



Centre for Economic and Regional Studies of the Hungarian  
Academy of Sciences – Institute of World Economics  
MTA Közgazdaság- és Regionális Tudományi Kutatóközpont  
Világgazdasági Intézet

**Working paper**

**219.**

**January 2016**

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**POST-CRISIS DEVELOPMENTS IN GLOBAL VALUE  
CHAINS - EXAMPLE OF FOREIGN  
INVESTORS' HUNGARIAN  
SUBSIDIARIES**

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Centre for Economic and Regional Studies HAS Institute of World Economics

Working Paper Nr. 219 (2016) 1–36. January 2016

## Post-crisis developments in global value chains - example of foreign investors' Hungarian subsidiaries

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ISSN 1215-5241

ISBN 978-615-5594-28-1



## Post-crisis developments in global value chains - example of foreign investors' Hungarian subsidiaries

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### Abstract

This paper investigates multinational corporations' (MNCs') organisational responses to the global financial crisis and the impact of value chain reorganisation on their Hungarian subsidiaries. We find that the global crisis has reinforced and intensified ongoing organisational reconfiguration trends and argue that crisis-prompted responses need to be separated from fundamental organisational transformation catalysed by the crisis. Strategic organisational realignment programmes have been driven by long-standing technological and market trends rather than by transient developments. Drawing on interview findings carried out at MNCs' manufacturing subsidiaries in Hungary, we show that MNCs' global reorganisation brought upgrading opportunities for local subsidiaries. Altogether, the surveyed Hungarian subsidiaries have benefitted from their owners' cost-cutting and restructuring actions: they were on the receiving end, as production activities were relocated to Hungary. Moreover, the necessity of task integration and of co-location-driven synergy effects have intensified subsidiaries' ongoing functional upgrading processes.

*JEL:* D23, F23, L22, F44

*Keywords:* crisis adaptation; organisational realignment, upgrading, manufacturing subsidiaries, Hungary

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### Acknowledgement:

This research was supported by the Institute of Economic Research of the Hitotsubashi University Tokyo. The author thanks Tammy Bickett for providing editorial assistance.

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## **1. Introduction**

Most contributions to the burgeoning scholarship on firms' strategic responses to the unprecedented shocks caused by the global financial crisis of 2008-2011 consider single firms as units of analysis. Scholars analyse corporate spending plans to identify the prevalence of reductions in tangible and intangible investment (Banerjee et al., 2015; Borisova and Brown, 2013; Guevara and Bonfour, 2013). Firms' labour-shedding behaviour is surveyed (versus the occurrence of counter-cyclical hiring strategy), and other channels of cost reduction are highlighted (Du Caju et al., 2015; Fabiani et al., 2015). The volume of production reduction is scrutinised (Gonchar, 2013), as well as changes in firms' export structure as a response to crisis (Bricongne et al., 2012). Further prominent research questions include the determinants of firms' survival in the face of economic and financial shocks (Godart et al., 2012; Iwasaki, 2014) and the evolution of firms' R&D budget during the crisis years, i.e. whether firms facing a sudden demand collapse reduce or increase their R&D efforts (Archibugi et al., 2013).

However, with global value-adding activities structured around global value chains (GVCs), firms' boundaries have become less definite than previously. New structures of business organisation have emerged, such as the global factory (Buckley, 2009). Flexible organisational solutions and new forms of task division have proliferated, making competition network based (Coe et al., 2008) rather than based on single actors who compete head-on with other actors. Consequently, the effective orchestration of a global network organisation has become an important factor of competitiveness in itself (De Marchi et al., 2014).

Therefore, besides scrutinising the actions implemented *within* individual firms as a response to crisis, it is also important to pay proper attention to their actions undertaken to reconfigure their global network organisations. These changes and the drivers thereof are especially interesting for actors in relatively underdeveloped economies, since the reorganisation of GVC orchestrators' value chains represent important upgrading opportunities for them, or, conversely, they might involve downgrading and even closure.

The objective of this paper is to contribute to the emerging literature (Knudsen and Foss, 2015; Manello and Calabrese, 2015) on the impact of the crisis on MNCs' global network organisations. More specifically, we investigate whether crisis-driven organisational realignment within large MNCs and their GVCs opens up additional upgrading opportunities for actors who specialise in activities represented at the bottom of the smile curve of value-added<sup>2</sup>, i.e. for MNCs' manufacturing subsidiaries.

The context of the investigations is Hungary, a small, open economy, whose modernisation and industrial upgrading has been driven mostly by the inflow of efficiency-seeking foreign direct investment (Csáki, 2001; Szanyi, 2001).

Drawing on interviews carried out at MNCs' manufacturing subsidiaries, we show that the crisis-triggered reorganisation of MNCs and their GVCs brought upgrading opportunities for local subsidiaries. We investigate the micro-mechanisms of value chain reorganisation and their impact on the Hungarian subsidiaries surveyed.

The paper is organised in 5 sections: section 2 provides a brief summary of the related literature, section 3 presents the research method and the sample of the companies that we interviewed, section 4 reviews and discusses the findings, and section 5 provides a summary and presents some limitations of our research.

## **2. Conceptual framework—organisational restructuring in turbulent times**

Studies focusing on MNCs' organisational responses to the radical contraction of market demand during the global crisis of 2008 originate partly in the strategy, structure, and performance paradigm described by Chandler (1962) and partly in the corporate restructuring literature that focuses on changes in firms' structure and processes (i.e. on organisational restructuring, along with financial restructuring and business portfolio restructuring—Bowman and Singh, 1993). This research stream is also associated with the dynamic capabilities literature (Eisenhardt and Martin 2000, Teece et al. 1997) since it involves the reconfiguration of firms' structures and the

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<sup>2</sup> Mudambi (2008) used the metaphor of *smile curve economics* following Shih (1996), to describe the relation between GVC specialisation (i.e. specialisation in specific activities along the value chain) and value added. The curve depicts the distribution of value-added at each stage of the chain. It makes obvious that production activities generate much less value-added than pre- and post-production types of service activities.

realignment of resources to meet the new requirements of a changing external environment (Karim, 2006).

The recently emerged GVC framework of analysis (see survey by Gereffi and Fernandez-Stark, 2011; OECD, 2013) has influenced almost all segments of the international business (IB) literature and has equally impacted the concept of business organisation. Recognising the decomposability and the geographic dispersion of tangible and intangible activities that, together, contribute to the creation and sale of products or services, and support to the end users, the unit of analysis of IB papers in general and of papers on MNCs' organisational responses to crisis in particular has been extended: from MNCs to GVCs. The quote by Contractor et al. (2010, p. 1418) highlights in an insightful manner the reason for this shifting focus:

*"The boundaries of many firms have [...] simultaneously shrunk organizationally and expanded geographically, while also becoming more permeable".*

GVCs are flexible and dynamic (constantly evolving) forms of business organisation. A conspicuous current trend in their evolution is geographic consolidation and organisational concentration (Buckley, 2009; Gereffi, 2014; Gereffi and Luo, 2014; Nolan et al., 2008). Lead firms rationalise their global supply chains and radically reduce the number of direct suppliers. Supplier firms that can survive this rationalisation wave are bigger and more powerful than average, which further augments the competitive pressures that peripheral actors face. Cattaneo et al. (2010) posit that the global crisis has accelerated this structural trend.

