization decisions on the economic social divide between the enlarged EU and its neighbors. A wide array of research methodologies are, also, employed and significant research findings, with important implications for policy-making, are obtained. Together, all Working Papers cover, to a great extent, the full spectrum of the issue. The analysis covers the period 2003-2012, focusing, mainly, to the period after the launch of the ENP, and utilizes both secondary and primary data. Secondary data are derived from FDi-MARKET and BEEPS databases. FDi-MARKET database includes information on individual investment projects (i.e. greenfield and brownfield investments) undertaken by multinational firms. BEEPS database includes information about the business and the

business environment of firms. Primary data are obtained from field research conducted within the framework of SEARCH Project.

A theoretical analysis on the role of offshoring in the dynamic evolution of prosperity gaps between more and less industrialized countries provides the outline for the study of FDI for the EU to ENP countries. Special attention is being paid to FDI flows to transition economies, since, to a large extent, they owe their economic and social transformation to foreign firms, which introduce knowledge, technology and new opportunities into these emerging markets.

While the EU increases its interaction with the ENP countries, the EU (multinational) firms have the opportunity to exploit a larger number of markets, having a wider set of locations where to invest and set up their foreign operations. The patterns of investment undertaken by EU Multinational Companies (MNCs), towards a wide set of locations that are geographically close to the EU, are studied. Investigating the location strategies of MNCs is an important task as the presence of foreign-owned firms is frequently claimed to be beneficial for domestic firms. Indeed, MNCs are thought to carry more advanced technology and skills, which are asserted to benefit domestic firms through increases in both local factors' productivity and innovative performance. Therefore, the occurrence of potential effects that MNCs exert on recipient economies represents a fair justification to investigate in depth the location strategies of these international actors. Of course, MNCs global activities are important by themselves. In fact, over the last twenty years, the volume of FDI has dramatically increased and the attraction of affiliates of MNCs has reached the core of the policy agenda in most countries. The methodology of Random-Coefficient Mixed Logit model is employed to study the location behavior of EU MNCs. This methodological choice is rarely employed in previous research despite its clear advantages (over more commonly used methods). In fact, the great majority of studies tend to model MNCs location decisions through Conditional Logit model or Nested Logit model. For this reason, the results obtained from the implementation of Random-Coefficient Mixed Logit model are compared to the respective results obtained from the implementation of Conditional Logit model and Nested Logit model. Emphasis is given to the specific role played by economic institutions in shaping the patterns of MNCs behavior. This is rarely considered in the related literature, which mostly explores agglomeration forces and locational advantages mainly conceptualized in terms of factor endowments. Nonetheless, evaluating the relevance of economic institutions for foreign investors that undertake operations in transition and developing economies appears to be a crucial area for analysis.

From the EU side, the ENP provides an institutional framework of association (including preferential trade agreements) which, arguably, gives EU firms a relative advantage at least in the sense of reducing entry costs and uncertainties (such as information asymmetries and legal barriers). If, as it is believed to have happened in the new EU member-states, the framework of association facilitates less speculative and more long-term strategic investments, then EU-originating investments are likely to be more organically linked to the local economies of the host countries, thus, possibly, generating larger spillovers for domestic firms. This hypothesis is examined by applying a standard production-function approach to estimate the productivity spillovers accruing to domestic firms by the presence of foreign investments and examine how these spillovers vary both for groups of countries belonging to different processes with respect to EU association and separately for investments of EU and non-EU origin. The localization of these spillovers is further investigated by examining how their intensity varies at different geographical scales (national – regional) and for different types of locations (capitals versus the rest). Thus, the study covers issues, which have attracted less attention in the transition literature, relating to questions of geography and space – albeit in different dimensions. The first issue concerns the role of the origin of foreign investments for the size of the observed spillovers and the second issue concerns the geography of spillovers within the

recipient countries. The standard production function used incorporates, in addition to the two main factors of production (capital, measured by fixed assets, and labor), the share of foreign presence in the sector where each firm is located. Additionally, the model includes various controls for the different dimensions of the sample (e.g. Fixed Effects for countries and years). The main independent variable of the model is horizontal spillovers, which is constructed using each individual firm's reported share of foreign ownership and information on country, sector and yearly output of each firm. Firm-level output is first multiplied by each firm's foreign ownership share and aggregated to country-sector-year clusters. Then, horizontal FDI variable is calculated as the ratio of this variable to total output in the cluster. The same approach is followed for the construction of the origin- and region-specific measures. The model is estimated using, alternatively, Ordinary Least Squares estimation technique and Fixed Effects estimators, the latter in order to correct for the non-independence of repeated observations (firms) over time. The Fixed Effects estimation controls for unobserved firm-specific characteristics (e.g. management quality) but effectively removes from the estimating sample all those firms that only appear in the sample once.

Besides the utilization of secondary data, the study, also, utilizes primary data. Based on empirical enterprise survey of 153 foreign-owned firms, carried out in 3 Ukrainian regions (namely: Kyiv, Lviv, and Kharkiv), empirical answers are provided to a number of research questions. What are the motives of foreign investors coming to different regions of Ukraine? What are the region-specific factors that determine the location choices of foreign firms in Ukraine? How does regional institutional quality in Ukraine impact the propensity of foreign firms to invest in certain regions in Ukraine? The conceptual framework of the study deals not only with place-specific characteristics of the receiving country, but takes a broader look at the motives of foreign firms to invest in local capabilities in the host region, covering, also, in such a way, the management perspective of investors with regard to the value added of their managerial investment decision making. Moreover, the link between initial aims of MNCs and their strategic orientation in the host region is uncovered. This approach provides a comprehensive picture of patterns of location decisions for FDI in transition economies and more specifically in Ukraine. In particular, a thorough theoretical framework on location choices of MNCs is provided by integrating institutional and proximity components within the empirical results on traditional economic factors that attract FDI to certain localities within transition economies, specifically Ukraine, and institutional and proximity parameters of regions that attract or distract MNCs in order to determine the impact of the institutional environment and proximity advantages of certain regions on the propensity of foreign firms to invest in certain regional host markets. The empirical data of the enterprise survey is represented by a set of a standardized questionnaire data with closed Likert scale questions. The questionnaire consists of 6 thematic blocks (i.e. fact sheet, location choices and location patterns, business environment, innovation, customer-supplier relations, and human capital and skills development). Data derived from the questionnaire are elaborated using a descriptive statistical analysis. Then, a Multinomial Logit Regression model, with the regional dummy being the dependent variable, is compiled in order for the probability of a foreign firm to enter each of the Ukrainian regions considered to be estimated.

