



BANCA D'ITALIA  
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(Occasional Papers)

Italian firms between crisis and new globalization

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# ITALIAN FIRMS BETWEEN CRISIS AND NEW GLOBALIZATION

by Antonio Accetturo\*, Anna Giunta\*\* and Salvatore Rossi\*

## Abstract

This paper analyzes the characteristics of Italian firms involved in global value chains (“intermediate” firms) by using the Bank of Italy survey on industrial companies. Intermediate firms show, on average, worse features than “final” firms: smaller size, lower share of white collars, lower productivity and export propensity. However we observe a strong heterogeneity, depending on the ability (and modalities) to upgrade along the value chains. There are wide differences between upgrading and non-upgrading (marginal) intermediate firms in terms of size, efficiency, human capital endowment and international competitiveness. During the 2008-09 crisis, marginal intermediate firms performed definitely worse; moreover, facing a collapse in world trade, firms that were upgrading by expanding their international linkages were more severely hit than those that were differentiating their internal functions.

**Classificazione JEL:** D23, L23, L24.

**Parole chiave:** fragmentation, offshoring, global value chain, upgrading.

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\* Banca d’Italia, Economics, Research and International Relations Area.

\*\* Rome University III.



## 1. Introduction<sup>1</sup>

The macroeconomic data offer a picture of the present-day Italian economy along these lines: output and productivity practically stagnant since the late 1990s; barely grazed by the global financial crisis of 2007-08 but hard-hit by the consequent world recession of 2008-09, which set GDP back ten years; now exiting the crisis at the same slow pace it had going in. This persistently slow growth, after the damage done by the recession (Caivano, Rodano and Siviero 2010) exposes the Italian economy to the risk of progressive decline in the international arena – that spectre of decline evoked at the turn of the century and deemed unlikely, albeit with qualifications, by the “optimists of the will” (see among others Signorini and Visco 2002, and Rossi 2003).

One explanation of Italy’s failure to maintain rapid economic growth and hold its own in international competition cites the inability of the productive structure to adapt to the changing external environment (Rossi 2006). During the 1990s the world changed radically, it is argued, both in technology and in the breadth of markets. The Italian economy, dominated by small, static, traditional, family-run firms, had adapted for survival in the old world of the 1970s and 1980s thanks precisely to those features, but now it is finding it harder and harder to meet the competition in a digital, globalized environment in which size, complexity and innovative capacity are essential to exploit the efficiency gains offered by new technology and to penetrate distant markets.

Shortly before the outbreak of the crisis, a tardy process of restructuring could be detected in some parts of the Italian economy, with greater and more systematic use of information and communications technology for management, an extension of the product range thanks to advances in technology intensity, and greater internationalization (Brandolini and Bugamelli 2009). The recession may have undermined this process (Banca d’Italia 2009a). The macroeconomic data and projections do not indicate any sharp pick-up in output trends, either today or in the next two years.

However, the outside world is still changing, obliging us to look at the evolution of the Italian economy in a new light. A growing body of literature over the past fifteen years considers that a structural change in the productive economy throughout the world has occurred as a further consequence of the ICT revolution, the steady lowering of trade barriers and transport costs (Feenstra 1998). A number of terms have been coined for the essential elements of the process: unbundling, fragmentation, offshoring, global value (supply) chains.

Grossman and Rossi-Hansberg (2006, 2008) were among the first to devise a systematic conceptual framework for the reflections developed beginning in the early 1990s on what appears to

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<sup>1</sup> This essay updates and reworks “L’economia italiana tra crisi e nuova globalizzazione”, a paper presented at the Conference *Economia e Politica industriale* (Perugia, 24-25 September 2010), parts of which were incorporated in Rossi (2010).

be a gradual change in the object of international trade from goods to tasks. The outcome is a new international division of labour in which many goods are the end products of global supply chains to which firms located in various countries gradually add fragments of value.

Under this interpretation one may consider the production process for any given good as a continuum of tasks assigned to the various productive factors, tasks that can be performed in several different places around the world. The organization of production varies continually, with each task offshored to the country where the production and international transaction costs are lowest.<sup>2</sup> That is, a new paradigm for analysing the international organization of production is coming into being, in which the focus is on trade in production tasks, while traditional trade in goods tends to play an accessory role.<sup>3</sup> However, the trade-in-tasks model can be set within the mainstream theory of foreign trade (Baldwin and Robert-Nicoud 2007, 2010): both trade in goods and trade in tasks arise endogenously in response to exogenous shocks to the cost of shipping goods or transmitting ideas.