Most of the empirical papers that scrutinised MNCs' organisational and GVC-reconfiguration responses to the crisis have analysed the elimination of non-core activities through divestment (sale or closure of peripheral facilities) or through outsourcing. An example representing the regional context of our investigations is Pavlínek (2015). According to Pavlínek, there were only few divestments and plant closures in the automotive industries of the Czech Republic and Slovakia, but local subsidiaries (as well as domestically owned suppliers) faced enormous pressures to improve efficiency and reduce costs. Filippov and Kalotay (2011) present a comprehensive overview of MNC responses to the crisis in the new EU member states. They found that responses were heterogeneous: they included both contraction

(reorganisation of the production system, downsizing, and partial closures) and expansion (relocation of additional production), together with functional upgrading (relocation of advanced functions to facilities in new member states).

Another crisis-driven organisational change under scrutiny was the relocation of some operations offshore. This response was often analysed together with actions moving in the opposite direction: the insourcing or reshoring of previously outsourced/offshored operations (Boyle and McDonnell, 2013; Kinkel, 2012; Knudsen and Foss, 2015; Tate, 2014). With respect to MNCs' decisions to outsource or, conversely, increase the vertical integration of activities, in response to recessionary shocks, the evidence is mixed. Boyle and McDonnell (2013) posit that increased offshoring/outsourcing is characteristic mainly of MNCs originating from liberal-market economies. Knudsen and Foss (2015) found evidence for both increased and reduced vertical integration. Conversely, drawing on the analysis of a large sample of German manufacturing companies, Kinkel (2012) conjectures that, while relocation activities declined significantly since the emergence of the global economic crisis, the level of backshoring has remained stable. Kinkel also found that far-shore destinations in Asia have become preferred over near-shore locations in Eastern Europe. Kinkel's findings are in line with literature that documents the consolidation and concentration of value chains: he found that export-intensive German companies started to reconcentrate their production capacities.

A few papers are concerned with other aspects of crisis-driven organisational change. Drawing on the experiences of eight large industrial companies in France Laperche et al. (2011) found that crisis prompted these firms to enhance their commitment to open innovation, i.e. engage in more innovation collaboration with external actors: suppliers, customers, universities, and academic research centres—and even with competitors. Rugraff and Sass (forthcoming a; b) investigated the factors that determine firms' reaction to crisis (in terms of relocation and retrenchment or, conversely, in terms of counter-cyclical investments and acquisitions aimed at strengthening their market position). Drawing on field interviews with Hungarian automotive suppliers, they found that size, structure, and network embeddedness influence firms' strategic choices in turbulent times. They posited that the relocation of production to even lower-cost

locations was not characteristic in the context of foreign-owned facilities operating in Hungary: a number of 'keep factors' locked automotive investors in their Hungarian location.

Crisis-related economic geography papers suggest that besides revising their past collaboration strategies, MNCs also revise their location strategy in an effort to adapt to global shocks. Setting up an encompassing model of organisational responses to the crisis, Fromhold-Eisebith (2015) distinguished between (a) *market reorientation*, implying the restructuring of distribution channels and resources re-allocation: strengthening the manufacturing facilities that are in regions with promising end markets and, conversely, reducing investment in facilities operating in crisis-hit regions; (b) *value chain optimisation*, implying the reorganisation of supplier and outsourcing relations; (c) *strategic reorganisation*, including mergers and acquisitions, sale of corporate branches to others, and strategic alliances with partners and/or competitors; (d) *innovation and upgrading-focussed strategy*, implying the strengthening of R&D-oriented and upgraded corporate branches and the shift of R&D and/or of other high value-adding tasks to these units; (e) *relocation of production* including site closures and the concentration of mandates in selected low-cost locations and/or the opening of new plants in low-cost locations; and, finally, (f) *transformation of the entire production landscape*, which includes steps as diverse as exiting selected markets, changing the operational focus, and establishing new enterprises.

Papers examining MNCs' organisational reactions to the crisis, from the perspective of a host country or peripheral subsidiary in general and in a Central and Eastern European (CEE) context in particular, are mostly concerned with items (b), (d) and (e) from the list above. These items—although they are, to some extent, overlapping—are most relevant for the CEE region. Most of the papers emphasise the upgrading possibilities that the crisis-triggered restructuring of GVCs opened up for local actors (Domański et al., 2013; Sass and Szalavetz, 2013; Sturgeon and Kawakami, 2011; van Tuijl, 2014). Upgrading occurred partly as a consequence of MNCs' pressure to reduce costs and improve efficiency (Pavlínek, 2015) and partly as a result of MNCs' increasing delegation of more advanced functions to their local subsidiaries (Sass and Szalavetz, 2013).



However, according to Schuh's (2012, 2013) persuasive arguments, scenarios suggesting that successful upgrading products, processes, and functions will contribute to the CEE-based subsidiaries' upgraded position within GVCs (e.g. their becoming regional headquarters) are becoming less likely. Lead firms would rather reconsider the organisational model they adopted for CEE countries: they no longer consider the region as a homogeneous bloc. Instead, they increasingly differentiate among CEE countries, assessing them according to the opportunities the individual countries and the given subsidiaries can offer. Schuh (2013) posited that the relatively large autonomy enjoyed by the management of existing CEE headquarters (HQ) will radically decline, due to crisis prompted group-level centralisation.

### **3. Research method and sample**

Since the objective of this paper is to open the black box of organisational processes and study them as they unfold over time, multiple case study-based exploratory research was considered the most appropriate method of investigation (Doz, 2011; Eisenhardt 1989). An interview guide containing predominantly open-ended questions (see the Annex) allowed interviewees to provide rich descriptions of complex, multifaceted processes: to speak about the real-world phenomena of crisis-driven organisational transformation and the impact thereof on the surveyed manufacturing subsidiaries. The interviews, 60 to 90 minutes in length, were conducted between September and November 2015. Interviewed managers were, in most cases (N = 11), CEOs of Hungarian subsidiaries, in two cases, divisional leaders were interviewed. To preserve anonymity, neither corporate names nor main products will be specified.

In the process of sample selection we applied a purposeful sampling method (Patton, 1990). Our aim was to select information-rich cases: companies whose insights draw on a multiplicity of experiences, i.e. companies whose cases promise observations about issues of central importance to our research. For this sake, we opted to select local manufacturing subsidiaries of large MNCs that had been operating in Hungary for at least a decade at the time of the interview.

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Altogether, our sample consists of thirteen manufacturing subsidiaries of American, Danish, German, and Swedish MNCs operating in the automotive (2), automotive electronics (3), electronics (4), and machinery (4) industries. On average, these companies had been operating in Hungary for more than 20 years at the time of the interview. They exhibit strong upgrading performance in terms of both products and processes. Moreover, a number of advanced functions have been moved to the local facilities, including R&D (nine companies have R&D departments), process engineering and testing, software development, procurement, repair, logistics, and distribution.