The empirical survey on foreign firms operating in Ukraine is coupled with an empirical survey for the corresponding domestic firms. In particular, an empirical survey is conducted for 305 domestic firms operating in the exact same Ukrainian regions (i.e. Kyiv, Lviv, and Kharkiv). The study aims at explaining the location choices of MNCs in a transition economy, namely Ukraine, by traditional economic factors as well as by institutional quality. In particular, empirical answers to a number of research questions are provided. Are there regional, ownership and sectoral differences in the way firms innovate? What determines the innovation behavior of foreign-owned and domestic firms? How does local institutional

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quality impact innovative activities of firms? The study considers 3 forms of innovation: product innovation, process innovation, marketing and organizational innovation. These innovation forms are defined according to the Oslo Manual. Product innovation represents a significant change of the characteristics of a product or process or an introduction of an absolutely new good or service. Process innovation represents significant changes in the production or delivery methods. Organizational innovation leads to the implementation of new organizational practices i.e. business methods, workplace organization, and firm's external relations. Marketing innovation involves realization of new marketing methods, such as new product designs, new packaging, new ways of product placement and promotion, pricing of goods and services. The empirical data of the enterprise survey for domestic survey is, also, represented by a set of a standardized questionnaire data with closed Likert scale questions. The questionnaire consists of 6 thematic blocks (i.e. fact sheet, competition and strategy, business environment, innovation, customer-supplier relations, and human capital and skills development). Data derived from the questionnaire are elaborated using a descriptive statistical analysis. Together, with the data derived from the survey for domestic firms the corresponding data derived from the survey for foreign firms are utilized. Then, 3 Binary Logit Regression models are compiled in order to identify the absorptive capacity and the innovation behavior of the foreign and domestic firms operating in Ukraine.

Controlling for traditional drivers of location behavior, the study of capital mobility from the EU to the ENP countries provides evidence for the significant role of institutions. Overall, economic institutions prove to be relevant drivers of MNCs' location choices. However, not all aspects of host countries' economic institutional environments matter the same degree. Economic institutions are distinguished to those related to government expenditure, to property rights, to legal system, to monetary aspects and to regulations in markets. While economic institutions related to government expenditure, to property rights, and to legal system affect positively the decisions of foreign investors to undertake operations in the ENP countries, the others do not seem to be relevant drivers. Of course, there are standard elements (such as the size of host markets, market potential, agglomeration forces, trade costs and geography, wages, and education levels) that, also, contribute to shape MNCs' strategies. Moving a step further, it is interesting that heterogeneity in MNCs' preferences over economic institutions occurs in location strategies. It turns out that the indicators for property rights, legal system and monetary institutions are subject to a certain degree of taste variation in MNCs' preferences. As far as heterogeneity in monetary aspects of economic institutions are concerned, it might be that there are underlying differences at the MNCs' individual level with respect to the modes of financing subsidiaries' activities. Therefore, MNCs that undertake operations in locations with higher rates of inflation may set up affiliates that borrow money externally from local financial markets rather than internally from the parent company. Importantly, most MNCs prefer locations where economic institutions are better enforced.

The ENP has transformed EU's external relations with its near neighbourhood and has linked them inexorably with the processes of institutional adaptation (Europeanisation) and economic integration (trade liberalisation and preferential agreements). Because of this, and despite its political and foreign-policy origins, the ENP has become today one of the main economic-policy EU instruments and has accelerated and intensified economic flows and interactions between countries and between businesses across the two regional blocks. Within the ENP context, the examination of the size and direction of productivity spillovers, generated by EU and non-EU FDI, accruing to the domestic economies offers a plethora of interesting findings. The example of the ENP East countries, in particular, suggests that EU-originating FDI appear to have a "productivity advantage" over investments from other parts of the world, in the sense that it tend to generate greater productivity spillovers for domestic firms or, at least, less significant negative effects. Although theoretically it is possible that this result

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may emanate purely from technology and other advantages possessed by EU firms relative to other investors, in practice it is difficult to argue that EU MNCs would be systematically more advanced than MNCs of other origins. If this is true, then it can be argued that at least part of this productivity advantage must be related to the process of EU association, which gives a preferential access to EU firms in the host economies and harmonises their institutional and legal environment. Of course, FDI spillovers, including EU ones, have not reached their maximum value in the ENP region. The example of Southeastern European countries, where the involvement of the EU is magnified, indicates that such spillovers are very positive and strong, despite the fact that the recipient countries sharing similar problems of institutional quality and absorptive capacity with many of the ENP countries. This, in turn, suggests that further approximation with the countries of the ENP region and further intensification of economic links and capital flows may prove to be increasingly beneficial for the domestic economies. Of course, at this point it has to be stressed out that the observed productivity spillovers, although not particularly localised, tend to be significantly stronger and more positive for firms located in the capital-city regions of the recipient countries, irrespective of the location of the foreign firms. As FDI tends to concentrate in, or near, capital cities anyway, it follows that it, indeed, acts to amplify within-country spatial disparities. This finding raises important concerns about the role and consequences of foreign capital inflows as the processes of transition, development and internalization (openness) are long-known to be related to widening regional disparities. This is so as, at least in their initial stages, they benefit the most dynamic, extrovert and human-capital abundant parts of an economy.

The paradigm of Ukraine provides strongly verifies the aforementioned findings. The results of the empirical analysis for Ukraine show that market seeking investors will most probably invest in the capital region, Kyiv, rather than in the bordering regions, Lviv and Kharkiv. Large market potential, better access to resources and higher institutional quality of the capital will attract greenfield investors. Close to the EU border, Lviv region except for having an absolute advantage of being proximate to the EU border, pulls in investors due to its human capital concentration. These findings go in line with an assumption of the less post-Soviet legitimacy of the western region Lviv, whereas in close to the Commonwealth of Independent States (CIS) border region Kharkiv the old industrial infrastructure as the remains of the planned economy is still present. This leads to the attraction of the foreign investments originating from CIS to serve the local market with pre-established customer-supplier networks. Overall, better institutional quality of the capital region results in the attraction to the latter of FDI firms assessing institutional environment at the current location as of good quality. This supports the argumentation of the importance of the institutional environment as a pull factor for FDI inflows, but also indicates an uneven government support of regional economic systems, leading to a disproportional regional development.

