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# Review Bankpedia

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## **Editor's Preface**

**Chiara OLDANI<sup>1</sup>**

This issue of Rivista Bankpedia - Bankpedia Review publishes contributions that focus on growth, investments and reforms: 3 keys for effective recovery.

G. Aversa describes the measures implemented at the domestic and European level in order to reverse the negative effects of the economic and financial crisis; the Nuova Sabatini is in fact a law for small and medium enterprises (SMEs) for financing the capital goods purchase, while cohesion policy is implemented at the EU level and sets out priorities and investments of the European Union in the period 2014-2020.

L. Monteforte and G. Zevi empirically investigate the effects of the recession on the manufactory industry that used to be a very relevant one in the Italian productive system.

D. D'Angelo describes the Microcredit, its challenges for growth and relevance for those who cannot access traditional banking credit.

C. Oldani underlines the main risks left out in the most recent international financial regulation on derivatives.

This issue of Banked Review misses the precious help of Catia Ciprianetti, the editorial secretary of Assonebb who passed in January 2016.

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<sup>1</sup>Chiara OLDANI, Director of Research, ASSONEBB



## CAPITAL GOODS - NUOVA SABATINI

Giovanni AVERSA<sup>1</sup>*Abstract*

The Italian government, in order to reverse the effects of the recent economic and financial crisis, adopted the Decreto-legge Del Fare (art. 2 decreto-legge n. 69/2013) with anti-crisis measures for small and medium enterprises (SMEs) with financing for the capital goods purchase. La "Nuova Sabatini", new edition of the "Legge Sabatini" l. 28.11.1965 n. 1329, is the facilitation provided by the Ministero dello Sviluppo Economico (MiSE) and Cassa Depositi e Prestiti (CDP) for all companies with interest to upgrade plants, buy new equipment, invest in hardware, software and digital technologies. The new facility is intended to improve the competitiveness of the country economy and facilitate access to credit for micro, small and medium enterprises.

*Regulatory Framework*

The Decreto-legge Del Fare, especially the art. 2 decreto-legge n. 69/2013, was implemented November 27, 2013 by the Decree of MiSE, in consultation with the Ministro dell'Economia e delle Finanze and, with the circular of 10 February 2014 n. 4567 by the General Director for incentives to companies, have been given instructions for the intervention. Moreover, in the GURI no. 37 of February 14, 2014, were defined patterns of application and the documents to be submitted for granting of public funding.

With the Law December 23, 2014, n. 190 (Stability Law 2015) the ceiling of CDP, initially amounting to 2.5 billion euro, was increased up to 5 billion. The budget, cov-

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<sup>1</sup> Giovanni AVERSA, Advisor to Human Power Srl

ering the years 2014-2021, for the payment of the contribution to partially hedge of the interest on bank loans (initially 191.5 million euro), as provided by the Stability Law 2015, now amounts at 385,8 million euro.

The regulations for the "Nuova Sabatini" concerns specifically: *Art. 2 of decreto-legge 21 June 2013, n. 69; Decreto interministeriale 27 November 2013; Circular of 10 February 2014, n. 4567; Circular of 26 March 2014, n. 10677; Circular of 24 December 2014, n. 71299; Arti. 1, comma 243, of law 23 December 2014, n.190 (Stability Law 2015) and Art. 8 of decreto-legge 24 January 2015, n.3.*

#### Features

*Cassa Depositi e Prestiti (CDP)* has set a ceiling of resources that banks members to the MiSE-ABI-CDP conventions or leasing companies, if they have a bank guarantee issued by conventions members, they can grant loans to SMEs in respect of investments covered by the measure, until 31 December 2016.

The MiSE granting a contribution to SMEs, which covers part of the interest paid by companies on bank loans (as above mentioned), in relation to investments made. This contribution is the amount of the interest, calculated on a repayment plan with the conventional six-monthly installments, at the rate of 2.75% per annum for five years.

SMEs have the opportunity to benefit the Guarantee Fund for Small and Medium-sized Enterprises, to the maximum extent permitted by the current law (80% of the loan), on the bank loan, with priority access.

Requirements. Are eligible for aid the micro, small and medium size enterprise that, to the date of application submission, have these requirements:

- Headquarters in Italy
- Regular constitution and registration in the Companies Register or Register of fishing companies
- In the full and free exercise of their rights (should not be in a state of voluntary liquidation and / or subject to bankruptcy proceedings)

- Under such conditions as to be a company in difficulty as identified in the GBER. Are admitted to "*Nuova Sabatini*" companies operating in all productive sectors including agriculture and fisheries. Can apply even the company of Transport, in accordance with the requirements imposed in the European Regulation applicable to the sector (GBER), and also the enterprise of the Tertiary sector that intends to renew the hardware / software system. The sectors excluded are: coal industry, financial and insurance activities, manufacture of products which imitate or substitute milk or milk products, export-related activities and interventions upon the use of domestic over imported products.

Facilitation. The facility consists in financing in the form of low-interest loans granted by banks and financial intermediaries members of conventions between the MiSE, *Associazione Bancaria Italiana (ABI)* and *Cassa Depositi e Prestiti (CDP)*.

Eligible initiatives. Eligible investments must be aimed at:

- Creation of a new production unit;
- Expansion of an existing production unit;
- Diversification of production of a plant;
- Fundamental change in the overall production process of an existing production unit;
- Acquisition of assets directly linked to a productive unit.

Investments must be started after the request for access to contribution, except the investments in the agricultural sector which can be started only after the decision to grant aid.

Eligible expenses. Eligible expenditure shall cover the purchase or acquisition in leasing of machinery, equipment, capital goods and business equipment for productive use, as well as hardware, software and digital technologies, classified in the balance sheet to the voices B.II.2, B.II.3 B.II.4 and Article 2424 of the civil Code.