The average number of employees of the surveyed MNCs was 99,700 in 2014, (employment at four companies was below 10,000, and six MNCs had more than 100,000 employees). The average number of employees of the Hungarian subsidiaries in 2014 was 1,920. The average global turnover was EUR 24.1 billion in 2014.<sup>3</sup> As for the surveyed Hungarian subsidiaries, the average net sales amounted to EUR 608.6 million. The importance of the surveyed Hungarian subsidiaries, considered in terms of their contribution to their parent companies' total production and/or total revenues, is heterogeneous: some are listed among the largest production facilities of their mother companies, contributing to 15 to 23 % of total turnover, while others account for a mere 0.2% of total sales. The surveyed Hungarian companies are highly export oriented: the average share of exports to total sales amounts to 82.8%.<sup>4</sup>

When selecting the sample, we immediately faced the problem of respondent bias. In line with global developments with respect to the average tenure and turnover of executives (average tenure shows a continuous decline and CEO turnover increases—Schloetzer et al., 2015), in Hungary it was also difficult to find large local subsidiaries with interviewed managers all in the same managerial position already during the crisis years. In our sample only six managers out of 13 would fulfil this requirement. Neither were all interviewed managers in the same firm seven or eight years prior the interview:

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<sup>3</sup> This average masks large differences. Four companies had net sales below EUR 1 billion. The turnover of three companies ranged between EUR 1 billion and 10 billion; five companies accounted for net sales between EUR 10 billion and 100 billion, and the revenues of one MNC exceeded EUR 100 billion.

<sup>4</sup> In reality, the share of exports is even higher, since, in some cases, a substantial share of 'domestic sales' is delivered to an independent legal entity partner subsidiary of the same MNC in Hungary or to an independent legal entity distribution centre of the headquarters (located in Hungary). These products will presumably be exported as well; however, exports are accounted for by the given intermediary entity and not by the company in the sample.

only 11 out of 13. Interestingly, the two 'newcomer CEOs' worked previously (during the crisis years) at another firm in our sample. Nevertheless, all interviewed managers confirmed, they had sufficient information about firm-specific developments during and after the crisis years. Moreover, we believe the quality of the respondents compensates for the occasional lack of their personal experience in the given position.

The first couple of questions were intended to set the context and collect information about the multiplicity of crisis-driven organisational transformation processes that affected the organisation of the surveyed firms' value chains. The core part of our questions investigated the impact of these changes on the subsidiary's mandates and responsibilities.

In line with the framework proposed by Doz (2011), we ensured internal validity through three measures. First, we tried to control for factors that may distort the causality of the arguments. The restructuring of GVCs, including developments such as network consolidation, establishment of shared services centres (SSC), relocations, divestments, and outsourcing, may be the outcome of 'normal' organic development, or they may take place as a response to the crisis. In an effort to distinguish between outcomes of organic evolution and organisational changes that were prompted by the perceived environmental turbulence, we asked our interviewees again and again to confirm whether the specific organisational transformation action they recounted was a reaction to the crisis.

Second, we applied a constant comparative method in which each case helps to confirm or reject the insights emerging from previous cases (Glaser and Strauss, 1967). Third, we relied on both primary and secondary sources of information and triangulated the findings to maximise reliability. In addition to interview information, we collected secondary data about both the interviewed subsidiary and its mother company, such as annual reports, corporate information, press releases, newspaper articles, balance sheets, and notes pertaining to the financial statement.

Construct validity was ensured through systematic cross-case analysis, which allowed us to look at the identified commonalities from multiple angles (Yin, 2003). This facilitated analytical generalisation, while cross-case analysis helped to identify the contingent limitations of our research method.

Cross-case analysis was assisted by a predetermined technique of making case study notes and dedicating some time at the end of each interview to reviewing the chief findings, and asking interviewees to identify additional issues that they perceived to be relevant and important, that were missing from the interview. External validity (Gibbert et al., 2008) was enhanced also by sending the draft paper to the interviewed managers for approval and feedback. The question we particularly emphasised in the cover letter that accompanied the draft paper was whether the interviewed managers considered the general statements formulated as key findings of the interviews as ones that adequately generalise the issues raised by them and/or by their peer interviewees. Focussed feedback helped us improve analytical rigour, and, at the same time, it enhanced the cross-sectional validity of the arguments.

## **4. Findings and discussion**

### **4.1 Continuous and evolutionary organisational changes**

The MNC owners of the sample companies implemented a great number of organisational changes before, during, and after the crisis. These changes included targeted acquisitions, establishment of new subsidiaries (both manufacturing facilities and sales companies), the divestment, and sale of business lines, supply-chain optimisation, and the relocation of activities (Table 1). Over time, GVC-orchestrating mother companies have increasingly relied on strategic partnerships; in addition to acquisitions implemented to access specific technological expertise, they have forged strategic alliances with partners and/or competitors.

**Table 1**

**Examples of organisational changes implemented by owners of sample companies over the period between 2007 and 2014**

Firm	Examples of actions intended to reconfigure the MNC's organisation
1	<p>Announcing and implementing a global cost and efficiency programme;                      Acquisitions and divestments—acquiring more than 20 companies operating in the same or in adjacent technological areas; discontinuing selected business lines; selling shares in a joint venture;                      Outsourcing of the IT-support function; relocating regional research centres operating in Italy and the UK;                      Establishing new corporate R&amp;D centres; establishing a corporate ICT centre;                      Forging new strategic partnerships;                      Gradually shifting to a new, service-centric business model.</p>
2	<p>Rationalising production and support processes; relocating selected operations; merging selected group companies;                      Strengthening regional functions—concentrating finance, sales, marketing, and PR functions in selected regions; establishing a regional HQ in China;                      Centralising procurement activities; establishing SSCs;                      Establishing new companies in two continents; establishing new sales offices; establishing a new research centre;                      Strengthening the synergy among existing research centres, establishing new partnerships with universities;                      Establishing partnerships with other companies for jointly developing new solutions.</p>
3	<p>Implementing a cost-cutting programme, implying adjusting the level of staffing; selling stakes in a company; merging two subsidiaries;                      Accessing new fields of business through targeted acquisitions; opening new plants worldwide; signing new joint venture agreements; expanding production facilities in selected promising markets; opening a new corporate development centre, new regional service centres, and new distribution centres; establishing a strategic partnership for joint development.                      Establishing new HQ in Brazil.</p>
4	<p>Disposing of selected previous investments; amalgamating operational facilities, merging two subsidiaries; selling shares in a number of companies;                      Acquiring and developing a new business area; taking over an insolvent competitor;                      Withdrawing from a previously established business area;                      Relocating logistics and other technical functions to the Hungarian subsidiary;                      Establishing a new R&amp;D centre in Hungary;                      Relocating the procurement of inputs related to the activities of the Romanian subsidiary from Hungary to Romania.</p>
5	<p>Filing for bankruptcy protection in 2007, instigating a major reorganisation from 2008–2010, e.g. liquidating the production facility and the engineering centre in Poland, relocating to Hungary, closing one of the Hungarian sites, and relocating production to China, Korea, and the other Hungarian site; reducing capacity; relocating operations from the USA to Mexico; consolidating distribution centres; closing warehouses;                      Issuing initial public offering (NASDAQ).</p>
6	<p>Simplifying the portfolio: disposing of and selling non-core businesses; closing a number of facilities;                      Acquiring selected suppliers for the increased vertical integration and control of critical parts;                      Acquiring companies to expand into existing and adjacent technology areas;                      Reshoring production from China and Mexico to the USA; backshoring part of IT from India to the USA;                      Creating a new HQ of a business division in the USA; launching a new regional headquarters in China;</p>