For its part the business school literature, naturally indifferent to the macroeconomic issues of trade between nations, has concentrated on the theory and practice of global supply chain management. This topic, initially conceived simply as part of logistics, has now become an independent field of study bearing on the different ways in which a firm can govern a chain of activities extending to a multiplicity of countries or markets or take part in segments of it.<sup>4</sup> By governance structure, a global value chain (GVC) may be one of three types (Gereffi, Humphrey and Sturgeon 2005): modular (in which the suppliers of intermediate goods are largely independent and may work for multiple customers); relational (in which customer-supplier relations are closer but with mutual dependence, as in industrial districts); and captive (in which suppliers are dependent on one large customer). As we see, these are points within an ideal interval that lies between two extremes: maximum separation with the prevalence of market exchange at one end, perfect vertical integration within a single firm at the other.

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<sup>2</sup> “Offshoring” is the term to designate a firm’s transferring a production task abroad, whether within the perimeter of the firm (“abroad” meaning to any country other than the parent company’s home country) or to another company located abroad. Naturally, outsourcing within the home country without offshoring is also possible.

<sup>3</sup> Some scholars (Blinder 2006) have gone so far as to proclaim a “third industrial revolution” (following that begun in the 18th century in England and that of the mid-20th century), which led to the predominance of services over manufacturing. Now we are in the “information age”, in which international trade turns not on tangible merchandise (“what you can package”) but on “impersonal services” (which can be rendered even without physical proximity).

<sup>4</sup> Some governmental agencies have published works on this theme. The Canadian Trade Commissioner Service has brought out a guide (2010) for small and medium-sized enterprises that intend to link in to global value chains. The guide defines global value chain (GCV) in exemplary fashion: “Company X is headquartered in Canada, has its R&D function in the United States, manufactures its good in China using parts made in India, sells to the European common market, and offers after sales service from Thailand. The firm in each geographic area specializes in one task, performing at a higher level than if one firm were to complete all activities. This is the nature of a true global value chain.” The guide says that small and medium-sized enterprises can gain strategic advantage from linking in to or even “governing” GVCs and lays out standards for valuing economic benefits, capacities and methods.



The OECD has carried out a broad, systematic empirical study of the globalization of value chains (unfortunately, with data only through the first few years of the century), showing the main economic policy implications for the advanced countries (OECD 2007).<sup>5</sup>

To recapitulate: the production of every thing (from computers to retail trade services) consists of a series of separate tasks; each task can be located outside the “final” firm, including abroad; international trade in goods is flanked by trade in tasks; global value chains form as the core of a new international division of labour. We can sum all this up in the term “new globalization.” This very likely facilitated the global contagion of the recession that came on the heels of the global financial crisis (Cattaneo, Gereffi and Staritz, 2010). GVCs, in fact, act as a channel for the rapid transmission of real and financial shocks, in that a fall in the demand for final goods impacts immediately on the demand for intermediate goods. Baldwin (2009) holds that the synchrony of the collapse in world trade was caused precisely by the globalization of value chains. At the same time, the recession itself may have accelerated this “new globalization,” spurring the drive for more highly ramified organization of production and cost-saving offshoring.

What are the prospects for Italian firms in this new context? How has linking-in to GVCs affected their performance during the recession? These are the questions that this work intends to address. Section 2 briefly analyses the impact of the crisis on Italian firms and their participation in GVCs. Section 3 presents the data, with a descriptive analysis of the main characteristics of our sample firms. Section 4 deals with the upgrading of firms within the value chain and the criteria for measuring it. Here we use specific criteria, called functional upgrading and relational upgrading, and structure and performance indicators, from which we infer the heterogeneousness of the Italian firms that take part in GVCs. Section 5 uses econometric estimates to analyse the performance of the different types of firm identified previously during the recession. Section 6 concludes with a few economic policy indications.