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(<http://www.sviluppoeconomico.gov.it/index.php/it/incentivi/impresa/beni-strumentali-nuova-sabatini/erogazione-contributi>)

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([http://www.sviluppoeconomico.gov.it/images/stories/documenti/Leaflet\\_Beni\\_Strumentali\\_v7.pdf](http://www.sviluppoeconomico.gov.it/images/stories/documenti/Leaflet_Beni_Strumentali_v7.pdf))

## COHESION POLICY: PRIORITIES AND INVESTMENTS OF THE EUROPEAN UNION IN THE PROGRAMMING PERIOD 2014-2020

Giovanni AVERSA<sup>1</sup>

### *Abstract*

*The cohesion policy, also known as regional policy, is the main European Union policy used to reduce the development gap between regions in the Member States, as well as, it is the most important investment instrument for the Eu. The cohesion policy is divided into cycles planning for 7 years. The regulations governing the last investment cycle for the period 2014-2020 was adopted in December 2013 by the Council of the European Union with an allocation of 351.8 billion euro, approximately one third of the EU budget, to which is added co-financing of individual Member States. The implementation of cohesion policy and the use of available resources is based on three main funds: European Regional Development Fund (ERDF), European Social Fund (ESF), the Cohesion Fund. After identifying the priorities, these resources will be used to finance transport infrastructure and communications, to support small and medium-sized enterprises (SMEs) in the processes of innovation and competitiveness, to create jobs, to strengthen and modernize education systems and to create social inclusion. The main goal of this new programming of cohesion policy, in accordance with the "Europe 2020", is to achieve a growth inclusive, smart and sustainable.*

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<sup>1</sup> Giovanni AVERSA, Advisor to Human Power Srl

*EU legislation*

Cohesion policy is born from Treaty of Rome (1957). In its preamble, in fact, it expressly refers to the need "to strengthen the unity of their economies and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less-favoured regions". Most recently cohesion policy is legitimacy in 5 articles of the Treaty of Lisbon (2010), from 174 to 178.

Divided into planning cycles for 7 years, the resources of cohesion policy are based on the Multiannual Financial Framework (MFF), which provides the financial planning of the European Union.

On the Official Journal of the European Union, series L 347 of 20 December 2013 were published the Regulations on the Structural Funds and investment in Europe (SIE) for the new programming period 2014-2020. The next programming cycle is, in fact, governed by the following new rules:

N°1 Regulation contains common provisions: on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Fund for Maritime Affairs and Fisheries (EU Regulation No. 1303 / 2013). The Regulation provides for the adoption by the European Commission, the Common Strategic Framework (CSF), which aims to suggest guidelines for the definition of investment priorities for Member States and for the regions, as well as the implementation of policy cohesion;

N° 5 Specific regulations to each fund: ERDF (EU Regulation n. 1301/2013), the ESF (EU Regulation n. 1304/2013) Cohesion Fund (EU Regulation n. 1300/2013), EAFRD (EU Regulation. 1305/2013), EMFF (Regulation pending approval and publication);

N° 2 Regulations specific to: the goals of "European territorial cooperation" Regulation (EU) No. 1299/2013 and the European grouping of territorial cooperation (EGTC) Regulation (EU) No. 1302/2013.

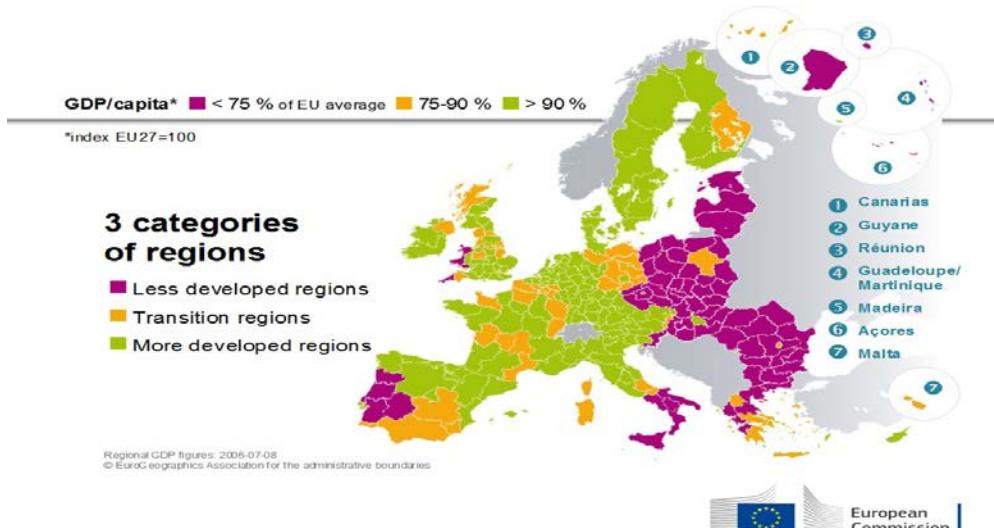
### *Functioning Cohesion policy: the role of Commission, Member States and Regions*

The Cohesion policy is characterized by governance based on the work between the European Commission, Member States and local authorities. In the implementation of this policy therefore are developed different stages involving, with different grade, these actors.

A preliminary phase is the identification of target areas of funding (regions). The level of support in the funds allocation and the national contribution or "co-financing rate" to be allocated to each region depends on their economic development. The classification of regions (Figure 1) concerns three levels identified according to the GDP per capita:

- Less developed regions (GDP / capita < 75% of the eu-27);
- Transition Regions (GDP / capita between 75% and 90% of the average u-27);
- More developed regions (GDP / capita > 90% of the eu-27 average).

*Figure 1: Classification Regions European Union for per capita GDP*



Source: European commission

In addition to the identification of the regions where allocate the funds, the implementation of cohesion policy is characterized by further steps. Specifically, the budget and the rules about it are mutually agreed by the European Parliament and the EU Council of Ministers on the basis of a Commission proposal. Common measures are taken in addition to specific rules for each fund ERDF, ESF, CF, EAFRD and EMFF (to the rules on the 2014-2020 programming see above paragraph EU legislation).