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	<p>Creating a separate regional unit for Central and Eastern Europe within the 'Europe, Middle East, and Africa' regional market area, in an effort to provide more customer-tailored offerings;          Changing the business model from that of a broad conglomerate to that of a company more focussed on selected business lines;          Reducing the weight of the financial services division;          Simplifying the organisation by unifying technology centres related to individual industry segments into one global research centre; establishing other new global functional units;          Focusing on cross-segment synergy through collaboration and capability sharing;          Establishing new partnerships with local actors in large markets and with global players with complementary capabilities.</p>
7	<p>Selling selected business segments;          Completing targeted acquisitions;          Purchasing all shares in a number of joint ventures (over a period of eight years); disposing (selling) of stakes in selected joint ventures;          Concentrating the number of SSCs, e.g. centralising and standardising the finance and accounting function in a small number of specialised SSCs; centralising and standardising the procurement of indirect inputs;          Renaming selected business divisions to better reflect the firm's capacity to offer integrated solutions;          Forming strategic alliances with competitors; expanding to an adjacent business area that develops key enabling technology for all business divisions; enhancing cross-divisional collaboration; creating new central functional departments; establishing new sales and distribution centres to reinforce global presence; opening new regional HQs in Singapore and China; establishing local development centres in promising markets that host production facilities; establishing dedicated independent teams to enter new business areas or implement pilot projects; establishing internal start-ups related to new business areas.</p>
8	<p>Announcing a restructuring (retrenchment) programme; concentrating SSCs; selling stakes in selected companies; relocating to low cost areas;          Making major acquisitions; exiting from specific businesses;          Expanding in new business areas; repositioning through discontinuation in some areas;          Reclassifying of and merging reporting units; establishing new global functional units;          Simplifying by reducing the number of data centres;          Concentrating responsibility for Southeast European sales in Hungary; decentralising the sales function to the individual Southeast European countries;          Splitting the global company into two independent global companies.</p>
9	<p>Restructuring to align capacity to changing global demand: changing the number and location of production facilities; relocating to low-cost locations (e.g. to Hungary and further relocation of some production from the Hungarian facility to Ukraine);          Reclassifying business segments and reducing their number from three to two; expanding global production facilities;          Selling the aftermarket segment; selling controlling financial interests in specific subsidiaries;          Making acquisitions and expanding in new business segments.</p>
10	<p>Restructuring and reducing costs through a variety of measures, including the revision of internal processes, relocations, and market segmentation; closing a location in France and selling another French facility;          Creating a new chief executive position—chief operating officer responsible for restructuring and organisation;          Turnaround: expanding regionally in BRIC and also global expansion; opening subsidiaries in locations where markets were previously served only by agencies; founding new corporate R&amp;D units; opening a new training centre;          Growing through targeted acquisitions; expanding in new market segments;          Standardising processes; harmonising and standardising the corporate enterprise resource planning (ERP) system;          Partnering strategically with Microsoft for integrating Internet-of-Things solutions in specific products.</p>

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11	Consolidating plants in the USA—closing a production facility and relocating to Mexico and Hungary; Growing through the organic expansion of all facilities and through targeted acquisitions; Transitioning from a product-focussed to a solutions-oriented company; Establishing a regional sales centre in Hungary; relocating a number of support functions from Germany to Hungary.
12	Creating a new governance structure—decentralised operation management; centralised strategic management; redefining role processes and reporting lines; combining functions performed locally in global SSC units; Implementing a cost-cutting and efficiency programme; Optimising the portfolio: reducing volatile and underperforming businesses in the group's portfolio by discontinuing operations and divesting in a number of business areas; reducing the number of legally independent companies in the group; Making acquisitions; diversifying and expanding in growth areas; reclassifying main segment areas; managing active portfolios; Developing strategic partnerships and research partnerships; Collaborating cross-divisionally; Introducing unified IT infrastructure; harmonising data and processes; Increasing customer focus by creating key account manager posts.
13	Implementing a cost-cutting and restructuring programme; reducing capacity; closing and liquidating selected plants/companies; relocating activities; discontinuing selected business lines; selling subsidiaries and business lines; dissolving a joint venture; Diversification: increased reliance on business segments that are less hard hit by the crisis; Making acquisitions and expanding in new market segments and growth regions; opening new regional headquarters in China and the USA; establishing new joint ventures; establishing new R&D facilities in high-growth regions; concentrating R&D in three global hubs (plus China); Creating new business divisions responsible for new business areas; Increasingly emphasising localisation (e.g. relocation of R&D and procurement to facilities in high-growth regions).

Source: interview information and corporate annual reports

According to both our informants and the annual reports of the multinational owners, almost every year, these businesses made acquisitions, opened new plants, established new regional functional business units (such as service centres, distribution centres, test centres, and development centres), established new joint ventures, and purchased/sold shares in existing joint ventures. The divestment and sale of non-core business lines or of previously established subsidiaries were also salient occasional examples of firms' quasi-continuous recombination of resources and reconfiguration of structure.

Organisational changes included:

- (a) relocating production;
- (b) occasionally closing selected (few) facilities;
- (c) dismantling (selling) underperforming or non-core business lines;
- (d) restructuring, consolidating, and optimising the R&D function, involving both decentralisation and centralisation steps: relocating some production-related

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development and engineering activities to the premises of low-cost operation facilities, establishing new regional R&D centres, concentrating R&D activities by eliminating divisional overlaps; creating global R&D centres;

- (e) restructuring and optimising the procurement function;
- (f) outsourcing/offshoring business functions while insourcing/reshoring other functions;
- (g) reclassifying business divisions, including changing the reporting structure;
- (h) establishing (additional) SSCs and/or concentrating the number of existing SSCs;
- (i) developing new business lines, partly in an effort to diversify the business and customer portfolios and reduce excessive dependence on selected industries/customers;
- (j) expanding in promising geographical areas (opening new production facilities) and/or establishing new distribution centres; establishing new regional headquarters.

Organisational changes have been driven by two contradictory forces, both of which can be observed at practically every company interviewed. The first factor that drives changes is the quest of mother companies to simplify the organisational structure, to enhance its coherence, and to improve the efficiency of resource allocation. The second factor is the perceived necessity of establishing an organisational imprint of new corporate initiatives and of newly-decided strategic directions. Driven by the ambition to increase stockholders' value, maximise scale, improve efficiency, and increase returns, large blue chip MNCs come up with new business ideas and initiatives every year. Most of these initiatives have organisational implications as well. Together, these developments account for MNC organisations (and their GVCs) being in a constant state of flux. The accounts of two informants provide an illustration.

*'We launched our excellence programme just before the crisis to harmonise the diverse management models of our business units into one common corporate excellence model. Since then, the programme has been refined and extended each year to include various group-wide 'campaigns' focusing among others on process improvement and process*



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*standardisation, the standardisation of product development, excellence in purchasing and supply chain management, quality improvement, and energy efficiency. Most of these campaigns within the excellence programme have had organisational implications: some smaller or larger changes in the organisational structure have been implemented. Examples include the creation of an Excellence Steering Group, a Process Management Board, the establishment of new centres of excellence, and the creation of group-wide energy management jobs'.*

*'When reviewing our business perspectives and preparing a medium-term roadmap during the crisis years, we have acknowledged that our core business does not offer satisfactory growth prospects. We launched an ambitious initiative aiming to discover new business areas and new technology platforms and launch new products. We created an organisational structure that facilitates experimentation with new businesses and new innovation platforms – keeping in mind that these experimentations may end up either with the sale of the given new segment or with its integration in the corporate architecture. As it often happens, the related organisational transformation did not immediately produce the expected results. Consequently, we modified it again and experimented with new structures and new governance forms for years before arriving at the present setup'.*

In summary, the global organisations of the companies interviewed were undergoing continuous changes; reorganisation and experimentation with new organisational setups was the normal state of affairs. Moreover, because of intensive acquisition activity, large MNCs have constantly shifting portfolios of assets; in this sense, real sector companies have come to resemble financial investors.