Empirical analysis uncovers the relationship between the factors impacting innovation activities of firms and the output of such activities. Firms located in Kyiv are more product-innovators and those located in Lviv are more process-innovators. This leads to overall innovation propensity of firms in Lviv being higher than that of Kyiv. However, one should be careful in stating that firms in Lviv are more innovative than those located in Kyiv due to a lesser technology- and capital-intensity of process innovations *per se*. Bordering regions still perform quite poor with regard to absorptive capacity parameters, namely R&D investment and involvement of R&D-related staff, in comparison to the capital region. Overall, foreign-owned firms are excelling domestic counterparts in terms of innovation progress. Greenfield FDIs are the most innovative firms, whereas domestic new private firms perform the worst. This is also supported by the evidence that domestic firms have much lower absorptive capacity in comparison to the subsidiaries of MNEs that bring along new knowledge and technologies. In any case, high quality institutional environment is important for the innovation propensity of firms. Thus, when institutional framework

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is supportive towards firms, it impacts positively their innovation performance, but when institutional environment gets thick, it becomes a burden for business agents, which cannot introduce innovations as they get locked in.

2.3.   Spatial implications of integration and expansion of capital flows in and out of the EU borders

There are 2 Working Papers analyzing the spatial implications of integration and expansion of capital flows in and out of the EU borders, according to Task 2.3. of SEARCH Project. These Working Papers are: a) WP2/16: Regional inequalities in the European Neighborhood Countries: The effects of growth and integration (authors: George Petrakos, Dimitris Kallioras and Maria Tsiapa); and b) WP2/17: The effect of FDI on regional inequality in the ENPs: Evidence from Israel (authors: Michael Beenstock, Daniel Felsenstein and Ziv Rubin).

The general objective of Task 2.3. is to investigate the spatial implications of trade and FDI flows between the EU and the ENP countries in order to shed light on a wide set of countries that has remained, largely, unexplored (not only at the regional level but also at the national one). The study overcomes the limitation of data at the regional level, either through data mining (and the compilation of database) or through the conduct of indirect estimations. Together, all Working Papers provide a complete first insight on the issue. The analysis covers the period 1987-2010. Data derived from SEARCH database as well as from national data sources. SEARCH is a unique data set, compiled within the framework of SEARCH Project, which includes stylized facts (i.e. economic, demographic, structural, social) for the regions of many ENP countries.

The experience in Europe and elsewhere shows that the process of socio-economic transformation and internationalization in countries of medium or medium-low levels of development may have serious implications for the spatial organization of their economy and the spatial balances of population and productive activities. The study investigates the patterns of spatial inequality in the ENP countries and the driving forces behind these processes, paying a special attention on the impact of economic growth and deeper integration into the European economy. So far, the analysis conducted in respect to capital mobility generates important implications for the regional (i.e. sub-national) level. In particular, WP2/13 reveals that productivity spillovers accruing to domestic firms by the presence of foreign investments, althouth not particularly localized, tend to be significantly stronger and more positive for firms located in capital regions of the recipient countries. As FDI tends to concentrate in, or near, capital cities, it follows that it, indeed, acts to amplify within-country spatial disparities. European FDI appears to have the strongest contribution to this adverse geographical effect, partly owing to the fact that its effect is also stronger at the national level. This finding raises important concerns about the role and consequences of foreign capital inflows in the former transition countries of the eastern and southeastern periphery of Europe. Processes of transition, development and internationalization (openness) are long known to be related to widening regional disparities, as they benefit, at least in their initial stages, the most dynamic, extrovert and human-capital abundant parts of an economy. WP2/14 and WP2/15, focusing on Ukraine, and in particular, on the regions of Kyiv, Lviv and Kharkiv, verify the predominance of the capital region, Kyiv, as better institutional quality of the latter results in the attraction of foreign firms. The study conducts a comprehensive analysis testing for the impact of growth and integration with the EU on the regional balances of the ENP countries. First, regional inequalities in the ENP countries are estimated, in per capita GDP terms, using the Weighted (by the level of population) Coefficient of Variation. Then, capitalizing on earlier work on EU countries and

examining empirically the role of growth dynamics and the international environment on regional disparities, an empirical model is compiled aiming at providing insight to a series of research questions. What are the drivers behind the increase of regional inequalities in the ENP countries? Why the process of growth has been so unbalanced in a number of countries, especially in the ENP East? What can be expected in the future? The model uses Panel Least Squares estimation technique because of the limited number of available information, because of its wide use in the literature, especially during the last two decades, and because of its advantages over the Ordinary Least Squares.

Special attention is paid to Israel, the most developed ENP country. Providing evidence from Israel, the study investigates whether FDI polarizes regional inequality in host countries. In the absence of FDI data at the regional level, a method for estimating the effects of FDI on regional inequality is proposed. This method is presented for Israel. With the use of time series data, it is shown that regional capital stocks vary directly with the stock of national FDI and other variables, and that the sensitivity of regional capital stocks to FDI varies by region. Then, with the use of regional panel data, it is shown that regional wages vary directly with regional capital-labor ratios. In this way, a link is established between FDI and regional wages via regional capital. Finally, the factors driving regional wage inequality, as measured by the variance of regional wages, are decomposed. One of the factors is the polarizing effect of FDI on regional wages.

The findings of the study indicate that regional dynamics in the external EU periphery are characterized by spatial selectivity and an, overall, unfavorable environment for lagging-behind regions. Over the last decade, regional inequalities have increased significantly in most ENP countries to levels that are unusually high by European standards. Some countries have experienced a core-periphery pattern of development with metropolitan regions dominating the national economy and lagging-behind regions being in a great difficulty to catch-up. The empirical model reveals that disparities at the national level exhibit a pro-cyclical behaviour, increasing in periods of expansion and decreasing in periods of slow growth or recession. Moreover, the model suggests that long-term processes embodied in the level of development tend to favour a more equal allocation of activities and resources over space. However, this balancing effect will take place after a level of development that most ENP countries will not attain in the immediate future. The model employed indicates that, with the exception of public policy, all other drivers of regional growth (i.e. growth level, per capita GDP level, integration with EU in terms of trade and FDI) tend to favor the more advanced and the metropolitan regions. The peripheral, structurally weak and lagging regions are expected to experience an inferior growth performance and a pressure in their productive base arising from integration and competition from the more advanced European partners.

Concerning Israel, the analysis verifies that FDI increases regional capital stocks unequally, thereby exacerbating regional differences in labor productivity. Since regional wages vary directly with labor productivity a mechanism is established between FDI and regional wages. However, if regional labor supplies are elastic, the increase in wages induces employment, which mitigates the increase in wages, thereby offsetting the polarizing effect of FDI, partially and even totally. Since the elasticity of regional labor supply varies directly with internal migration, the polarizing effects of FDI on regional wage inequality may be mitigated by public policy which encourages internal migration. Overall, the findings of the analysis show that the polarizing effect of FDI on regional inequality may be large. The regional sensitivities to FDI shocks in Israel reflect distinct core-periphery differences. Of course, in a small country such as Israel, this effect is likely to be smaller than in larger countries (like many ENP countries) where the physical distances between center and periphery are greater. In larger countries such as Morocco, Egypt or Ukraine, there may be entire regions not reached by FDI, which naturally would

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exacerbate the polarizing effect of FDI. Therefore, in other ENPs, which are much larger than Israel, the polarizing effect of FDI is likely to be even greater.