## **2. Italian firms in the recession**

The Bank of Italy’s Survey Industrial and Service Firms in the spring of 2008 (Banca d’Italia 2009b) found that a large majority of the 4,000 respondents (70 per cent in industry, 60 per cent in services) considered that the economic crisis had affected them “somewhat” or “a lot”. They

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<sup>5</sup> These are mainly along “traditional” lines. The OECD argues that the industrial countries need to move continuously up the value chain with strategies to enhance the know-how and technology embodied in products, improve human capital, develop entrepreneurship, exploit any local territorial advantages, strengthen the attractiveness of locations for investors and adapt intellectual property rights to the need to stimulate innovation. The OECD is more cautious in assessing the nascent debate (which exploded in the years of crisis) on the desirability of “industrial policy” as such, i.e. a policy involving selectivity as between sectors or even firms.

reported an average fall in sales of 20 per cent in industry and 14 per cent in services. The decline was sharpest (25 per cent) among industrial exporters (defined as firms for which exports account for two thirds of total sales), and as great as 50 per cent or more for producers of capital goods. Among the problems most frequently reported, in addition to the drop in demand, was sluggishness in payments from customers, which highlights the strongly financial side – liquidity shortage – of the crisis.

Bugamelli et al. (2009) picked up an interesting phenomenon. The firms that had restructured before the outbreak of the crisis weathered it much better, with an attenuated impact on sales, exports, and earnings. But what happened to the others, those lagging behind in the process of modernization? On the face of it, the omens for them are not auspicious: hit harder by the recession, if they have not already succumbed they may be struggling to survive and unable to embark on a difficult and costly process of restructuring.

However, the new type of organization that is advancing around the world, described above as “new globalization,” requires more sophisticated analysis and more nuanced judgment. It is crucial to understand how Italy’s economy is involved in the transformation, how it can position itself in the new international division of labour, as supplier/purchaser of intermediate goods as well as producer of final (manufactured) goods. GVCs tend to create a world in which nearly all firms, with the exception of a few “final” firms, are both buyers and sellers of production “tasks.” The competitive edge for a firm that is linked in to a GVC consists in market power vis-à-vis the adjacent links in the chain.

Subcontracting (producing intermediate goods to the customer’s specifications) has long been widespread in Italian industry. It is generally feared that this is typically an unbalanced relationship in terms of market power, with a weak, “captive” subcontractor and a strong client firm. This is a surprisingly unexplored field of research. Studies have shown that some Italian manufacturing firms have taken part in the offshoring of production as customers, with benefits for the overall performance of Italian industry (Daveri and Jona-Lasinio 2007; Falzoni and Tajoli 2008). Federico (2010) has shown, for a representative sample of Italian manufacturers, that smaller average firm size and less capital-intensive product specialization are reflected in organizational choices that, by comparison with other countries, prefer outsourcing (including offshoring) to outward foreign direct investment.

What do we know about the complementary agent, i.e. the firm that elects to produce as subcontractor rather than as manufacturer of the final product? Not much. Our information on the quantitative importance of this phenomenon and on the performance of these firms is partial and

partly inconsistent. Some studies (Razzolini and Vannoni 2009) find that the majority of cases involve marginal firms that because of low ex ante productivity cannot sustain the fixed costs typical of the final product market (a sales network and advertising, for instance) and accordingly opt to sell their output to other firms, either Italian or foreign. That is, there is evidence of a subcontracting discount. If confirmed, this thesis would cast a shadow over Italy's role in GVCs and its industrial future. But it is partly refuted by other works (Giunta, Nifo and Scalera, forthcoming; D'Agostino et al. 2010) that have found that subcontractors are a mixed group that includes some firms with a relatively high propensity for product innovation and international projection and with productivity no lower (and in some cases actually higher) than that of firms that do produce directly for the final market.

The theme warrants further investigation. We need to inquire into how our firms can achieve upgrading along the value chain and how successful these actions were in the most acute phase of the recession.

### **3. The data**

The data are drawn from the Bank of Italy's Survey of Industrial and Service Firms, with special reference to the sub-sample of approximately 2,000 manufacturing firms. The questionnaire contains a number of questions on firms' structure, organization and performance. Every edition of the survey also includes monographic sections on special topics. The monographic section in the survey for 2007, on which our analysis is based, concerned "subcontracting". Firms were asked to say, for 2004 and for 2007, what proportion of their purchases and sales were accounted for by subcontracting and to specify the nationality of their supplier and client firms (Italy, advanced countries, emerging economies).<sup>6</sup>

We identified the sample firms that reported that subcontracting had accounted for at least 10 per cent of their total sales in 2007 and defined these as representing the concept of intermediate link in the value chain. Of course, this standard is arbitrary, both in its numerical threshold and, more important, in treating the two phenomena as equivalent. This set of firms does not necessarily coincide with that of firms that actually form part of a value chain. Subcontracting work, by the Italian legal definition used in the survey, means performing tasks that have been decided and assigned by others, while a supplier may link in to a GVC while still retaining (and using) relative autonomy and power of initiative to determine the product supplied. The criterion we have adopted