#### **4.2 Crisis: few perceived direct effects—strategic actions with a considerable time lag**

The managers interviewed unanimously claimed that few of the *fundamental* organisational changes could be traced back directly to recessionary shocks. They emphasised that differentiation is necessary between MNC- and/or GVC-level *strategic realignment* and immediate reactions to some adverse developments in the business

cycle. Indeed, some immediate reactions envisaged cost reduction and were manifested in relocation moves and/or the closure of facilities in high-cost locations. Conspicuous as they seem in the light of media coverage, these are dwarfed by *strategic organisational reconfiguration* actions. However, few of these latter moves were directly associated with the rapidly aggravating international business environment.

In this subsection, we present some explanations of the few perceived *direct* effects of the crisis on the structure of the surveyed MNCs' organisation and on their GVCs.

One explanation is that major, strategic reconfiguration actions entailing structural shifts in the GVCs of the surveyed companies had already been implemented before the 2008 crisis. By the mid-2000s, they had all rationalised the architecture of the GVC through outsourcing and offshoring (cf. Buckley and Ghauri, 2004). They had adopted diversified coordination strategies by turning towards non-equity forms of control, with respect to selected production and support activities (cf. Gereffi et al., 2005). As compared with past changes, additional structural adjustments during and after the crisis were regarded as quantitative and incremental rather than as qualitative and radical.

Moreover, the actions that shaped the surveyed firms' organisational configuration during and after the global crisis were not consistent. Actions would not unambiguously point in a specific direction, e.g. to retrenchment or, conversely, to expansion through proactive investments. As summarised in Table 1, sample firms implemented several actions that shaped the corporate organisation. Portfolio moves included both divestments and expansionary acquisitions, rationalisation and concentration of activities, and diversification and entry into new business areas.

Another explanation of the few perceived *direct* effects of the crisis is that organisational realignment actions were regarded as being the outcome of *organic development*. Rather than being directly associated with the downturn of the business cycle, organisational changes have been explained by owners' long-term strategies.<sup>5</sup>

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<sup>5</sup> Additionally, the managers interviewed ascribed some organisational changes to the emergence of ad hoc opportunities. For example, the bankruptcy (or the financial difficulties) of a competitor or of a company specialised in complementary technologies often provoked a takeover decision.

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The accounts of two informants illustrate the claim that major organisational transformations result from long-considered strategic decisions rather than being driven by transient developments.

*'When our owner decided to divest and sell its pneumatics business line, the executives considered two alternative options. Although pneumatics had clear advantages: good performance indicators, the globally known brand name of our owner, and strong relations with other divisions, the size and the market share of this division did not match those of the top global competitors. In pneumatics, we were the third largest in Europe. However, in an era of global consolidation and with escalating price pressures, only the largest can survive. One option would have been to take over one of the key competitors (they are, however, larger by an order of magnitude than this business segment of our owner). Another possibility: to merge this business line with another one within the MNC's organisation and try to achieve, thereby, additional economies of scale. Our owner chose the third option: it restructured the pneumatics segment through relocations and capacity optimisation, divested, and sold it'.*

*'Business difficulties during the crisis have been managed with extraordinary success through capacity alignments, relocations, streamlining, and the occasional closure of operations. Nevertheless, our owner recognised that the consolidation of financial performance indicators is a necessary but insufficient condition of survival. If you try to compete with stand-alone products or product families in the automotive industry, you will be out; you have to offer integrated solutions. Our owner chose a good exit strategy; some months ago, the firm [i.e. the global MNC] was sold to another automotive company that is specialised in complementary products and technologies. By taking our company over, the new owner can expand its portfolio with our products and, thus, offer even more integrated solutions to its customers'.*

While the underperformance of a business line (e.g. because of declining customer demand) usually instigated the reconsideration of its organisational fit, global multi-business, multi-technology firms could avoid making hasty decisions. Therefore, divestments and withdrawals from selected business lines occurred with considerable time lags of three to six years, suggesting that these actions were the outcome of changes in the corporate strategy.

Moreover, successfully disposing of a business segment requires its restructuring first. Consequently, disposal transactions are preceded by investments in retrenchment and turnaround. Actions would include concentrating operations to improve capacity utilisation and profitability, stabilise revenues, and increase operating cash. These reorganisation actions may continue for several years before they culminate in the disposal of the given segment. Observers may, therefore, find it difficult to interpret these developments and assess whether they reflect (a) a systematic and proactive medium-term organisational strategy *culminating* in a successful disposal transaction or (b) a reactive organisational experimentation where the disposal of the segment reflects the failure of previous strategic steps.

From the point of view of peripheral subsidiaries in low-cost regions that would first experience mainly the benefits of corporate reorganisation (additional tasks relocated, responsibilities increased, investments implemented), adequate interpretation of the consolidation and realignment actions is even more difficult. Consequently, the ultimate decision about the disposal of the given segment may come as a shock for them.

As for the few organisational reconfiguration steps that were associated with the crisis, only the *catalysing* effect of environmental turbulences has been acknowledged, as illustrated by the following quotes.

*'I would not say that the crisis had no impact at all. It rather accelerated and intensified the organisational simplification actions we have been experimenting with for a while'.*

*'Crisis has brought out existing organisational and production inefficiencies. You know, when we are riding the expansion wave, we pay less attention to the hidden assets—to the huge savings we can achieve with some creative reorganisation steps'.*

*'Crisis prompted cost reduction and restructuring actions. Turnaround followed quite rapidly, due partly to beneficial market trends. The company started to grow at an extraordinary speed. Some years later, in 2014, the global HQ launched a comprehensive, multi-year organisational restructuring programme to optimise the functional and the operations procedures and to harmonise and standardise the IT systems. This restructuring was not prompted by the crisis but rather by the subsequent rapid growth*

*through acquisitions that necessitated the corporate-wide harmonisation of cultures, IT systems, and processes'.*

In summary, since organisational realignment is time consuming and involves non-negligible expenses, the related actions are implemented with a substantial time lag. Even in cases where changes were partly prompted by the crisis, the time lag of their implementation suggests that the reconfiguration of the organisation is an outcome of organic development and is driven by long-term strategic considerations. Nevertheless, as outlined in the subsequent section, the long-term-strategy-driven explanation of organisational changes cannot be regarded as suggested solely by corporate communication keeping an eye on the development of stock quotes.

#### **4.3 Key drivers of major organisational changes: long-standing market and technological trends**

An important finding that crystallised from the interviews is that long-standing technological and market trends were the main drivers of actions involving fundamental organisational transformation.

Companies systematically monitor and analyse industry-specific technological and market trends to detect opportunities and threats as early as possible. They establish in-house technology intelligence units and occasionally also trust specialised business services providers to scan new technological and market trends (Lichtenthaler, 2004).

According to our informants, key trends that influenced the organisational strategy and the structure were (a) the shifting composition of global demand; (b) the consolidation and concentration of global value chains and the resulting increase in the market power of the survived actors; and (c) industry-specific technological trends. This section reviews them in turn, together with the surveyed firms' organisational responses.