A third phase is identified in the formulation of the priorities of cohesion policy on the basis of consultations between the Commission and Member States. For this reason, the implementation of cohesion policy is needed "partnership agreement" between the member state and the European Commission. Specifically, the partnership agreement is the document prepared by a Member State in cooperation with the EU and national local institutions, defining strategies, methods and expenditure priorities. Each Member State then draws up an partnership agreement it proposes a list of Operational Programmes (OPs) for concrete action. The OP can relate entire countries or entire regions of the EU, but also cooperation activities involving more than one country.

Afterwards, the Commission negotiates the final terms of investment plans (Partnership agreement and OPs) with national and regional authorities. The negotiations with the Member State ends with the approval of the final partnership agreement by the European Commission.

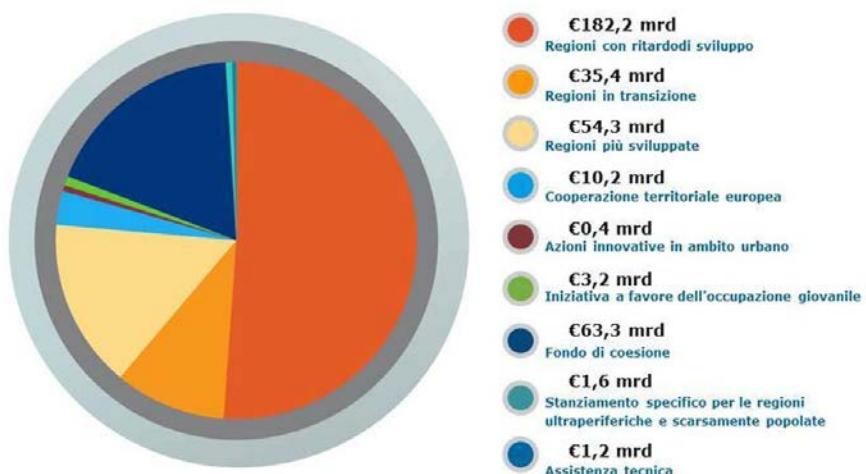
In the last phase of implementation, specific OPs are actuated by the EU countries and their regions. This means selecting, monitoring and evaluating hundreds of thousands of projects. The work is organized by "managing authority" in each country.

### Programming 2014-2020: priorities, investment and funds

Cohesion policy is the main investment policy of the European Union because it uses about one-third of its total budget. There are many changes from the previous programming period 2007-2013, as the introduction of a single set of rules for all funds, the introduction of prerequisite for financing, the strengthening of the urban dimension and the struggle for inclusion social, the possibility of suspending the allocation of funds to the Member State that does not respect the economic provisions of European Union, but most of all it is essential to align the new cohesion policy to the "Europe 2020" strategy. The 2014-2020 programming period, in fact, it provides the general framework for investment (Common Strategic Framework) to achieve the objectives of "Europe 2020", mobilizing up to 351.8 billion of Euros for the regions, the Eu cities and the real economy (as shown in Chart 1). Cohesion policy is also an attractor of additional public and private funding, for this reason, the impact of cohesion policy for the period 2014-2020 amounting to EUR 500 billion approximately.

Chart 1: Funds of Cohesion Policy from 2014 to 2020

#### Fondi della Politica di coesione 2014-2020 (€351,8 mld)



Source: European commission

The investments planned by the new programming will contribute to the development in several economic key sectors, such as education, employment, energy, environment, internal market, research and innovation.

To do this, cohesion policy establishes 11 thematic objectives to support growth for the period 2014-2020:

1. Strengthening research, technological development and innovation;
2. Enhancing access to, and use and quality of, information and communication technologies;
3. Enhancing the competitiveness of SMEs;
4. Supporting the shift towards a low-carbon economy;
5. Promoting climate change adaptation, risk prevention and management;
6. Preserving and protecting the environment and promoting resource efficiency;
7. Promoting sustainable transport and improving network infrastructures;
8. Promoting sustainable and quality employment and supporting labour mobility;
9. Promoting social inclusion, combating poverty and any discrimination;
10. Investing in education, training and lifelong learning;
11. Improving the efficiency of public administration.

The investments from the European Regional Development Fund (ERDF) finances all 11 targets, but those, from 1 to 4, are the main investment priorities. The main priorities of the European Social Fund (ESF) are the targets of 8 to 11, but the fund also finances from 1 to 4. Finally, the Cohesion Fund targets finances from 4 to 7 and 11.

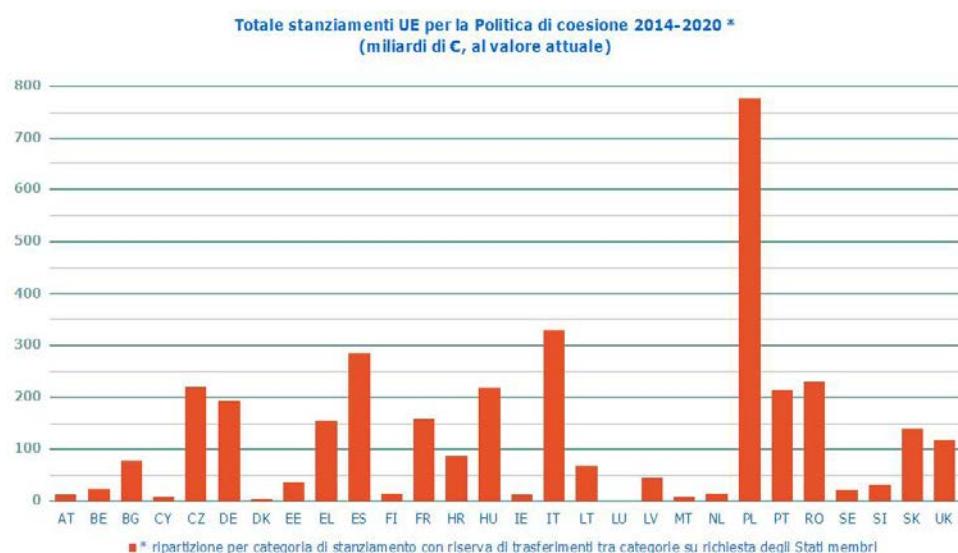
### *Cohesion Policy and Italy*

The partnership agreement between Italy and the European Commission was approved 29 October 2014 and defined the strategy for the use of structural funds and European investment in the next seven years of the programming of the cohesion policy. The Italian priorities identified in the partnership agreement include: the de-

velopment of a business environment for innovation, infrastructure construction, high-performance and efficient management of natural resources, the increased level of participation in the labor market, the promoting social inclusion and improving the quality of human capital, the quality, effectiveness and efficiency of public administration.