3.   FINAL REMARKS

The ENP is a unified policy framework towards neighboring countries, offering conditional preferential economic and political relations in exchange of the recipient countries' adherence to its principles. The ENP aims at strengthening the prosperity, stability and security of the EU, creating a "ring of friends" around the EU political borders. Representing a "carrot and stick" tactic, DCFTAs, the main policy thrust of the ENP, consider mandatory *acquis communautaire* compliance as a pre-condition for trade negotiations (and agreements) between the EU and the ENP countries. This means that even though the possibility of accession has been ruled out for the majority of the ENP countries (i.e. the component of "carrot" is significantly weak), the latter operate under conditions of "neighborhood Europeanization", which are tantamount to economic integration. Despite its political and foreign policy origins, the ENP has transformed EU's external relations with its near neighbourhood and has linked them inexorably with the processes of institutional adaptation (Europeanisation) and economic integration (trade liberalisation and preferential agreements). Thus, the ENP has become today one of the main economic-policy EU instruments and has accelerated and intensified economic flows and interactions between the EU and the ENP countries (and businesses as well).

WP2 of SEARCH Project has the general objective to study, both theoretically and empirically, the patterns of economic interaction between the EU and the ENP countries, to project future trends and identify the effects of higher levels of economic integration to the growth, competitiveness and cohesion prospects of both areas. To this end, the study on trade flows and localization choices exploits a wide array of, standard as well as more sophisticated, research methodologies. Primary and secondary data utilized refer at different spatial and sectoral levels, and cover the period from 1995 up to date in order to capture the latest shifts that took place in both the EU and the ENP countries, besides the launch of the ENP in itself. The findings the study shed light on a wide set of countries that has remained, largely, unexplored, especially at the regional (i.e. sub-national) level, and provide valuable insight to both academic theory and policy-making.

The ENP has, indeed, accelerated and intensified economic flows between the EU and the ENP countries (as well as between the corresponding businesses). However, the interaction between the EU and the ENP countries has not reached its maximum value. This suggests that further approximation between the EU and the ENP countries is necessary. To this end – and given that, up to now, the ENP has not produced the anticipated results – a discussion about a reinvigoration of the current perspective of the ENP is *ante portas*. Such a discussion (if and when, eventually, it is made) should take into a consideration a couple of extremely important remarks. The first remark is that the pattern of integration between the EU and the ENP countries is uneven, unbalanced and asymmetric. This, inter-industry, type of integration is not in a position to narrow the welfare gap between the EU and the ENP countries. The second remark is that the interaction between the EU and ENP countries generates spatial side-effects (imbalances), favoring, mostly, the capital and the most dynamic regions in the ENP countries. Should they take these remarks into consideration, the ENP may pave the ground for deeper and more sustainable integration between the EU and its neighbors.

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To do so, the EU policy towards the ENP countries needs to obtain a deeper level of understanding of the interactions between the international and the regional dynamics in the latter. This is, definitely, not an easy task. Challenging mainstream policy perspective, the research team, after setting a number of (uncomfortable) policy dillemas, offers a set of delicate policy recommendatios to this direction. Policy recommendations are offered in the corresponding Policy Brief texts.

4. POTENTIAL IMPACT

The research findings of the WP2 of SEARCH Project have an impact on both theory and policy-making. In terms of theory, the research findings of WP2 indicate that concentration forces, currently, dominate the operation of most ENP countries. In contrast, dispersion processes are expected to appear at higher levels of development. Due to the low level of economic development, the vast majority of the ENP countries experiences a cumulative and path-dependent process of growth, while the celebrated space-balancing effects of the neoclassical school of thought can only be hopped to take place in the distant future. In terms of policy-making, the research findings of WP2 suggest that economic integration is not always beneficial. Trade partners and the mix of products/activities involved matter. The idea that the EU can integrate, without incurring any cost, to its core productive system countries that enjoy significantly lower welfare level and have significantly different production structures, needs to be re-examined. In any case, the benefits accruing by the process of economic integration contribute to the increase of regional inequalities. The pro-cyclical character of regional inequalities sets a new framework for the discussion about regional policy in low income countries.

Studying the patterns of economic interaction between the EU and the ENP countries is an ambitious undertaking. Up to date, very few similar studies have been (sporadically) ventured. SEARCH Project addresses central objectives stated in the 2010 FP7 SSH Work Programme. In particular, SEARCH Project contributes to the consolidation of the European Research Area by forming a multinational research team, cooperating with researchers from ENP countries (such as Israel, Morocco and Ukraine), as well as from Turkey and Russia, and communicating the results to a wider international audience. The primary means for exploiting the results of SEARCH Project, and thus assuring scientific, policy and European added-value, is through the research team's dissemination activities. The research team is committed to maximizing the impact of the knowledge (to be) created, in terms of its dissemination to relevant stakeholders and scientific community that can take advantage of the research findings. Particular focus is given on regional, national and EU policy-makers. The targeted dissemination actions will be ongoing throughout SEARCH Project as the involvement of policy-makers, and other stakeholders, is considered to be of paramount importance in order for SEARCH Project, and WP2 in particular, to achieve the expected results.

At this point, a couple of extremely important dissemination activities on behalf of the research team should be stressed out. The first activity is the recently organized Special Session, titled "Trade Flows and Localization Choices: Patterns of Economic Interaction between the EU and its Neighboring Countries", at the 53rd ERSA Congress (held in Palermo, from the 27th to the 31st of August 2013). During the Special Session, members of the research team as well as scientists outside SEARCH Project had the opportunity to communicate their research work and findings. UTH, as coordinator of WP2, organized this Special Session with the support of all SEARCH Partners. The second activity is the participation of members of the research team to

the final SEARCH Academic Conference (which will be held in Barcelona, from the 10th to the 11th February 2014), Once again, the results of WP2 are going to be disseminated in a wide international audience.

5. FURTHER RESEARCH

Research is a non-stop activity and, thus, further research is going to be conducted within the framework of SEARCH Project. Deliverables 2.3. and 2.4. are going to be submitted in November 2013 (i.e. the 28th month of SEARCH Project). Deliverable 2.3. is a report presenting the main findings of WP2 and discussing the policy-options that will increase the benefits of integration for both the EU and the ENP countries. Deliverable 2.4. is a report including empirical studies on the development of the relations among the EU the ENP countries based on trade and capital flows. The vast majority of these studies are going to be edited in a special issue that is going to be published in a distinguished scientific journal, in the ending (36th) month of SEARCH Project (i.e. July 2014).