The phenomenon of shifting end-markets from North to South is a thoroughly discussed development (e.g. Cattaneo et al., 2010; Gereffi, 2014; Kaplinsky and Farooki, 2011) accentuated by the global crisis. The 'new market imperative' (Coe and Yeung, 2015, p. 101) was mentioned by almost all of our informants as a trigger for strategy

transformation that, in turn, had organisational implications. Organisational responses to the new market imperative were manifested not only in the establishment of new plants, new sales offices, and new distribution and logistics centres in growth regions; the surveyed MNCs also selected high-growth regions in which to locate their new development centres. This latter decision was made partly in an effort to gain additional legitimacy, partly to adapt existing products and develop new ones that are specifically suited to local demand, and partly to leverage local talent. One of the most conspicuous organisational moves that reflected the shift of the surveyed MNCs' focus towards new growth regions was the establishment of new regional HQs in these areas. Overall, responses reflected a general effort to increase a given company's global presence.

Conversely, some of our informants perceived a relative degradation of the importance of Europe and of the Central European facilities. Here is what some of them said:

*'While rationalisation moves addressed mainly our owner's European operations, buzzwords in other regions were different, for example, "expansion of the global footprint" and "next frontiers of growth".'*

*'I can perfectly understand the logic of reorientation to fast-growing markets. This would however imply diminished attention to Europe, at least in relative terms. In our case, I can perceive a relative decline in the significance of the Hungarian subsidiary's previous upgrading performance. What I notice is that our owner pays somewhat less attention to us; HQ is less willing to consider our initiatives'.*

*'Why not Hungary for the location of our new global IT-development facility? You know what our global strategic officer would ask himself before making a location decision? He would ask: "Where are our most important customers located?" As you know, there are tremendous opportunities in Southeast Asia; that's what influences the location decision of new corporate functional centres'.*

Another recognition that provoked organisational responses was that the competitive landscape has changed considerably. First, new competitors emerged with new business models (e.g. the product-as-a-service model). Conversely, the number of existing competitors diminished due to mergers and acquisitions. The surviving established

competitors have, however, leveraged their increasingly global scale. Second, the buyers/customers of our informants engaged in acquisitions and takeovers themselves, which was facilitated by the improved availability of credit and the reduced costs of financing. Buyers (e.g. large original equipment manufacturers) consolidated and concentrated their procurement to attain better prices. The adverse effects of the crisis: the overall decline in demand also improved buyers' bargaining power. Similarly, suppliers also became more powerful due to industry concentration and consolidation. Technology development (discussed later) necessitated the integration of new, specialised suppliers in the value chain that, in turn, leveraged their specialised expertise and captured an increasing share of total profit.

Together, these factors exerted increased pressure on the prices and margins of the surveyed companies.

Above and beyond various cost reduction initiatives (e.g. relocation) and efforts to improve operation efficiency, the changing competitive landscape prompted the surveyed global companies to increasingly tailor their solutions to customers' specific needs and localise their businesses. Moreover, to compensate for falling margins, firms transformed their business models from product-based to service-centric, another long-standing trend accentuated by the crisis. Transformation of the business model contributed to the surveyed MNCs' enhancement of their added value and the offering of solutions that better address customer needs. By 2008, both types of organisational realignment had been pursued for at least five years. However, the global crisis significantly intensified these processes.<sup>6</sup> The accounts of several managers interviewed demonstrate the strong association between changes in strategy (increased customer focus, localisation, and service-driven business model transformation) and structural changes.

*'Recognising that some of our customers account for a larger share of our total revenues than some countries in total (!), a network of key account managers has been created. We realised that we can hardly compete on the basis of 'global products' and 'global operations' any more. We created a corporate division responsible for implementing the*

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<sup>6</sup> Note that the two processes are closely interrelated: service-centric business models emphasise local responsiveness, while product-centric models are, rather, associated with global integration (Prahalad and Doz, 1988).

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*twin tasks of global products and local business. We increasingly localise support activities as well'.*

*'In contrast to the previous organisational setup with division-specific global and regional sales teams working together, nowadays customer-specific key account managers coordinate the preparation of individual large projects. Two key account managers work together: the one responsible for the customer in the country where the customer's HQ are located and the one responsible for the customer's subsidiary in the country where the project is going to be implemented. This ensures that our proposal is really tailored to the specifics of the planned project'.*

*'Local research and development departments have been set up to develop and launch product variants with market-specific features'.*

Industry-specific technological trends (such as electromobility and automated driving) represent the third, albeit the most important factor that influenced the reconfiguration of sample companies' organisations. Table 2 presents some examples and summarises sample companies' organisational responses to them. Across-sample organisational responses to the recognised trends were heterogeneous in terms of companies' make-or-buy choices. Some companies built up in-house capabilities, while others relied on newly formed strategic partnerships or resorted to external services providers, although hybrid solutions were the most common.



**Table 2 Sample companies' organisational responses to technological trends**

Examples of technological trends	Organisational responses*
New paradigms in manufacturing (shifting to digital factories; ubiquitous computing; 'cloud'; 'big data')	<ul style="list-style-type: none"> <li>• Establishment of dedicated corporate divisions;</li> <li>• Strategic alliances, new partnerships;</li> <li>• Open innovation;</li> <li>• New work organisation: digital workplaces, virtual teams;</li> <li>• Investments in in-house capabilities to collect, integrate and analyse data;</li> <li>• Implementation of the necessary related organisational changes;</li> <li>• Increased reliance on new digital support solutions (part of them outsourced).</li> </ul>
Industry 4.0 (integrated automation solutions, 3D printing, new materials)	<ul style="list-style-type: none"> <li>• Targeted divestment of selected business lines;</li> <li>• Cross-divisional technological collaboration;</li> <li>• Establishment of new centres of excellence related to industry 4.0;</li> <li>• Strategic partnerships with software solutions providers whose software will be embedded in production process.</li> </ul>
Greater connectivity, Internet of Things (IoT)	<ul style="list-style-type: none"> <li>• Expansion in new business areas opened up by digital developments;</li> <li>• Establishment of new corporate divisions and centres of excellence;</li> <li>• Intensified acquisition activity;</li> <li>• New strategic partnerships, open innovation;</li> <li>• Increased cross-divisional collaboration to bring together the physical and digital.</li> </ul>
Intelligent (smart) products	<ul style="list-style-type: none"> <li>• Strategic partnerships with IT-service providers to jointly develop product-embedded intelligence solutions;</li> <li>• Building up additional in-house research capacities;</li> <li>• Targeted acquisitions to gain access to complementary technology.</li> </ul>
The 'Sustainability imperative' (lowering energy consumption and CO <sub>2</sub> emissions in the production process)	<ul style="list-style-type: none"> <li>• Establishment of dedicated green functional departments;</li> <li>• Merger and transfer of related activities performed previously in isolated functional departments;</li> <li>• Creation of new executive jobs; cross-divisional collaboration for green objectives;</li> <li>• Reorganisation of the supply chain;</li> <li>• Expansion and diversification of the R&amp;D team;</li> <li>• Establishment of new centres of excellence;</li> <li>• New technological partnerships, e.g. through participation in research consortia working on green solutions.</li> </ul>
Increased importance of remanufacturing/refurbishing <sup>7</sup>	<ul style="list-style-type: none"> <li>• Adoption of a new business model for remanufactured products;</li> <li>• Relocation of remanufacturing-related tasks to low-cost areas, including the reverse logistics function.</li> </ul>
Modularisation of product architecture	<ul style="list-style-type: none"> <li>• Reorganisation of the supply chain: development of stronger ties with selected suppliers;</li> <li>• Increased reliance on relocation to low-cost premises;</li> <li>• Acquisitions to increase the integration of the solution (the module);</li> <li>• Increase of the global footprint.</li> </ul>

\* Individual companies resorted to one or several of the listed actions.