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<sup>6</sup> For the questionnaire, see Banca d'Italia (2008).

enables us to pick out a group of firms that we consider likely to be part of a value chain that is at least potentially global. Stretching the point conceptually and lexically, we call them the “intermediate links of a GVC” or, for short, “intermediate firms”.<sup>7</sup>

One specific theme here is the relative performance, during the crisis of 2008-09, of intermediate firms compared with the others, which we term “final” (in the sense that they sell over 90 per cent of their output in the final market). To this end we have further circumscribed the 2007 survey sub-sample to the firms that were also included in the 2009 survey (Banca d’Italia 2010b). This yields a balanced sample of 1,528 firms, of which 399 are intermediate firms.

Table 1 compares the main characteristics of the intermediate and final firms. The intermediates are “worse” in organization and performance: fewer workers<sup>8</sup> and lower sales per worker (a proxy for labour productivity); the white-collar share of the workforce and the propensity to export are both decidedly lower.

However, while *on average* they are backward by comparison with the final firms, our intermediate firms are quite heterogeneous in terms of the way they moved in the value chain between 2004 and 2007.<sup>9</sup>

#### 4. Moving up in global value chains

We consider that a supplier of intermediate goods has moved up a value chain when it repositions in a more profitable segment with higher entry barriers that shelter it from capture by the client firm and from the competition of suppliers that enjoy cheaper labour. The GVC literature calls this “upgrading”. Naturally, whether a move is effectively an upgrade can only be ascertained *ex post*, by observing whether the firm’s performance shows a structural improvement. But in order to study such phenomena we must define the empirical criteria *ex ante*, in order to evaluate the relative performance of heterogeneous firms. Unfortunately, any such empirical exercise is hindered by the lack of data at firm level. And when data are available, they tend to be of poor quality. The problem is universal (OECD 2007, Sturgeon 2008).<sup>10</sup> Generally, this shortcoming is remedied by recourse to case studies (Dolan and Humphrey 2000; Bair and Gereffi 2001; Bazan and Navas-

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<sup>7</sup> We use “intermediate firms” and “subcontracting firms” interchangeably.

<sup>8</sup> The average number of workers of firms in the survey is much higher than in the 2001 census of industry and services or in more recent “quasi-census” surveys such as Asia. This means that the sample used here is not representative for small and micro firms.

<sup>9</sup> This confirms the findings of Giunta et al. (forthcoming) and D’Agostino et al. (2010).

<sup>10</sup> “The rise of Global Value Chains signals an urgent need to develop new firm- and industry- and society-level metrics to provide a better view of how domestic firms and industries are positioned in the global economy” (Sturgeon 2008, p. 249).

Aleman 2004; Giuliani et al. 2005; Memedovic 2008; for Italy, Corò and Grandinetti 1999; Amighini and Rabellotti 2003; De Arcangelis and Ferri 2005). While this approach exploits high-quality data gathered on an ad hoc basis, it does not permit general conclusions founded upon representative statistics.

Based on a series of case studies, the literature (notably Humphrey and Schmitz 2002) distinguishes four types of upgrading within a GVC, not mutually exclusive<sup>11</sup>:

- a) process: reorganizing the production process or introducing a new technology;
- b) product: making a product with greater market value, in the same product sector;
- c) functional: taking on new corporate functions (switching from mere manufacturing to activities comprising, say, design);
- d) intersectoral: shifting the firm into a new product sector.

The traditional concepts of process and product innovation, and also that of intersectoral migration – those underlying points a), b) and d) – are clearly pertinent to any firm that wants to gain a competitive edge, not specific to intermediate firms moving up a value chain. Their interest here is accordingly limited. More interesting is the concept of functional upgrading, because the performance of a growing number of functions in-house may signal an organizational transformation necessitated by membership in a GVC.

Another type of upgrading specific to value-chain membership is “relational upgrading,” i.e. broadening the firm’s interchanges with the chain. This translates into the capacity, for the intermediate firm, to create its own network of suppliers or to extend its customer base, including in other countries. Having a network of suppliers makes it possible to outsource the low-value-added phases of production and concentrate on the more profitable, demonstrating enhanced capacity for coordination and command within the value chain (Giunta and Scalera 2007; Arrighetti and Traù 2008). Increasing the number of customers by international projection may help foster innovation through exposure to a more open competitive environment (Clerides et al. 1998) and greater proximity with the chain’s leader firms. The latter, mainly multinationals (Gereffi et al. 2005; Saliola and Zanfei 2009), serve as transmitters of advanced technological and managerial know-how.