During 2014-2020 period, Italy will manage over 60 Regional Operational Programmes and 14 National Operational Programmes for about 44 billion euro. This amount makes Italy the second Member State for the EU budget, after Poland (as shown in Chart 2).

*Chart 2: Budget allocation by Member State*



Source: European Commission

Of these 44 billion total, 32.2 billion derived from the Cohesion Fund (20.6 billion from the ERDF - European Regional Development Fund, 10.4 billion from the ESF - European Social Fund, 1.1 billion for the European territorial cooperation and 567 mln of YEI, the youth employment initiative) which is going to add up to 10.4 billion

EAFRD - European Agricultural Fund for rural Development and to the 537 million of the EMFF - European maritime and fishing.

The cohesion funds will be distributed among the regions, with a greater impact on the most disadvantaged areas:

- 22.2 billion euro to the less developed regions (Campania, Puglia, Basilicata, Calabria and Sicily);
- 1.3 billion Euros to the transition regions (Sardinia, Abruzzo and Molise);
- EUR 7.6 billion with more developed regions (Valle d'Aosta, Piedmont, Lombardy, Liguria, Veneto, South Tyrol, Trentino, Friuli-Venezia Giulia, Emilia Romagna, Tuscany, Marche, Umbria and Lazio).

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## AN INQUIRY INTO MANUFACTURING CAPACITY IN ITALY AFTER THE DOUBLE-DIP RECESSION

Libero MONTEFORTE<sup>1</sup>, Giordano ZEVI<sup>2</sup>

### *1. Introduction*

Between 2008 and 2013 the Italian economy was hit by two consecutive recessions, losing 9.0% of GDP from peak to trough, making this the biggest shock to Italy's economy, in peacetime, since 1861.<sup>3</sup> Most of the fall was concentrated in the manufacturing sector, where production fell by 23.5%. In response to these developments, capital and labor demand have contracted by sizable amounts: investment is now more than one fourth below the peak of 2007 and in the same period around one million of people lost their jobs.

In this paper we assess the combined effect of the double-dip recession on the potential output of the manufacturing sector, using three methods, based on a production function approach, on surveys among industrial firms and on statistical filters. In Sections 2 to 4 we also assess, using each method in turn, the extent to which the result for the whole manufacturing sector hinges on developments in specific sub-sectors.

The three methods do not identify the same definition of potential. The survey-based method, dealt with in Section 2, in line with Malgarini and Paradiso (2010) utilizes a concept close to the 'full capacity' of firms' productive physical capital. The statistical filtering approach (Section 3) captures the long-run properties of the time series of industrial production, deriving potential output by assuming that over long periods

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<sup>2</sup> Giordano ZEVI, Directorate General for Economics, Statistics and Research, Bank of Italy

<sup>3</sup> See Baffigi (2011)

the manufacturing sector operates, on average, close to potential. Finally, the production function approach, described in Section 4, is closer to an economic definition of potential output, and rests on the assumption that production capacity which is technically feasible takes place when economically convenient.

With these caveats, we find that the peak-to-trough (2007-13) loss of productive capacity in the Italian manufacturing sector amounts to about 11% according to the lowest estimates and reaches 17% according to the highest. The overall contraction of potential output in the manufacturing sector conceals, regardless of the chosen approach, non-trivial heterogeneity among subsectors. Large losses of potential capacity are recorded in the rubber, plastic and non-metallic mineral sector, as well as in the wood and in the basic metals and fabricated metal products sectors. On the other hand, capacity increased in the pharmaceutical sector and was broadly stationary in the food, beverages and tobacco sector.

This quantification of the loss of potential production allows us to identify the remaining slack in each of the segments of the manufacturing sector which, in turn, is likely to affect both the speed of the (recently started) economic recovery and the strength of demand-driven inflationary pressures.

Given that in many manufacturing sectors production was on a declining trend well before the crisis, the 2007-13 loss in potential output may provide an inaccurate estimate of the loss of capacity due to the crisis. In order to identify the role of the crisis with more precision we conduct a simple counterfactual exercise, in which actual developments in potential production are compared with an evolution of capacity in 2008-13 in line with pre-crisis historical trends.

In a few cases the findings from the counterfactual exercise differ considerably from those based on the historical data. For example, in the textiles, wearing apparel and leather sector, according to the counterfactual analysis there was no sharp acceleration in the fall of potential output during the crisis, contrary to what a simple comparison of potential in 2007 and 2013 would suggest. In other cases, such as the basic

and fabricated metal products sector and the machinery and equipment sector, the downturn in capacity during the crisis was relatively large. Finally, in some sectors, such as food, which withstood the double-dip recession well, the actual decline in potential output from 2007 to 2013 was modest overall but the fall versus the counterfactual scenario was instead substantial.

## 2. Survey based methods

In this section we follow the survey-based methodology used for the whole manufacturing sector by Margarini and Paradiso (2010) and De Nardis (2013), to gauge both the overall loss of capacity output and the contribution of its subsectors.