Source: interview information and corporate annual reports

<sup>7</sup> Remanufacturing is an eco-efficient production and consumption model that involves the disassembling of used complex products, followed by the inspection, cleaning and repair of their components in order to use them in the manufacture of new products.

Furthermore, recurring topics (mentioned by several informants) suggest that benchmarking and imitation of competitors' new managerial practices and management model innovations was also an important driver of organisational transformation. Examples include

- the implementation of lean principles with organisational implications, such as the reorganisation of business unit responsibilities, reduction in the number of organisational layers, and concentration of specific support tasks at selected premises;
- increased attention to energy efficiency and on the reduction of CO<sub>2</sub> emissions with organisational implications, including the establishment of dedicated units and the creation of intra-organisational linkages between departments responsible for environmental management, operations management, supply chain management, and corporate social responsibility<sup>8</sup>;
- increased focus on cross-divisional collaboration within the MNC that prompted a number of organisational realignment actions;
- focus on increased group-level integration through unification of the IT infrastructure, data, and process harmonisation and standardisation and through the establishment of additional SSCs.

In summary, newly identified emerging technological and market trends have exerted a greater and more obvious influence on organisational and GVC-level changes at the surveyed companies than have transient developments in the business cycle.

#### **4.4 Impact on the Hungarian subsidiaries**

The managers interviewed maintained that the Hungarian subsidiaries were net beneficiaries of their MNCs' organisational reconfiguration actions. Organisational realignment reinforced the ongoing organic upgrading processes the surveyed subsidiaries already had been experiencing for five to ten years before the crisis. Crisis years' and post-crisis relocation moves contributed not only to capacity expansion but also to product and process upgrading. Co-location decisions have further enhanced the

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<sup>8</sup> As demonstrated by Dües et al. (2013), lean and green practices are strongly interrelated.

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surveyed subsidiaries' functional upgrading. The synergy effects of locating production-related support tasks to the production sites were recognised well before the crisis; nevertheless, these moves became more frequent after the crisis years.

*'The development of the Hungarian location has been going on quite rapidly through consecutive production relocation decisions. New production sites have been added to the original one: now we have four factories in Hungary. Additionally, a distribution centre and a training centre were established. We are hosting some production-related research activities as well, and the volume of R&D activities keeps expanding. Upgrading took a new qualitative turn with the location of various SSCs to Hungary. Over time, a finance and an IT SSC were located to Hungary and a regional sales and distribution centre that is responsible also for repair and service activities. As I see it, the next functional consolidation step will be in the field of human resource (HR) management: we are competing now for the possibility to host an SSC in HR.'*

*'One positive impact of the crisis (positive for us) was the relocation of R&D activities: our HQ decided to locate a number of R&D tasks to us and to India.'*

Conversely, relocations to selected neighbouring low-cost countries (some activities were relocated from Hungary to newly established facilities in Romania, Serbia, Ukraine, etc.) opened up opportunities for best practice transfer and patronage activities, such as technical and management consultancy—carried out by the Hungarian experts at the premises of the relatively younger partner subsidiaries in the region.

As outlined previously, the surveyed MNCs implemented a number of targeted acquisitions, even during the years of the crisis. In some cases production activities that used to be carried out by the newly acquired companies were relocated to the Hungarian premises, together with the related development and testing activities.

The managers interviewed emphasised that the delegation of further responsibilities to the Hungarian subsidiaries and the additional upgrading opportunities these actions opened up for them cannot be ascribed only to the impact of the crisis: demonstrated local capabilities have been crucial drivers of their upgrading.

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*'I admit, crisis prompted Western companies' movement eastwards: they were eagerly looking for cost-cutting possibilities. However, when they realised that their Hungarian subsidiaries are capable of absorbing the transferred production processes without jeopardising quality, they quickly experimented with the relocation of other business processes as well. This is how we gained responsibility for corporate-wide accounting tasks, for testing and programming (writing software embedded in the production machinery), and for selected operational procurement tasks. Additionally, we have a patent engineering team working for the mother company. In sum, yes, we benefitted from the crisis, but only good goalkeepers have hits in the woodwork<sup>9</sup>.*

*'Emphasising the "low-cost factor" is a prohibitive simplification! Yes, we received the first relocated product lines because we are a low-cost location. But I cannot imagine that such a rapid development would have taken place if our process engineers hadn't invented solutions that have really contributed to making our facility a flexible, versatile, highly productive factory! It is no surprise that technicians among others from the Chinese partner subsidiary (!) come to Hungary to study our processes and learn from us'.*

*'One thing is important to emphasise: although some of the milestones in our evolution date back to the crisis years or happened thereafter, they can only partly be attributed to the crisis. They are, rather, the result of organic development, and they reflect recognition of our performance and capabilities'.*

The incorporation of remanufacturing in group-level business models has also contributed to the functional upgrading of several companies in the sample. Since the value proposition of business models that incorporate remanufacturing is advantageous not only from an environmental perspective but also from the point of view of cost-effectiveness (remanufactured products are lower-cost alternatives to traditional new products),<sup>10</sup> remanufacturing activities are often located to low-cost production facilities. According to our informants, the sample companies that host remanufacturing

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<sup>9</sup> 'Only good goalkeepers have hits in the woodwork' is a Hungarian proverb. Its meaning in this context is that the firm's gaining from crisis-driven intra-MNC reallocation steps cannot be interpreted purely as a *lucky* development: they have 'deserved' their mother company's increased resource commitment because of their excellent performance.

<sup>10</sup> Consequently, this business model enables the original equipment manufacturer to benefit from a secondary market, and opens up new business opportunities over which the manufacturer previously had no control (Opresnik-Taisch, 2015).

activities benefitted from the higher-than-average knowledge-intensity<sup>11</sup> of remanufacturing; they hired additional engineers and increased the unit value added of their operations.

Some of the strategic organisational realignment moves have also added to local subsidiaries' perceived degree of upgrading. In the past, functional coordination was typically deployed in the form of hub-and-spoke systems; the satellites received HQ's instructions and implemented them. One outcome of the comprehensive reconfiguration of the surveyed companies' organisations was the transformation of these unidirectional systems—within functions as diverse as R&D, procurement, human resources management, distribution, and sales. Instead, networks with multiple nodes and centres have been created. Henceforth, bottom-up charter definition and initiative-taking complemented top-down instruction execution, at least within the global functions located to the premises of the subsidiaries. Increased attention was paid to best practice sharing and exploration of internal collaboration possibilities. Consequently, subsidiaries became increasingly networked within the MNCs and had numerous horizontal experiences as opposed to the usual vertical and hierarchical dependence on the regional/global HQ.

One caveat, originating in the focus of our research on organisational reconfiguration-driven impacts of the crisis, deserves to be mentioned here. The hitherto detailed beneficial impacts of the crisis on the surveyed subsidiaries are not intended to suggest that these companies did not face declines in sales and employment. Most of them were forced to implement similar retrenchment programmes as their mother companies: job cuts, pay cuts, reduced bonuses, short-time work programmes, curtailed investment plans, and so forth. Nevertheless, turbulent times were quickly over at practically every company in the sample, partly because of the above-detailed relocations.

Furthermore, the surveyed companies occasionally faced turbulent times because of their parent companies' continuous experimentation with the organisational structure. The subsequent paragraphs provide some examples.