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<sup>11</sup> According to Giuliani et al. (2005) the opportunity for moving up is influenced and sometimes constrained by corporate governance. Humphrey and Schmitz (2000) maintain that operating within a quasi-hierarchical value chain offers favourable conditions for process or product innovation by the supplier firm but impedes functional upgrading.

Our empirical analysis uses the concepts both of functional and of relational upgrading. On the basis of the data available, namely the 2007 Survey of Industrial and Service Firms, we proxy these two notions as follows.

#### Functional upgrading

We define an intermediate firm as engaged in functional upgrading if it improved between 2004 and 2007, or was above the 90th percentile in both years, in one of the following parameters:

- clerical workers and managers as a share of workforce;
- number of functions performed in-house.

The share of “white-collar workers” is a proxy for human capital endowment, while the number of functions performed in-house is a proxy for the degree of organizational complexity. Both characteristics are indicative of an expansion of the firm’s sphere of activity beyond mere production.

#### Relational upgrading

We define a firm as engaged in relational upgrading if it improved between 2004 and 2007, or was above the 90th percentile in both years, in one of the following parameters:

- subcontracting sales to foreign customers;
- subcontracting purchases.

These variables are proxies for the firm’s international projection and for its ability to organize and manage a supply network of its own in which it plays the part of customer.

Of the intermediate firms of the panel, 97 displayed functional but not relational upgrading and 92 relational but not functional upgrading. The firms that displayed both traits numbered 102; we define these firms as “advanced”. The 108 firms defined as “marginal” are those that showed no sign of upgrading. The descriptive characteristics of the four classes of intermediate firms obtained in this way are reported in Table 2. The differences between them are evident. Our marginal firms are smaller on average, have significantly lower labour productivity and a lower level of human capital endowment; our advanced firms are larger and their employees incorporate more human capital.

The marginal companies are also in a more subordinate position with respect to their main customers. This emerges when the data from the Survey of Industrial and Service Firms are combined with the results of the Bank of Italy’s Business Outlook Survey conducted by telephone

in September and October 2010 on the same sample (Banca d'Italia 2010c). In that edition of the telephone survey, firms were asked to estimate the percentage of total sales from subcontracting in 2010, indicate the share of sales generated by the main customer and assess the possibility of replacing the main customer with other customers. In particular, subcontracting firms were asked: "If your main client decided to stop buying your products, finding another client would be: (i) easy; (ii) difficult; (iii) almost impossible?" Figure 1 shows the balance between responses of "easy" and "almost impossible". The balance is positive for the firms that undertook functional or relational upgrading between 2004 and 2007, indicating relatively little subordination to their main customer and thus less dependence. By contrast, the balance is negative for marginal firms, indicating they are locked in.

## 5. Firms' performance during the crisis

In this section we analyse the performance during the recent recession of the different types of intermediate firms we have identified. We do this by estimating the following equation with the ordinary least squares method:

$$\Delta \ln y_{i,07-09} = \alpha + \beta_1 \ln y_{i,07} + \beta_2 Mar_i + \beta_3 Funz_i + \beta_4 Rel_i + \beta_5 Ev_i + \beta_6 X_{i,07} + \varepsilon_i \quad (1)$$

where:

- $\Delta \ln y_{i,07-09}$  is the (log) growth rate of the performance variable in the period 2007-09 for firm  $i$ ;
- $\ln y_{i,07}$  is the log of the performance variable in 2007;
- $Mar_i$ ,  $Funz_i$ ,  $Rel_i$  and  $Ev_i$  are dummies whose value is 1 if firm  $i$  is, respectively, marginal, functional upgrading, relational upgrading or advanced.

The matrix  $X_{i,07}$  contains a series of start-of-period explanatory variables that capture possible ex-ante differences among the firms. Depending on the specification,  $X_{i,07}$  includes: the share of production workers in the firm's workforce; the export share of sales; a dummy for the profits or losses for the 2007 tax year; and sectoral<sup>12</sup> and territorial (Centre-North and South)

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<sup>12</sup> The notoriously countercyclical food and beverages sector was dropped from the regressions.

dummies. The coefficients  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  e  $\beta_5$  capture the difference, in percentage points, between the performance of intermediate and final firms, all else being equal.