6. DEVIATIONS FROM INITIAL PROPOSAL

The research progresses smoothly and in line with the structure of Annex I to the Grant Agreement.

ANNEX 1

Annex 1 presents a list of the Working Papers (i.e. author(s), title and number of each Working Paper and a link to the webpage of SEARCH Project) attached to Deliverable 2.2. of SEARCH Project. The list is ordered by Tasks.

Task 2.1.: Analysis of trade patterns over time in EU and neighboring countries

Liargovas Panagiotis (2013), EU trade policies towards neighboring countries, *SEARCH Working Paper,* 2/01. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.1.pdf.

Pinna Anna Maria (2013), Is the EU the best trade partner for its neighbors? *SEARCH Working Paper*, 2/02. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.2.pdf.

Artelaris Panagiotis, Kallioras Dimitris, Petrakos George and Tsiapa Maria (2013), The geography of trade relations between the EU and the ENP countries: Empirical analysis and implications for theory and policy-making, *SEARCH Working Paper*, 2/03. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.3.pdf.

Boschma Ron and Capone Gianluca (2013), Relatedness and diversification in EU and ENP countries, *SEARCH Working Paper*, 2/04. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.4.pdf.

Kallioras Dimitris (2013), Trade activity between the EU and the ENP countries: A "reproduction" of the "core-periphery" pattern? *SEARCH Working Paper*, 2/06. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.06.pdf.

Petrakos George, Kallioras Dimitris and Artelaris Panagiotis (2013), The geography of trade relations between the EU and the ENP countries: Emerging patterns and policy recommendations, *SEARCH Working Paper*, 2/07. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.07.pdf.

Kallioras Dimitris and Petrakos George (2013), The determinants of trade activity among the EU and the ENP countries, *SEARCH Working Paper*, 2/08. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.08.pdf.

Boschma Ron and Capone Gianluca (2013), Mind your step: The heterogeneous effect of relatedness on the diversification process in EU and ENP countries, *SEARCH Working Paper*, 2/09. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.09.pdf.

Pinna Anna Maria, Schivardi Fabiano and Licio Vania Manuela (2013), The European firms' export activity to the neighboring countries, *SEARCH Working Paper*, 2/10. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.10.pdf.

Anagnostou Ageliki, Kallioras Dimitris and Petrakos George (2013), Integrating the neighbors: A dynamic panel analysis of EU-ENP trade relations, *SEARCH Working Paper*, 2/11. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.11.pdf.

Task 2.2.: Capital mobility among EU and neighboring countries

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Location choices of multinational companies in transition economies: A literature review, *SEARCH Working Paper*, 2/05. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.5.pdf.

Ascani Andrea, Crescenzi Riccardo and Iammarino Simona (2013), MNEs location decisions in EU neighboring countries and economic institutions, *SEARCH Working Paper*, 2/12. Available http: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.12.pdf.

Monastiriotis Vassilis and Borrell Mireia (2013), Origin of FDI and domestic productivity spillovers: Does European FDI have a "productivity advantage" in the ENP countries? *SEARCH Working Paper*, 2/13. Available http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.13.pdf.

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Location choices of multinational companies in Ukraine, *SEARCH Working Paper*, 2/14. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.14.pdf.

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Impacting innovation behavior of foreign and domestic firms: The case of Ukraine, *SEARCH Working Paper*, 2/15. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.15.pdf.

Task 2.3.: Spatial implications of integration and expansion of capital flows in and out of the EU borders

Petrakos George, Kallioras Dimitris and Tsiapa Maria (2013), Regional inequalities in the European Neighborhood Countries: The effects of growth and integration, *SEARCH Working Paper*, 2/16. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.16.pdf.

Beenstock Michael, Felsenstein Daniel and Rubin Ziv (2013), The effect of FDI on regional inequality in the ENPs: Evidence from Israel, *SEARCH Working Paper*, 2/17. Available: http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH_Working-Paper_2.17.pdf.

Task 2.4.: Policy implications.

Each Working Paper has a Policy Notes addendum i.e. a 2-3 pages text consisting of 3 parts: a) objectives of research in reference to policy; b) scientific/research methods; and c) policy value-added. Each Policy Notes text has contributed to the preparation of the Policy Brief texts, which refer to the Tasks of Deliverable 2.2. The Policy Brief texts incorporate the policy implications of the research findings, easing, thus, the (effective) communication with the policy-makers.

ANNEX 2

Annex 2 presents a list of the Working Papers (i.e. author(s), title, number and abstract of each Working Paper) attached to Deliverable 2.2. of SEARCH Project. The list is ordered by Tasks.

Task 2.1.: Analysis of trade patterns over time in EU and neighboring countries

Liargovas Panagiotis (2013), EU trade policies towards neighboring countries, *SEARCH Working Paper*, 2/01.

Pinna Anna Maria (2013), Is the EU the best trade partner for its neighbors? *SEARCH Working Paper*, 2/02.

Artelaris Panagiotis, Kallioras Dimitris, Petrakos George and Tsiapa Maria (2013), The geography of trade relations between the EU and the ENP countries: Empirical analysis and implications for theory and policy-making, *SEARCH Working Paper*, 2/03.

Boschma Ron and Capone Gianluca (2013), Relatedness and diversification in EU and ENP countries, *SEARCH Working Paper*, 2/04.

Kallioras Dimitris (2013), Trade activity between the EU and the ENP countries: A "reproduction" of the "core-periphery" pattern? *SEARCH Working Paper*, 2/06.

Petrakos George, Kallioras Dimitris and Artelaris Panagiotis (2013), The geography of trade relations between the EU and the ENP countries: Emerging patterns and policy recommendations, *SEARCH Working Paper*, 2/07.

Kallioras Dimitris and Petrakos George (2013), The determinants of trade activity among the EU and the ENP countries, *SEARCH Working Paper*, 2/08.

Boschma Ron and Capone Gianluca (2013), Mind your step: The heterogeneous effect of relatedness on the diversification process in EU and ENP countries, *SEARCH Working Paper*, 2/09.

Pinna Anna Maria, Schivardi Fabiano and Licio Vania Manuela (2013), The European firms' export activity to the neighboring countries, *SEARCH Working Paper*, 2/10.

Anagnostou Ageliki, Kallioras Dimitris and Petrakos George (2013), Integrating the neighbors: A dynamic panel analysis of EU-ENP trade relations, *SEARCH Working Paper*, 2/11.

Task 2.2.: Capital mobility among EU and neighboring countries

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Location choices of multinational companies in transition economies: A literature review, *SEARCH Working Paper*, 2/05.

Ascani Andrea, Crescenzi Riccardo and Iammarino Simona (2013), MNEs location decisions in EU neighboring countries and economic institutions, *SEARCH Working Paper*, 2/12.