Potential production (PP) is computed as the ratio between the Manufacturing Production Index (MPI) and the Capacity Utilization rate (CU), obtained from survey data:<sup>4</sup>

$$PP = MPI / CU * 100 \quad (1)$$

A bottom-up approach, in which the loss in potential manufacturing output is measured by first computing the loss attributable to each NACE rev.2 activity sector and then aggregating the results, shows that from 2007 to 2013 the reduction in potential manufacturing production amounted to 16.5%; using a top-down approach (i.e., directly applying eq. (1) to the overall manufacturing sector), the loss is roughly the same (16.7%; Table 1 and Chart B1).

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<sup>4</sup> The series of CU are those obtained by Istat when manufacturing firms answer the question 'During the quarter your current rate of capacity utilization with respect to the maximum was ... (in percentage)?'. The questionnaire with the exact wording of the question in Italian is available here:

[http://ec.europa.eu/economy\\_finance/db\\_indicators/surveys/questionnaires/index\\_en.htm](http://ec.europa.eu/economy_finance/db_indicators/surveys/questionnaires/index_en.htm).

The resulting potential production refers to a 'technical' concept of potential output, related to the production possibility frontier, and disregards the incentives for economic activity.

Table 1

**Capacity changes by activity sector  
(percentages)**

<b>Capacity changes by activity sector and MIGs (2007-13)</b>	<i>Survey based method</i>		<i>HP Filter</i>		<i>CF Filter</i>	
	Baseline	Cfactual	Baseline	Cfactual	Baseline	Cfactual
CA Manufacture of food, beverages and tobacco products	-1.8	-9.4	-1.4	-11.8	-1.6	-4.5
CB Manufacture of textiles, wearing apparel and leather	-18.2	-8.0	-16.3	-9.1	-17.2	-9.8
CC Manufacture of wood, paper products and printing	-23.3	-27.8	-24.8	-28.9	-27.3	-31.5
CD Manufacture of coke and refined petroleum products	-18.1	-21.6	-22.0	-19.0	-24.2	-20.4
CE Manufacture of chemicals	-12.9	-25.6	-12.7	-18.9	-15.9	-21.1
CF Manufacture of pharmaceutical products	10.1	5.6	5.8	1.7	6.1	1.8
CG Manufacture of rubber, plastic and non-metallic mineral products	-24.0	-24.9	-25.4	-27.3	-27.8	-30.0
CH Manufacture of basic metals and fabricated metal products	-21.7	-30.6	-19.0	-25.9	-22.3	-28.6
CI Manufacture of computer, electronic and optical products	-17.3	3.4	-17.3	-0.1	-18.5	0.3
CJ Manufacture of electrical equipment	-28.7	-22.6	-27.9	-24.0	-31.3	-27.3
CK Manufacture of machinery and equipment n.e.c.	-20.8	-30.0	-15.7	-23.3	-18.2	-25.0
CL Manufacture of transport vehicles	-18.6	-17.7	-20.5	-25.5	-26.6	-29.6
CM Other manufacturing	-9.5	-10.0	-10.8	-15.9	-11.9	-17.6
<b>TOTAL MANUFACTURING (1)</b>	<b>-16.7</b>	<b>-19.4</b>	<b>-15.4</b>	<b>-17.9</b>	<b>-17.9</b>	<b>-20.1</b>
Consumer durables	-27.0	-24.4	-28.8	-29.7	-31.4	-32.7
Consumer non-durables	-5.9	-6.2	-5.6	-7.6	-6.6	-8.6
Consumer TOTAL	-9.7	-9.2	-9.9	-11.4	-11.3	-12.9
Energy	-5.3	-15.6	-14.0	-22.2	-16.0	-23.8
Intermediate goods	-22.7	-26.0	-21.8	-24.1	-24.6	-26.6
Capital goods	-16.5	-20.9	-12.9	-18.7	-16.2	-21.0

Source: own calculations based on Istat data; percentage points.

Notes: (1) direct estimates

Excluding the manufacture of pharmaceutical products (in which potential output rose), all activity sectors and all Main Industrial Groupings (MIGs) show a fall in production capacity ranging from -1.8% in the food, beverages and tobacco sector to -28.7% in the electrical equipment sector (Chart B2). Based on 2010 weights, the main culprits of the reduction in manufacturing potential are: the basic metals and fabricated metal products sector (3.5pp); the machinery and equipment not elsewhere classified (n.e.c.) sector (2.8pp); the manufacture of rubber, plastic and non-metallic mineral products (2.3pp). These sectors, together accounting for slightly less than 40% of total manufacturing production, explain more than 50% of the potential loss (Table B2).

In interpreting these developments we should consider that potential output in some sectors was already contracting before 2008 (see Chart B2).<sup>5</sup> We therefore conduct a counterfactual exercise, in which for each manufacturing sector we assume a rate of growth in 2008-13 in line with the respective average growth rates over 1999-2007; we further assume that, without the crisis, the survey based measure CU would have converged to the average recorded in the pre-crisis period, 1999-2007. The resulting simulated capacity in 2013 can be interpreted as an estimate of the potential output that could have been achieved in each sector, had the Italian economy not been stricken by the double-dip recession.<sup>6</sup> According to this counterfactual exercise (Table B2, column 2), the total loss amounted to 19.4%. While the overall figure is not very different from that of the peak-to-trough comparison, the assessment of the role of individual sectors may deviate considerably from the one above. The contribution to the overall fall in manufacturing capacity by sectors that were already shrinking before the crisis is drastically downsized (textiles and computer production, and the electrical equipment sector); on the contrary, for the pharmaceutical, food industry, and machinery and equipment sectors, which had experienced an expansion of capacity in the run-up to the crisis, the impact of the latter is magnified by counterfactual analysis. Overall, the sectoral breakdown of the total manufacturing loss appears more polarized on the basis of counterfactual analysis: the basic metals and fabricated metal products, and the machinery and equipment n.e.c. sectors (whose weight in the MPI amounts to less than 30%) account for about 46% of the loss of capacity (37.1% if one looks at the decline from 2007 to 2013).

As a sensitivity exercise, the counterfactual analysis was repeated by attributing to each sector, for the 2008-13 period, the same average growth as in 1992-2007. In this case the total loss for the manufacturing sector reaches almost 23% (Chart 4).

