

## Практичне заняття 4 для ОП «МЕ»

Тема 5. Актуальні теми наукових досліджень у сфері міжнародної економіки на сторінках іншомовних видань (монографії, статті, періодичні видання)

**Завдання 1.** Прочитайте та перекладіть українською мовою анотацію статті International production networks and the world trade structure by Isabella Cingolania, Lelio Iapadre and Lucia Tajoli.

In this work, we examine bilateral trade data in two industries with different technological characteristics (textiles and apparel, and electronics) in order to detect the presence of international production networks in these sectors and to assess their structures and organization. Moving from the recent stream of literature that underlines the importance of assessing the participation and position of a country within an international production system, generally much more complex than a simple chain, we examine if these networks can be identified using traditional trade data and if they are still mainly regional.

We start by applying a particular specification of bilateral trade intensity indices to the matrix of world trade in each sector (from the BACI – CEPII database), using the BEC classification to distinguish between intermediate and final goods, in order to highlight trade flows driven by international production networks. We compute indicators for the world trade matrix and its regional partitions, as defined by exogenous geographical criteria, or by the existence of regional integration agreements. The resulting pattern of revealed trade preferences conveys useful information about the actual geographic distribution of the underlying international value chains.

The core of the paper is an application of network analysis to better understand the topology of global and regional value chains. In each industry, we identify endogenous geographical sub-networks based on preferential trade links, again distinguishing between trade flows in intermediate or final goods, and we examine the topological structure of the trading regions, to assess whether they are similar across industries and goods' categories, and if they are built around a central core country.

On the basis of both approaches, we conclude that trade regionalization is still high, especially in electronics, confirming that geographical proximity and other integration factors still play a role in facilitating international production and trade. However, regionalization has slightly declined in the recent past, and there are some relevant preferential linkages bridging different regions.

In addition, the topology of trade networks can indeed shed some light on the structure of the underlying production linkages. In particular, a stronger preferentiality and selection of partners seem to occur for trade in intermediate goods, as suggested by the theory of international fragmentation of production.

Знайдіть додатковий матеріал англійською мовою за вказаною в статті проблематикою. Які ще іноземні автори досліджували дану проблему? В чому полягає її актуальність?

**Завдання 2 для ОП «МЕ».** Прочитайте уривок статті Cross-border interbank contagion in the European banking sector by Silvia Gabrieli, Dilyara Salakhova. Перекладіть, знайдіть першоджерело, авторів, яких цитують у статті.

The 2007–2008 financial crisis revealed the fragility of financial institutions worldwide and the major role of interconnectedness among banks in the propagation of financial distress within a national banking system and cross-border. Analysis of cross-border contagion is rare and difficult due to the lack of data on cross-border bilateral exposures at a bank level. While largest European banks are exposed to their European counterparties as much as to the national ones, regulation till recently remained mostly national thus leaving regulators and policy makers with a fragmented view on the European banking system. This paper aims at filling this gap by investigating the scope for cross-border contagion in Europe at an individual bank level. We analyze geographical patterns of shock propagation between 73 European banking groups from end-2008 until end-2012, in the middle of financial and European sovereign crises.

Interconnections, in the form of bilateral contractual obligations, as well as exposures to common risk factors, have grown dramatically in the run-up to the crisis. While higher interconnectedness is a means of efficient risk transfer, it may also lead to contagious default cascades: an initial shock may propagate throughout the entire banking system via chains of defaults and liquidity shortages. In this paper, we rely on Fourel et al. (2013)'s model to assess the extent of interbank contagion across a set of European banks. Analyzing cross-border contagion at a bank level distinguishes our paper from a large literature on counterfactual simulations in networks (see Upper (2011) for a comprehensive survey) that either primarily focus on national banking systems or analyze contagion from one banking system to another at a country level. The model features both solvency and liquidity defaults. We focus on the distribution of simulation outcomes (number of default and total losses) resulting from a common market shock on (listed) banks' capital, coupled with an exogenous bank default; the distributions are obtained over a large number of exposure networks simulated from true long- and short-term exposure data. We construct heat maps to identify both the banking sectors that are the most "systemic", in terms of the losses that the failure of one of their banks can impose on foreign banks, and the banking sectors that are the most vulnerable to cross-border contagion from European counterparties.

We use a novel database of cross-border interbank exposures. These exposures are generally not available to researchers. National supervisors can have at best a partial view of the largest long-term credit claims of supervised banks via credit registers. To circumvent the unavailability of accurate information on domestic and cross-border interbank exposures, and obtain a realistic representation of how European banks are connected through their long- and short-term claims, we exploit for the first time a unique dataset of interbank money market transactions, with various maturities, estimated from TARGET2 payments data (see Arciero et al. (2013)). We use true bilateral exposure data to simulate a large number of realistic exposure networks, using the methodology proposed by Halaj and Kok (2013). More specifically, we, first, construct a probability map that reflects the intensity of bilateral loans in TARGET2 and then draw realizations from a distribution of networks given by this probability map.

Our results suggest the evidence for cross-border contagion with some aspects being particularly interesting. First, the overall average losses caused by a foreign bank default vary remarkably over time and over different banking sectors with cross-border contagion due to an average bank default remaining limited, not exceeding 8% of the affected system's capital and on average being about 1%. Second, despite high level of cross-country interconnections, domestic losses for many banking systems are more important than cross-border losses with average losses being about 2–4% and maximum losses reaching 15% of the system's capital. Third, some countries tend to be more systemic whereas others more fragile; however, these patterns may evolve over time. Finally, the development of the European crisis leads to retrenchment of cross-border activity and concentration of losses within a country; and, the potential for cross-border contagion decreases over time. This is particularly related to a generalized reduction in the share of long-term interbank loans in bank balance sheets, which can be interpreted as market fragmentation, and to an increase in banks' capitalization during these years, as compared to 2008. All in all, our findings underline the necessity to take into account cross-border interbank linkages at a bank level while analyzing the financial stability of a national banking system.

Further, we confirm findings in the literature that contagion is a tail risk: losses averaged over stress-scenario, initial bank defaults or simulated networks are rather limited; however, averaging conceals rare extreme events. We document that losses at the 95th percentile of the distribution can reach 22% of the system capital in 2008, and that the resilience of the system improves significantly over time. Moreover, this strong heterogeneity of losses depends to a large extent on the structure of interbank linkages. This is consistent with recent models of contagion in financial networks relying on simulated networks of exposures (see, Georg (2013) and Gai and Kapadia (2010)), and points to the need to account for the evolving nature of the web of interbank linkages when running contagion scenarios. This is the first paper, to our knowledge, to document this feature by simulating interbank exposures based on actual bank-to-bank data.

Знайдіть додатковий матеріал англійською мовою за вказаною в статті проблематикою. Які ще іноземні автори досліджували дану проблему? В чому полягає її актуальність?