Monastiriotis Vassilis and Borrell Mireia (2013), Origin of FDI and domestic productivity spillovers: Does European FDI have a "productivity advantage" in the ENP countries? *SEARCH Working Paper*, 2/13.

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Location choices of multinational companies in Ukraine, *SEARCH Working Paper*, 2/14.

Zvirgzde Daria, Schiller Daniel and Revilla Diez Javier (2013), Impacting innovation behavior of foreign and domestic firms: The case of Ukraine, *SEARCH Working Paper*, 2/15.

Task 2.3.: Spatial implications of integration and expansion of capital flows in and out of the EU borders

Petrakos George, Dimitris Kallioras and Tsiapa Maria (2013), Regional inequalities in the European Neighborhood Countries: The effects of growth and integration, *SEARCH Working Paper*, 2/16.

Beenstock Michael, Felsenstein Daniel and Rubin Ziv (2013), The effect of FDI on regional inequality in the ENPs: Evidence from Israel, *SEARCH Working Paper*, 2/17.

EU trade policies towards neighboring countries

SEARCH Working Paper, 2/01.

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ABSTRACT

This paper reviews the complex EU trade policies towards neighbouring countries. It reveals that EU neighbouring countries do not form a homogenous group, neither in terms of geography nor in terms of income. Israel, for example, has a GDP per capita which in many cases is more than 10 times larger compared to the poorest EU neighbors (e.g. Armenia, Georgia, Egypt, Moldova, and Morocco). The EU has applied a varying degree of trade integration and trade strategies to her neighbors, ranging from shallow to deep integration and from bilateral to multilateral strategy. The effectiveness of such EU trade policies is critically discussed.

Is the EU the best trade partner for its neighbors?

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ABSTRACT

The main goal of this paper is to examine in depth the bilateral trade relationships between the EU and its neighbouring countries over the last fifteen years in order to identify whether trade patterns have changed over time, mainly since the introduction of the European Neighborhood Policy (ENP) in 2004. The European Neighbouring Countries are developing countries (middle-low income countries) which, thanks to their proximity to European borders, have close relations with the EU and aspire to become member states. To achieve the main objective we have explored trade flows between the EU and the ENCs by acting in different ways. We split ENCs into four different sub-regions in order to understand regional performance. We have taken into account ENCs trade flows from and to emerging economies and the major world partners so as to determine whether Europe is losing its key role and whether its main competitors are gaining market share in the Europe's neighbouring countries. We have considered trade flows for different types of products so as to gain an insight into the quality of the trade relationship. Lastly we have examined geographical and sectorial concentration in trade flows in order to analyse to what extent ENCs' trade structure is vulnerable to shocks.

KEY-WORDS: European Neighbouring Policy; Trade flows; Export concentration
JEL: F13, F14

The geography of trade relations between the EU and the ENP countries: Empirical analysis and implications for theory and policy-making

SEARCH Working Paper, 2/03.

ARTELARIS PANAGIOTIS[1], KALLIORAS DIMITRIS[2] PETRAKOS GEORGE[3] & TSIAPA MARIA[4]

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ABSTRACT

The European Neighborhood Policy (ENP), launched in 2004, is a unified European Union (EU) policy framework towards the EU neighboring (ENP) countries. The objective of the ENP is to strengthen the prosperity, stability and security of the (enlarged) EU countries and the ENP countries. Even though the ENP is distinct from the process of EU enlargement, the ENP countries operate under conditions of "neighbourhood Europeanization". The paper studies the geography (i.e. the size, the composition and the direction) of trade relations (i.e. imports and exports flows) between the EU and the ENP countries, conducting an in-depth empirical analysis and providing empirically-based responses to a series of research questions: What is the size, the composition and the direction of trade activity between the EU and the ENP countries? What changes, if any, can be recorded, diachronically? What is the impact on the trade balances of the EU and the ENP countries? What is the pattern of integration between the EU and the ENP countries? Which theoretical school tends to be confirmed? Is there evidence of "developmental gap"? What are the implications for the prospects of income convergence, in the long-term? Is it possible to detect (trade) relations of dominance among the EU and the ENP countries? Is there a corresponding distinct spatial footprint? Is it possible to acquire new knowledge and critical insight on the issues of EU integration? Providing a clear picture regarding the geography of trade between the EU and the ENP countries (the EU-ENP trade), the paper aspires to offer valuable insight to both (economic integration) theory and policy-making.

KEY-WORDS: geography, trade, EU countries, ENP countries
JEL: F13, F14, F15

Relatedness and diversification in EU and ENP countries
SEARCH Working Paper, 2/04.

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Abstract

In this working paper we analyze the degree of relatedness between export products based on co-occurrence analysis (Hausmann & Klinger, 2007). We use the BACI Dataset (an elaboration from UN Comtrade Data), since it guarantees ample coverage of ENP countries over time, at the 4-digit classification level. Our results show that in both EU and ENP countries the evolution of the export mix is strongly path-dependent: countries tend to keep a comparative advantage in products that are strongly related to their current productive structure, and they also diversify in nearby products. However, this effect is much stronger for ENP countries, signalling their lower capabilities to diversify in products that are not very near to their productive structure. Moreover, we also show that the future exports structure of countries is affected by imports: both EU and ENP countries keep a comparative advantage in products that are strongly related to their imports, but only EU countries show also evidence of learning to diversify in new products from related import sectors.

KEY-WORDS: diversification; relatedness; European Neighborhood Policy; trade
JEL: F19, O14, O33

Trade activity between the EU and the ENP countries: A "Reproduction" of the "Core-Periphery" pattern?

www.ub.edu/searchproject

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ABSTRACT

The European Neighborhood Policy (ENP), launched in 2004, is a unified European Union (EU) policy framework towards the EU neighboring (ENP) countries. The ENP aims at strengthening the prosperity, stability and security of the EU and the ENP countries. Even though the ENP is a distinct and separate process from the EU enlargement, the ENP countries operate under conditions of "neighborhood Europeanization". This means that despite the fact that the proper "membership anchor" is missing, the progressive compliance with the *acquis communautaire* is a necessary condition for the ENP countries to increase their "weight" on the EU market. This is so, since according to the Treaty of Lisbon, forced in 2009, EU policies with a bearing on relations to third countries (such as the ENP countries) should be guided by a common set of principles and objectives such as the consolidation and support of democracy and the preservation of peace. Within this framework, and through the estimation of the DK Index, the paper supports that the trade component of the ENP contributes to the "reproduction" of the well-established "core-periphery" EU spatial pattern of development in the wider EU area (i.e. the EU and its neighborhood).