In estimating equation (1) we used two performance variables: the number of hours actually worked and sales in nominal terms. Hours worked is a good proxy for the degree of utilization of the workforce within the firm. During the recent recession the number of Wage Supplementation Fund benefit hours authorized increased significantly, so that many workers, still on the payroll were not actually used in production (see Banca d'Italia 2010a).

The estimation results are presented in Table 3. Columns (1) and (2) give the estimates performed without the controls for the production worker share and for export propensity, and introducing four sectoral dummies.<sup>13</sup> We see that during the recession the firms that had previously undertaken functional upgrading outperformed those that had only undertaken relational upgrading. In particular, other conditions being equal, for functional upgrading firms the rate of variation of sales was 8 percentage points higher and that of hours worked 9 points higher than for final firms, while for relational upgrading firms the rate was about 10 points worse for both indicators. Advanced firms showed no statistically significant differences vis-à-vis final firms, while marginal firms recorded a negative differential of 8 and 10 percentage points respectively.

These results indirectly confirm the insights of Baldwin (2009). The recession, triggering a collapse of world trade, weighed more heavily on firms that had previously increased their involvement in international value chains, the ones we call relational upgrading firms. Instead, the firms that were less exposed to foreign trade but with a diversified, services-enriched production structure, i.e. the ones that had achieved functional upgrading, proved less vulnerable in that they were more resistant to exogenous macroeconomic shocks.

The differentials in growth rates could be partly ascribable to omitted variables. For example, functional upgrading firms' better performance could be due to their higher level of human capital, and relational upgrading firms' negative performance to their greater exposure to foreign markets. In addition, there could be heterogeneous sectoral trends that our classification into four macrosectors fails to capture.

To mitigate the problems that could arise from the omission of significant variables, the estimations presented in columns (3) and (4) include controls for the production worker share and

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<sup>13</sup> Fashion, chemicals and rubber, plastic products, machinery and engineering products, as distinct from other manufactures.



for export propensity,<sup>14</sup> and a more disaggregated sectoral breakdown (19 manufacturing branches, corresponding to the two-digit codes of Ateco, the Italian version of Nace).

The results confirm the preceding estimations. Marginal firms' negative performance emerges clearly with these specifications as well. Similarly, functional upgrading firms' positive performance is confirmed, especially for hours worked. The performance of advanced intermediate firms is again statistically similar to that of final firms.

The growth differentials for relational upgrading firms are negative again, but about 2 percentage points less so for both variables. Firms of this type, rocked by the crisis because of their greater exposure to the fluctuations of foreign demand, nevertheless seem able to latch on to the current international recovery judging from Figure 2, which reports the forecasts for sales growth made in February-March for the 2010 business year for the different categories of intermediate firm.

## 6. Conclusion

The health of Italy's productive economy has been under preoccupied observation for more than a decade. Even taking account of the ambiguities still present in the aggregated statistics (Brandolini and Bugamelli 2009), observers have pointed out the economy's unsatisfactory productivity growth, especially in total factor productivity, Italy's mounting difficulty in competing with emerging countries, and its limited capacity for research and development. Firms that are small and non-dynamic (in sectors exposed to international competition) or inefficient (in sheltered sectors, especially services) tend to generate trade deficits, stagnant real wages, sluggish domestic demand, a stalled economy.

The recession of 2008-09 has heightened these concerns. Observers are wondering whether the signs of vitality that some parts of the system had displayed on the eve of the downturn may not have been snuffed out. Partial, preliminary findings suggest that the answer is no, but the general prospects of the economy are not reassuring. The medium-term macroeconomic scenarios of the main centres of research and analysis project that Italy will return to the low growth of the pre-crisis years, insufficient to achieve the two priority objectives for our economy: to expand employment, particularly among young people, and to reduce the ratio of public debt to GDP (Banca d'Italia 2011).

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<sup>14</sup> Introducing these controls does not create significant problems of multicollinearity. The correlation between export propensity and the dummies *Rel* and *Ev* are, respectively, 0.008 and 0.022. The correlations between the production worker share and the dummies *Funz* and *Ev* are, respectively, 0.016 and -0.100.

This work recognizes that the prospects of the Italian productive economy must be analysed today in a broader context, considering that the terms of production and the international division of labour are changing anew according to paradigms described in what is by now an ample literature. We have summarized these here in the expression “new globalization”: production processes are unbundled into sequences or value chains of tasks, many of which can be offshored, so that value chains become global value chains and international trade tends to turn from trade in goods into trade in tasks. In such a context, “final” firms (those that put all the links of the value chain together to place goods or services on the final market) would be on the way to becoming a minority. Many firms become “intermediate”, in the sense that they form intermediate links of the chain, procuring inputs from firms upstream and supplying outputs to firms downstream. This raises the question of what role Italian firms are playing now and can play in the future in this new world.