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<sup>11</sup> Remanufacturing is at the intersection of production and services activities, and it often requires more sophisticated operational competencies than does manufacturing (Opresnik-Taisch, 2015).

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The first example is the case of a subsidiary where functional upgrading was manifest in the procurement function. Assuming ever-greater responsibilities within the core activity-related procurement, the subsidiary kept developing and became entrusted with scanning the regional market for new suppliers. It hired supplier relationship management experts, performed supplier audits, designed and implemented supplier development programmes, and was responsible for the localisation. However, at one point in time, it lost its procurement mandate because the HQ decided to centralise procurement activities in a Group Purchase department located in Switzerland.

Another company also gained a regional procurement mandate and did its best to develop (enhance the knowledge-intensity of) this support function. Later, procurement activities were decentralised, and the partner subsidiaries in the region took up responsibility for operational procurement themselves. In another case, local manufacturing operations were discontinued in 2007, and the subsidiary became a pure R&D facility—a centre of excellence within the group. In 2013, manufacturing activities were restarted in a new, greenfield facility. Some companies were reorganised because their owners decided to divest and sell the given business segment, and they were integrated into a new owner's organisation.

The accounts of two informants also illustrate the turbulence local subsidiaries would occasionally experience as a result of their parent companies' experimentation with the organisational structure.

*'During the crisis year, we became entrusted with a number of group-level procurement tasks, though these latter were partly recentralised to Germany. However, I don't think the organisational position of procurement has stabilised; you know why? Because an organisational transformation step will not yield the expected results if you realign one single function. Functions consist of a number of interrelated activities, and functions themselves are interrelated. If you centralise only one function in an isolated manner without reconsidering the whole organisational architecture, a number of problems will emerge. In our company, problems and inefficiencies emerged after the relocation of procurement to Hungary. Recentralisation did not solve these problems; similar inefficiencies were experienced in Germany.'*

*'We have gained responsibility for the production of a newly developed sophisticated product. Since the launching of a new product requires the development department experts' quasi-continuous support, i.e. the joint work of product developers, design engineers, process engineers, technicians, and assemblers, the relocated processes were excessively costly (German experts had to spend long months in Hungary), and quality problems were numerous. Finally, HQ decided to backshore the given production activity to Germany. Although the factory in Germany experienced similar problems, it was decided that scale-up development will be finalised in Germany. When production gets standardised, it will probably be relocated not to Hungary, but rather to the rapidly growing Romanian subsidiary of HQ.'*

Irrespective of these turbulences, on balance, the surveyed Hungarian subsidiaries have undergone significant expansion and upgrading since the global crisis. Partly by virtue of their prior demonstrated capabilities, they have become net beneficiaries of their mother companies' organisational reconfiguration moves.

## **5. Conclusions**

This paper has argued that the global crisis reinforced and intensified MNCs' ongoing organisational reconfiguration trends. GVC-orchestrating multinational companies are characterised by active portfolio management strategy; they flexibly adapt to adverse (or to beneficial) changes in the business environment through divestments, reorganisation, expansion, and acquisitions, or by switching value-adding activities between affiliates. They implement continuous, experimental changes in the organisational design to improve the efficiency of coordination, enhance integration and coherence, facilitate exploration, and bolster exploitation.

Although the global crisis prompted a number of cost-cutting actions, including the occasional closure or sale of facilities, reorganisation, and relocation, actions involving fundamental organisational transformation (i.e. actions that transcended mere cost cutting) cannot be directly associated with the crisis. Strategic organisational realignment programmes that have been driven by long-standing technological and market trends have eclipsed pure retrenchment moves. They have been implemented

with shorter or longer time lags after the crisis. Though crisis might have exerted a catalysing effect on strategic organisational redesign, direct causal association can be excluded.

Altogether, the surveyed Hungarian subsidiaries have benefitted from their owners' cost-cutting and restructuring actions. They were on the receiving end; they hosted some of the relocated production activities. Moreover, the recognised necessity of task integration and of co-location-driven synergy effects has intensified the ongoing functional upgrading processes at the surveyed subsidiaries. Consequently, in the wake of MNCs' strategic redesign of their organisational architecture, their overall position has improved.

This research has a number of limitations. A primary limitation is sample selection bias; large, global MNCs may weather the crisis more easily than family-owned internationalised ventures with a couple of low-cost production facilities. Crisis-driven adjustment and reorganisation steps, as well as reliance on counter-cyclical strategies, may significantly differ across various size categories.

Another limitation (that can also be explained by biased sample selection) is the dominance of success stories. This suggests an unfounded and certainly misleading postulation that Hungarian subsidiaries are well-established to withstand adverse turns in the business cycle: they can stably and enduringly rely on their existing locational advantages. As the development of an outlier firm in the sample demonstrates, this is not necessarily the case. Following a period of gradual upgrading in which R&D and IT development activities were located to the expanding Hungarian production facilities, the owner decided to consolidate R&D activities in the Romanian subsidiary. The global crisis has further reinforced the functional upgrading of the Romanian location. New R&D centres were established, and highly skilled employment increased rapidly in Romania. R&D activities in the Hungarian location have been phased out. Meanwhile, the Romanian facilities were chosen as the location of newly established SSCs (in IT and in procurement). The manufacturing facility in Budapest has also increased (doubled) its turnover; however, this was due to changes in the product mix. The new product mix consists of less-sophisticated products, albeit with much longer production runs. Although it is exceptional in our sample, this case suggests that crisis-driven additional



functional upgrading is not an automatic development for manufacturing subsidiaries in low-cost locations.

The strong industry-specific character of the drivers of steps for organisational reconfiguration represents another limitation. Further research is required to explore the factors that influenced the reaction of MNCs to the global crisis in other industries.

Finally, this research has not controlled for home and host country-specific institutional factors that also might have shaped the surveyed MNCs' behaviour. Finally, the results presented in section 4.4 are confined to Hungary, and it would be important to see if they are confirmed in other CEE economies.

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## **Annex**

### **Interview protocol**

1. Please describe the changes the global financial crisis of 2008-2011 induced in your mother company's global value chain strategy. (Consolidation / rationalisation of the value chain; relocations; closing down or sale of selected subsidiaries; OR expansion; establishment of new subsidiaries; and acquisition of competitors)
2. Can you report of any occurrence of the below-listed organisational restructuring actions?
  - a. Any new shared services centres established? (Please give examples.)
  - b. Any additional functions outsourced or offshored to subsidiaries? (If yes, please give examples.)
  - c. Were there any previously outsourced/offshored functions that were reshored as a consequence of the crisis?
  - d. How did the number of external R&D partnerships evolve? Do you perceive an enhanced commitment towards open innovation?Can these changes be traced back to the crisis (or they would have happened anyway)?
3. Did the above-described transformations in the global value chain orchestrated by your company have an impact on the activities / position of the Hungarian subsidiary? Please specify.
4. Did the crisis-driven reconfiguration of the MNC's organisational structure create any upgrading opportunities for the Hungarian subsidiary (in terms of new production tasks and new functions, such as R&D, procurement, etc.), or did it rather provoke a loss of previous mandates in specific functions?
5. Did the crisis have any effect on the linkages of the subsidiary (e.g. with partner subsidiaries or with suppliers)?
6. Do you perceive any other changes in the organisational configuration, in management practices, or in the business model over the past five to seven years that occurred as a consequence of the crisis? If yes, what was their impact on your company?
7. How do you assess the overall impact of crisis-driven reconfiguration steps implemented in your owner's organisation on the Hungarian subsidiary?