KEY-WORDS: EU-ENP trade, "core-periphery" pattern, DK index
JEL: F13, F14, F15

The Geography of trade relations between the EU and the ENP countries: Emerging patterns and policy recommendations

SEARCH Working Paper, 2/07.

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ABSTRACT

The EU launched the European Neighborhood Policy (ENP), a unified policy framework towards its neighboring countries, aiming at strengthen the prosperity, stability and security around its political borders. The present paper studies the trade component of the ENP, conducting an in-depth empirical analysis of the geography of the EU-ENP trade relations (i.e. the size, the composition and the direction of exports and imports flows). Providing clear-cut, empirically-based, responses to a number of critical research questions, the paper offers valuable insight to both economic integration theory and policy-making. Overall, the findings of the paper indicate that the EU-ENP trade relations have been evolved in a rather uneven, unbalanced and asymmetric way. Thus, the EU should examine the possibility that mandatory *acquis communautaire* compliance related to political requirements should not be a precondition for trade negotiations (and agreements).

KEY-WORDS: geography, trade, EU countries, ENP countries
JEL: F13, F14, F15

The determinants of trade activity among the EU and the ENP countries

SEARCH Working Paper, 2/08.

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ABSTRACT

Within the framework of the European Neighborhood Policy (ENP), the EU neighboring countries (the ENP countries) operate under "neighborhood Europeanization" conditions, tantamount to economic integration. Within this framework, the objective of the paper is to detect the determinants of exports flows from the ENP countries to the EU countries, and, moreover, to indicate whether significant irregularities in the geographical direction of exports flows from the ENP to the EU countries, if they exist, have any implications for the economic performance of the ENP countries. On the basis of the results derived from a gravity model, the paper estimates a Coefficient of Irregularity in the Geographical Direction of Exports Flows (CIGDEF) in order to measure the degree to which the direction of exports flows from the ENP to the EU countries is diverging or is different from that predicted by the gravity model equation. Plotting the figures of the CIGDEF against the figures of the ENP countries' per capita GDP, the paper detects the possible implications of geographical irregularity for the economic performance of the ENP countries. The findings of the paper indicate that high levels of GDP and population, in the ENP and the EU countries, low distance, low income differences, common land borders and colonial relations in the past are among the factors favoring the increase of exports from the ENP to the EU countries. The latter, however, exhibit, in many cases, significant geographical irregularities in the sense that there significant differences between the actual and the expected (fitted) exports flows. By and large, such irregularities have a negative, though not strong, impact on the ENP countries' economic performance.

KEY-WORDS: gravity model, trade, ENP countries, EU countries
JEL: F12, F14, F15

Mind your step: The heterogeneous effect of relatedness and diversification process in EU and ENP countries

SEARCH Working Paper, 2/09.

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[1] CIRCLE, Lund University
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Abstract

In this working paper we analyze the degree of relatedness between export products based on co-occurrence analysis (Hausmann & Klinger, 2007). We use the BACI Dataset (an elaboration from UN Comtrade Data), which guarantees ample coverage of ENP countries over time, at the 4-digit classification level. Our results show that in both EU and ENP countries the evolution of the export mix is strongly path-dependent: countries tend to keep a comparative advantage in products that are strongly related to their current productive structure, and they also diversify in nearby products. However, this effect is much stronger for ENP countries, signalling their lower capabilities to diversify in products that are not very near to their productive structure. Moreover, we also show that the future exports structure of countries is affected by imports: both EU and ENP countries keep a comparative advantage in products that are strongly related to their imports, but only EU countries show also evidence of learning to diversify in new products from related import sectors.

KEY-WORDS: diversification; relatedness; European Neighborhood Policy; trade
JEL: F19, O14, O33

The European firms' export activity to the neighbouring countries

SEARCH Working Paper, 2/10.

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Abstract

The main goal of this paper is to study empirically the export decisions of the European firms and to explore their international activities to the European Neighbouring Countries (ENCs). We want to investigate which are the main characteristics, behaviours and strategies of European firms that export to and invest in one or more ENCs, in order to single out at the national level (data are not available at the regional level) which are the location determinants of European investments and trade patterns. Since data by destination are very aggregated, we concentrate our analysis on exporting flows for which data are much more detailed, and starting from this we explore which are the main European exporting destinations and investigate on the intensive and the extensive margin. To achieve our aims we use the EFIGE dataset on European firms including seven European countries and referring principally on 2008 firms' budget and position.

Integrating the Neighbors: A dynamic panel analysis of EU-ENP trade relations

SEARCH Working Paper, 2/11.

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Abstract

This paper investigates the impact of the trade relations among the EU and the European Neighborhood Policy (ENP) countries on the economic growth performance of the latter. The analysis uses panel data for 14 ENP countries over the period 2000-2011 and recently developed panel cointegration techniques to test and estimate the long-run equilibrium relationship between real GDP and trade openness indicators. The results of the analysis indicate that deeper trade integration with the advanced EU countries may have a negative impact on ENP countries GDP growth. At the same time, deeper trade integration with the middle and lower income EU member states appears to have a positive and statistically significant impact on real GDP of the ENP countries. The results also indicate that, under existing production capabilities, economic growth in ENP countries favours weaker trade integration with the advanced EU12 countries and deeper trade integration with the middle and especially the lower income EU countries. These findings have important implications for theory and policy.

KEY-WORDS: trade openness, growth performance, EU countries, ENP countries, panel cointegration, Granger causality, Panel VAR
JEL: F14, F15, F43

Task 2.2.: Capital mobility among EU and neighboring countries

Location choices of multinational companies in transition economies: A literature review
SEARCH Working Paper, 2/05.

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Abstract

This paper explains the location choices of multinational companies (MNCs) in a transition economy by institutional quality, proximity, and traditional economic factors. Based on a thorough theoretical framework the paper contributes to the literature on MNCs and location choices by introducing an analysis of institutional determinants at the regional level within a transition economy perspective which has not gained sufficient attention in existing research. The paper also introduces a set of hypotheses for testing empirically the location choices of MNCs in Ukraine on the basis of the results of the enterprise survey held in the three regions of Ukraine.

KEY-WORDS: Location determinants, FDI, multinational company, transition economy, enterprise survey
JEL: D23, F21, F23, R11

MNEs location decisions in EU neighbouring countries and economic institutions.

SEARCH Working Paper, 2/12.