Drawing on data from the Bank of Italy’s Survey of Industrial and Service Firms regarding production under subcontracting agreements (a case similar to participation in a value chain), we analysed a representative sample of some 1,500 Italian manufacturing firms, of which 400 intermediate and 1,100 final, comparing intermediate firms’ characteristics and performance during the recession with those of final firms.

To begin with, the results show that intermediate firms differ from final firms by a series of parameters in which they are “worse”: smaller workforce and fewer white-collar workers, lower productivity, smaller percentage of export sales. However, there are pronounced differences among intermediate firms themselves, in relation to their particular conduct within the value chain to which each of them presumably belongs. We identify four types, embracing approximately the same number of firms: firms that move up or “upgrade” in the chain because they are (or become) both multi-task and multi-relational (“advanced” firms); those that upgrade in only one respect or the other; and those that are apparently immobile (“marginal” firms). The differences between advanced firms and marginal ones with regard to the above-mentioned traits (size, efficiency, human capital, international competitiveness) are very substantial, even more marked than those between intermediate firms overall and final firms. Performance during the recession confirms the greater difficulty of the marginal firms; it also shows that, given a collapse of world trade, firms that were moving up in their value chain especially by expanding their network of international relations found themselves worse off than those that had been pursuing a greater diversification of functions.

Over seventy years ago Ronald Coase (1937) explained that a firm’s reason for being is to reduce the high transaction costs that would be incurred by anyone who attempted to produce a good or service simply by purchasing on the market every single input or “task” necessary for production. This theory has been refined, enriched and qualified over the decades, but a firm still has to decide

“whether to outsource or insource (i.e., integrate)” and, if it decides to outsource, “whether to offshore, or not” (Helpman 2006). The advent of ICT has certainly lowered transaction costs everywhere in the world, imparting a powerful impetus to both outsourcing and offshoring. A further incentive to unbundling production and offshoring is the availability in the emerging countries of cheap labour largely unprotected by trade unions, sometimes with high human capital. The problems of the incompleteness of contracts, tied to the working of legal systems and the differences between them from country to country, remain a brake on the phenomenon.

For years many Italian firms have opted to supply intermediate inputs to other companies rather than to produce final goods. Originally this may have been sign of weakness, but in recent years the range of experience has widened and some success stories have emerged. In a global value chain a firm can be the engine (final firm or advanced intermediate firm) or the brake car (marginal intermediate firm). The future of our productive economy depends, not least, on the ability of intermediate firms to free themselves from the monopsony of one major customer and offer their own products on the global market for intermediate goods; and, symmetrically, on the ability of our customer firms to extend the roster of potential suppliers globally in their search for the optimal organizational combination.

The outcome cannot be taken for granted; success is not sure. As with every other advance towards higher productivity and greater capacity for growth, there are impediments in the structural characteristics of Italian firms: widespread reluctance to scale up; rigid governance; family ownership that cramps entrepreneurial daring. But obstacles are also posed by the inadequacy of public policies (Rossi 2009): an opaque, uncertain legal system inimical to efficiency, poorly regulated industrial relations, and welfare policies skewed in favour of the older generations; incomplete protection of competition; an oversized, inefficient and oppressive public administration; an excessive tax burden. Private and public behaviour interact negatively in keeping the economic system paralyzed by conflicting corporative interests.

In the past, Italian firms have demonstrated repeatedly that they can be leading actors in the international economy. We are now at a crucial passage: only an organic and conscious “growth policy” can enable us to negotiate it successfully.

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Table 1

**FINAL AND INTERMEDIATE FIRMS:  
DESCRIPTIVE STATISTICS**

	Final firms	Intermediate firms
Number of workers	79.3	71.1
Sales per worker (1)	298.3	202.5
White-collar share (2)	31%	27%
Exports/sales	32%	24%

Source: Based on data from Banca d'Italia (2008).

Weighted averages for 2007. Intermediate firms are those whose subcontracting sales is equal to 10 per cent or more of total sales in 2004 and 2007.

(1) Thousands of euros. (2) Clerical workers and managers as a percentage of total work force.