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<sup>5</sup> See Accetturo et al. (2013).

<sup>6</sup> Note that by 2013 the simulated CU reached the average 1992-2007 rate, therefore most of the change is attributable to the MPI dynamics.

## 2.1 A validation of the capacity utilization data

In order to validate the results of the survey based method, we make use of the microdata of the Bank of Italy's *Survey of Industrial and Service Firms* (Invind) and of a new measure based on electricity consumption. Invind is a sample survey of industrial and service firms with 20 or more workers conducted each year in spring; while the survey has been carried out since 1972, microdata are available only since the mid-nineties.

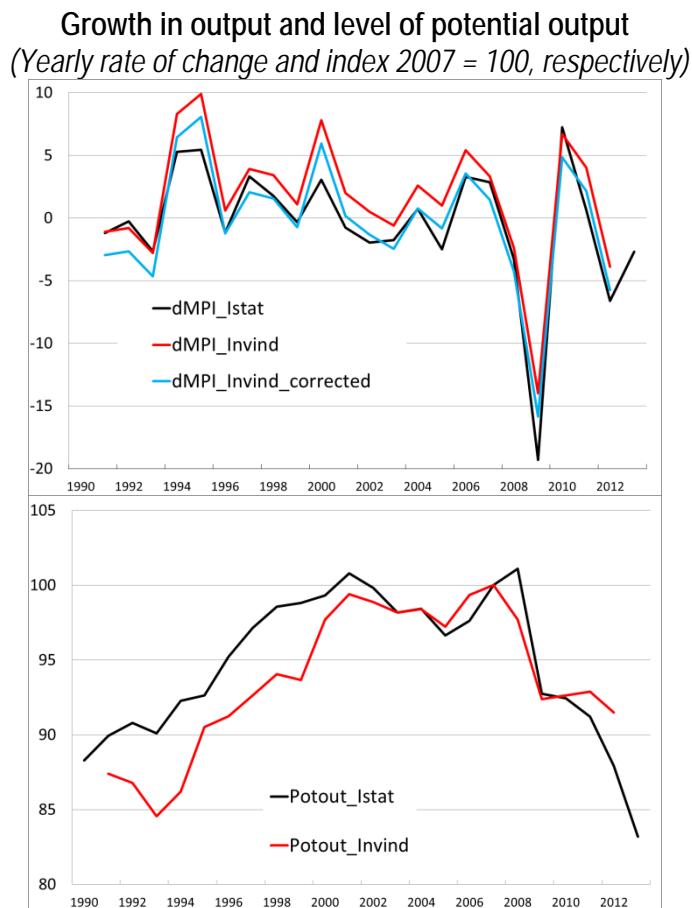
Manufacturing firms are asked to report their rate of capacity utilization, turnover and the average annual percentage change in the selling prices of their own goods and services. The answers are used to derive a measure of each individual firm's actual output and, by aggregating across firms, (a proxy of) the MPI series. Equation (1) can then be computed using the latter aggregate figure, combined with the CU rate, in order to recover series of potential output for both the manufacturing sector and its subsectors.<sup>7</sup> Chart B3 compares the Istat and the Bank of Italy survey measures of CU. The dynamics are very similar in most sectors; higher CU in Invind data reflects sample selection, as this survey mostly includes large firms. In some sectors, however, the possibility of using Invind data as a comparison with Istat is hampered by the small number of observations. Chart 1 (left panel) plots the average growth rate of real output derived from Invind data against the one derived from official Istat MPI data. Given the clear upward bias in Invind, we correct its growth rate by subtracting the difference between the average growth rate of Invind and that of the Istat series from 1992-2007 and we use this corrected series to compute the potential output, plotted in Chart 1 (right panel), together with the estimates derived from Istat data. Invind data are only available up to 2012; in that year, the cumulated loss with

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<sup>7</sup> More details on the sample and the weights structure are in Banca d'Italia (2013). In our calculations we build the output series by recovering the real growth rate in output at the firm level (considering only the firms present in year T and year T-1) and aggregating them weighting by the firm average employment in year T.

respect to 2007 amounted to 8.5%, vs. 12.1% according to the Istat data for the same period; the dynamics are remarkably similar.

Chart 1



Source: Own calculations based on Istat and Invind data

Following Burnside et al., (1995), we also construct an index of unutilized capacity based on the ratio between electricity consumption and the stock of capital. We combine data on electricity consumption in the manufacturing industry (provided by Terna, the Italian electricity transmission grid operator) and on the stock of net capital (by Istat). The ratio is rescaled to equal the Istat CU rate in 1991. The bottom of Chart B3 shows that this electricity based measure tracks the changes of the Istat series well, but contracted more sharply during the recession.

### *3. Statistical filters methods*

A second approach to estimate potential output rests on statistical filters. Specifically, we apply the Hodrick-Prescott filter (HP) and the Band-Pass Christiano-Fitzgerald filter (CF) to the quarterly series of industrial production. The overall loss thus obtained is in line with those estimated with the survey based method: the average of the two filters indicates that total manufacturing capacity loss during the crisis amounted to 16.6% (15.4% with HP; 17.9% with CF), which is basically the same estimate as with the survey based approach.

Looking at the sectoral breakdown, there is only one sector for which the discrepancy between the statistical filter estimate and the survey based one is larger than 3 pp in absolute value (machinery and equipment n.e.c.); only in two other sectors does it exceed 1.5 pp; overall, the mean absolute discrepancy is 1.0 pp, pointing to fairly consistent findings with these two methods (Table B2).

The counterfactual experiment leads to similar conclusions.<sup>8</sup> The total loss amounts to 19.0% in the average of the two filters (17.9% for HP and 20.1% for CF). At a sectoral level, the mean absolute discrepancy with respect to the survey-based measure is somewhat larger (1.6 pp, with four sectors differing more than 4 pp).