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Abstract

This paper investigates how the location behaviour of Multinational Enterprises (MNEs) is shaped by recipient countries' economic institutions. These include Governament Size, Legal System & Property Rights, Sound Money and Market Regulation. By employing data on individual investment projects undertaken from 2003 to 2008, the study examines the location strategies of 6,905 European MNEs into a set of 23 countries, which include European New Member States, accession and candidate countries, European Neighbourhood Policy countries, and the Russian Federation. From a methodological point of view, the paper firstly implements standard Conditional and Nested Logit models, while, in a second step, the analysis benefits of the advantages associated with random-coefficient Mixed Logit. The latter allows unbinding the estimation from restrictions associated with IIA as well as evaluating MNEs heterogeneous preferences over location attributes. Results appear to be robust across different sample specifications and methodologies.

KEY-WORDS: Economic Institutions; Location Choice; Multinational Enterprises, Mixed Logit
JEL: F23, P33, L20, R30

Origin of FDI and domestic productivity spillovers: does European FDI have a 'productivity advantage' in the ENP countries?'

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Abstract

The process of approximation between the EU and its 'eastern neighbourhood' has created conditions for deepening economic interactions and market integration, giving to the EU –and to EU businesses– an elevated role in the process of economic modernisation and transition in the neighbourhood countries. This raises the question as to whether European business activity in these countries produces indeed measureable economic advantages both in absolute and in relative terms (e.g., compared to business activity from other parts of the world). Similarly, a question arises as to whether European business activity reduces or amplifies spatial imbalances within the partner countries. This paper examines these issues for the case of capital flows (foreign ownership) and the related productivity spillovers, using firm-level data from the Business Environment and Enterprise Performance Survey (BEEPS) covering 28 transition countries over the period 2002-2009. We estimate the direct and intra-industry productivity effects of foreign ownership and examine how these differ across regional blocks (CEE, SEE and ENP), according to the origin of the foreign investor (EU versus non-EU), across geographical scales (pure industry versus regional spillovers) and for different types of locations (capital-city regions versus the rest). Our results suggest that FDI of EU origin plays a distinctive role in the countries concerned helping raise domestic productivity significantly more than investments from outside the EU. However, this process appears to operate in a spatially selective manner, thus enhancing regional disparities and spatial imbalances. This, then, assigns a particular responsibility for EU policy, as it continues to promote economic integration (and FDI flows) to its eastern neighbourhood, to devise interventions that will help redress these problems.

Location choices of multinational companies in Ukraine

SEARCH Working Paper, 2/14.

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Abstract

This paper explains the location choices of multinational companies (MNCs) in a transition economy by traditional economic factors and institutional quality. Based on a thorough theoretical framework and a set of hypotheses, empirical data of an enterprise survey of 153 foreign firms in three regions of Ukraine is analyzed. The data contains information on location choice of MNCs, assessment of institutional quality, and embeddedness within the regional economy. The paper contributes to the literature on MNCs and location choices by introducing an analysis of a set of foreign direct investment (FDI) location choice determinants at the regional level within a transition economy perspective, which has not gained sufficient attention in existing research.

KEY-WORDS: Location determinants, FDI, multinational company, transition economy, enterprise survey
JEL: D23, F21, F23, R11

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Impacting innovation behaviour of foreign and domestic firms: the case of Ukraine

SEARCH Working Paper, 2/15.

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Abstract

The aim of the paper is to investigate the factors impacting innovation performance of foreign-owned and domestic firms in three regions of Ukraine. Special attention is laid on the inter-firm cooperation between domestic and foreign-owned firms, their absorptive capacity and the role of the local institutional environment in selected regions of Ukraine, namely close to the Western border Lviv region, close to the Eastern border Kharkiv region and the capital region Kyiv. Foreign firms are the subsidiaries of multinational enterprises (MNEs) located in the target regions of Ukraine. An enterprise survey of 305 domestic and 153 foreign firms within two sectors, i.e. machinery and equipment sector and food and beverages sector, was conducted in these regions. The paper empirically analyzes the primary data of the enterprise survey, with the focus on the assessment of the innovative performance of survey firms. The impact of such factors as absorptive capacity of survey firms, the way foreign and domestic firms cooperate and their perception towards local institutional quality on the innovation behaviour of firms is analyzed. The paper introduces a thorough conceptual framework together with a detailed discussion of the empirical results, followed up by some policy implications.

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Deliverable 2.2. Complete report on patterns of economic interaction between the European Union and its neighboring countries

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Task 2.3.: Spatial implications of integration and expansion of capital flows in and out of the EU borders

Regional Inequalities in the European Neighbourhood Countries: The Effects of Growth and Integration

SEARCH Working Paper, 2/16.

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Abstract

This paper explores the spatial dynamics in the European Neighbourhood Countries (ENC) in a period of significant transformations in their internal and external economic environment. The analysis reveals a significant increase in regional inequalities and a dramatic increase of polarization in most of these countries. With the use of panel data for five ENC countries we investigate the drivers of spatial inequality taking into consideration the internal and external dynamics of the economies. The results of the model show that the Neoclassical (NC) convergence processes are counterbalanced by Cumulative Causation (CC) divergence dynamics and the spatially unbalancing effects of economic integration with the EU. Regional disparities are reported to be the net outcome of two opposite dynamics: a pro-cyclical pattern on the one hand, with dynamic and developed regions growing faster in periods of expansion and slower in periods of recession, and long-term spread effects on the other hand, partly offsetting the cumulative impact of growth on space after some critical level of development. In this framework, expanding trade relations with the EU advanced countries may be an additional source of spatially unbalanced growth, as the costs and benefits of integration prove to be unevenly allocated in space. To the extent that growth and integration dynamics tend to polarize the ENC economic space, a set of critical policy questions arise for the EU neighbouring policies and the ENC ability to design and implement effective regional policies.

The Effect of FDI on Regional Inequality in the ENPs; Evidence from Israel

SEARCH Working Paper, 2/17.

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Abstract

FDI is an important source of capital for the ENPs. This paper investigates whether FDI polarizes regional inequality in host counties. In the absence of regional FDI data we propose a method for estimating the effects of FDI on regional inequality. An empirical application of this method is presented for Israel. We use time series data to show that regional capital stocks vary directly with the stock of national FDI and other variables, and that the sensitivity of regional capital stocks to FDI varies by region. We use regional panel data to show that regional wages vary directly with regional capital-labor ratios. In this way a link is established between FDI and regional wages via regional capital. Finally we decompose the factors driving regional wage inequality, as measured by the variance of regional wages. One of these factors is the polarizing effect of FDI on regional wages. Our results show capital stocks in the central (wealthier) regions of the country are more sensitive to FDI shocks. Also, the polarizing effect of FDI has increased absolutely during 1987-2010. However, it has decreased relatively; the contribution of FDI to regional wage inequality dercreased from 50 percent in 1987 to 30 percent in 2010. Policy implications of these findings are discussed.

KEY-WORDS: FDI, regional inequality, capital-labor ratio, panel data, ENP countries
JEL: C23, R12, R53