Table 2

**INTERMEDIATE FIRMS:  
ADVANCING UP THE VALUE CHAIN**

	Marginal	Functional upgrading only	Relational upgrading only	Advanced
Sample size	108	97	92	102
Number of workers	59.2	57.8	82.9	86.5
Sales per worker (1)	162.5	197.3	234.7	224.2
White-collar share (2)	18%	29%	24%	38%
Exports/sales	20%	21%	29%	27%

Source: Based on data from Banca d'Italia (2008) and Banca d'Italia (2005).

Weighted averages for 2007.

(1) Thousands of euros. (2) Clerical workers and managers as a percentage of total work force.

Table 3

**PERFORMANCE OF INTERMEDIATE FIRMS  
IN THE RECESSION OF 2008-09  
BY TYPE OF FIRM**

	(1)	(2)	(3)	(4)
	Sales	Hours worked	Sales	Hours worked
Marginal	-0.078* (0.046)	-0.096** (0.032)	-0.083* (0.046)	-0.087** (0.032)
Functional upgrading only	0.080** (0.036)	0.087*** (0.023)	0.067* (0.034)	0.082** (0.022)
Relational upgrading only	-0.094** (0.047)	-0.119** (0.037)	-0.077* (0.046)	-0.101** (0.037)
Advanced	0.017 (0.040)	-0.025 (0.029)	-0.015 (0.040)	-0.047 (0.030)
Log sales at beginning of period	-0.006 (0.006)	-	-0.001 (0.006)	-
Log hours worked at beginning of period	-	-0.017** (0.005)	-	-0.017** (0.005)
Production worker share	-	-	-0.103** (0.045)	-0.145*** (0.030)
Exports/sales	-	-	-0.096** (0.030)	-0.048** (0.023)
No. sectoral dummies	4	4	19	19
Geographic dummies	YES	YES	YES	YES
Dummy for operating results in 2007	YES	YES	YES	YES
Constant	-0.236** (0.069)	0.091 (0.069)	-0.188** (0.087)	0.197** (0.077)
R <sup>2</sup>	0.04	0.08	0.09	0.12
No. observations	1,527	1,528	1,527	1,528

Source: Based on data from Banca d'Italia (2005), Banca d'Italia (2008) and Banca d'Italia (2010b).

Method of estimation: OLS. Estimates obtained excluding the 1<sup>st</sup> and 99<sup>th</sup> percentiles of the dependent variable. Columns (1) and (2) do not include controls for production worker share and export share. Standard errors in brackets. \* significant at 10%, \*\* significant at 5%, \*\*\* significant at 1%.



Figure 1

**EASE IN REPLACING MAIN CUSTOMER  
BY TYPE OF FIRM**  
*(percentage points)*



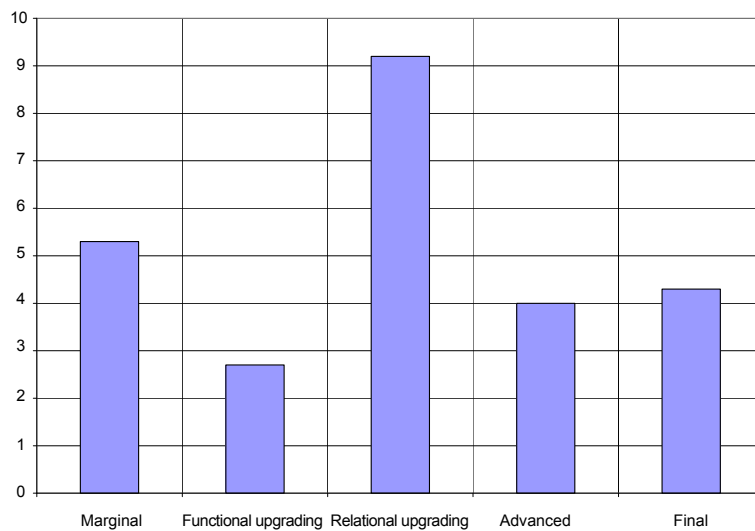
Source: Based on data from Banca d'Italia (2008) and Banca d'Italia (2010c).

Weighted frequencies (for the construction of sample weights, see Banca d'Italia, 2010c). Balance between answers "easy" and "almost impossible" to the question: "If your main client decided to stop buying your products, finding another client would be: (i) easy; (ii) difficult; (iii) almost impossible"?

Figure 2

**FORECAST SALES FOR 2010  
BY TYPE OF FIRM**

*(per cent)*



Source: Based on data from Banca d'Italia (2008) and Banca d'Italia (2010b).

Growth rates with respect to previous year. Forecasts made in February-March 2010 for the current year.