### *4. Production function approach*

The estimates of the dynamics of production capacity based on surveys and statistical filters are very much in line with the dynamics of output itself. Those methods ignore the economic motivations underlying production choices and the demand for production factors. The production function (PF) approach overcomes these limitations, by allowing an explicit role for economic considerations in determining production and factor demand.

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<sup>8</sup> As in section 2, the counterfactual values are computed projecting from 2008Q1 onwards the pre-crisis growth trend.

Consider a standard Cobb-Douglas function:

$$Y = TFP \cdot L^\alpha \cdot (U_k \cdot K)^{1-\alpha} \quad (2)$$

The level of production (Y) is the result of the contribution of employment (L), the stock of capital (K) and multi-factor productivity (TFP). The overall contribution of capital depends on K itself, as well as on a measure of capital utilization ( $U_k$ ).

In this framework, potential output is the production that can be attained if labour, capital,  $U_k$  and the TFP are at their respective equilibrium levels. Potential employment ( $L^*$ ) is derived according to the following relation:

$$L^* = LF^* \cdot (1-NAIRU) \quad (3)$$

where  $LF^*$  is the trend labour force participation and NAIRU is the Not Accelerating Inflation Rate of Unemployment.

This representation of potential output relies on a number of crucial assumptions. The choice of the simple standard Cobb-Douglas in equations (2) and (3) implicitly amounts also to assuming: a) malleability of capital and fixed elasticity of substitution between factors; b) constant returns to scale; c) the existence of an equilibrium rate of unemployment (NAIRU). The equilibrium values of the various factors are at least to some extent obtained with statistical filters: in our case, the estimates of the equilibrium values of  $LF^*$  and TFP are extracted by means of a Christiano-Fitzgerald filter, applied to actual data.

One advantage of the PF approach is that it allows us to quantify the contribution to potential output of each production factor. In our case, this advantage also has a drawback: since we are interested in the potential production of one sector of the economy, the labour input should in principle be appropriately defined at a sectoral level too. In this paper, the NAIRU for the whole Italian economy is used for the manufacturing industry and all its subsectors.<sup>9</sup>

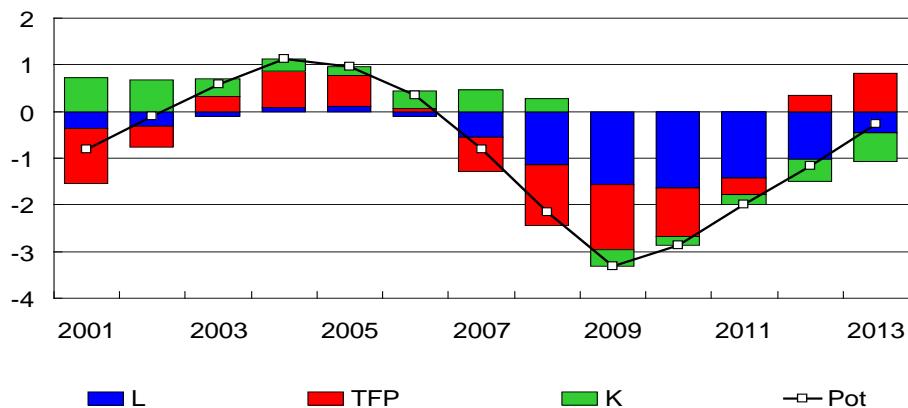
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<sup>9</sup> The perfect homogeneity of the NAIRU across sectors implicitly relies on the hypothesis of perfect mobility of labour across sectors.

We estimate potential output for the various sectors (NACE rev.2) and for manufacturing as a whole (see Appendix A for a description of the data). In Chart B4 we compare the series of the estimated potential output, with and without the  $U_k$  correction. In the standard estimates, which do not correct for  $U_k$ , the 2013 potential in the manufacturing industry was 11.3% lower than in 2007. This estimate is considerably smaller than the one obtained with the previous two approaches (Table 3). These findings were to be expected: the PF approach hinges on computing the potential output that is consistent with the long-run equilibrium levels of the determinants of production; therefore, the resulting potential output series tends to be relatively less volatile. Despite that difference, the PF approach leads to conclusions that are qualitatively similar to the ones reached above: the size of the recent shock was unprecedented by historical comparison. Indeed, in the last six years the potential of the manufacturing sector recorded the largest fall since the start of the series in 1970; in 2013 it was back to the level of about twenty years earlier.

Chart 2

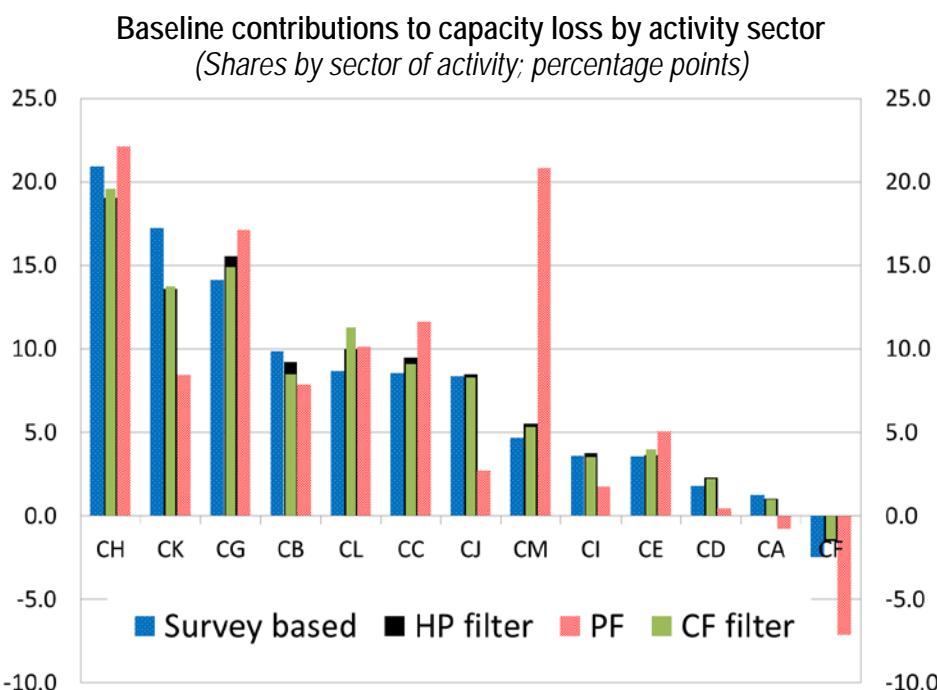
### Contribution to potential output growth (Yearly rate of change)



Source: Own calculations based on Istat and Terna data. L: contribution of labour; K: contribution of capital; TFP: contribution of the TFP ; Pot: annual rate of change of the potential output

In terms of factor determinants, about 60% of the cumulated drop of potential output in 2007-13 came from labour, while around 25% was attributable to the TFP (Chart 2). The reason why the contribution of capital is comparatively small is twofold: first, the industrial sector is characterized by a large wage share (close to 70%), therefore the contribution of K in the production function is limited; second, capital is a highly persistent variable and the fall in investments recorded during the two recessions, even if remarkably large, has not (so far) resulted in a dramatic drop of the capital stock.

Chart 3



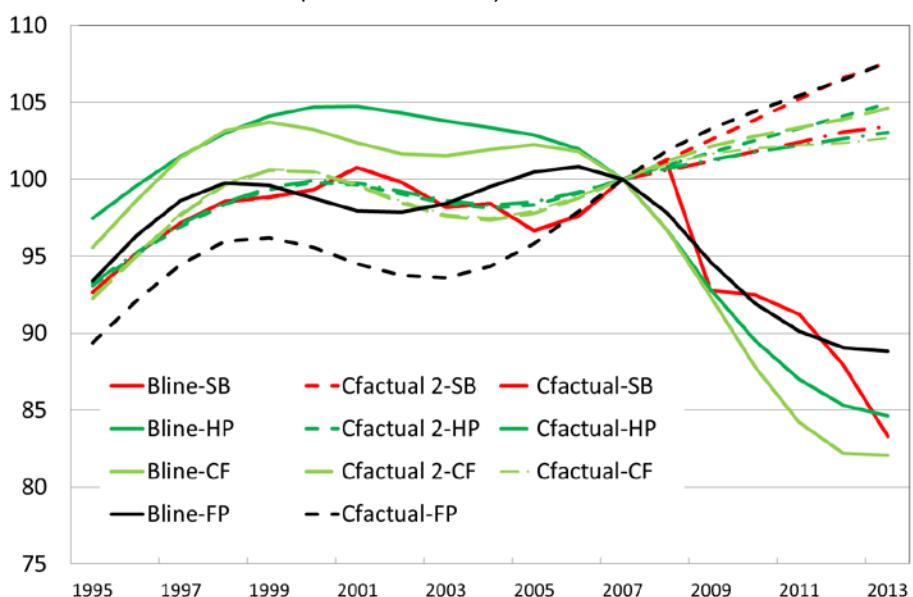
Source: Own calculations based on Istat data; sectoral shares in percentage points; negative numbers indicate that the sector shows an increase in potential. The sum of the sectoral shares is equal to 100 for each method. For PF method, National accounts value added weights

In the baseline PF-based estimates, a large drop of potential output is estimated for firms producing rubber and plastics products (-19.4%) and transport equipment (-18.4%), similar to the results found following the other approaches (Table 1); a

sharp decline is also estimated for other manufacturing (-23.7%) and the wood, furniture, paper and printing sector (-19.6%). Potential was broadly stable for producers of food, beverages and tobacco and increased sharply in the pharmaceuticals sector (22.4%).

Chart 3 maps the actual contributions of each sector to aggregate manufacturing capacity loss, according to the three methods. Large differences are evident in the manufacture of pharmaceutical products (CF) and in the other manufacturing sector (CM); sizeable discrepancies are also found for the Manufacture of machinery and equipment n.e.c (CK) and in the electrical equipment production (CJ).<sup>10</sup>

Chart 4  
Potential output in the manufacturing sector: actual and counterfactual values according to all methods  
(Index 2007=100)



Source: Own calculations based on Istat data.

Notes: Bline: baseline computation for survey-based method (SB), Hodrick-Prescott filter (HP), Christiano-Fitzgerald filter (CF) and production function method (FP); Cfactual: counterfactual computation on the 1999-2007 period; Cfactual 2: counterfactual computation on the 1992-2007 period

<sup>10</sup> Some of the discrepancies are due to the different sectoral weights on total manufacturing production and on total manufacturing value added

Chart 4 and Table B1 show the potential output estimates for the manufacturing industry obtained with a counterfactual approach, as in Sections 2 and 3. In the counterfactual scenario, potential output would have been 7.6% higher in 2013 than in 2007, thanks to the larger increase of TFP (explaining more than half of the increase) and capital (accounting for about 40%). The large contribution of capital is due to its yearly 1.7% increase before 2008, against a slight actual decline during the crisis. In the counterfactual exercise, the TFP keeps growing by slightly less than 1% each year.

In 2013 the baseline level of potential output in the manufacturing sector was 17.6% lower than the level in the counterfactual scenario. This estimate is smaller but not far from those computed with the survey based and filtering approaches. More than one third of the difference with respect to the counterfactual results are due to the labour input and TFP.

Table B1 shows the fall of potential output between 2007 and 2013 in the actual and counterfactual scenarios: in line with the analyses of Sections 2 and 3, the sectors most affected by the crisis are the ones producing metals, rubber and plastic and machinery and equipment.

### *5. Conclusions*

In this work we assess the loss of capacity in the Italian manufacturing industry between 2008 and 2013, when Italy was hit by two unprecedented recessions. We use an array of different approaches, based on surveys, statistical filters and a production function approach. All methods point to a sizeable fall in the level of production capacity: about 11% with the production function approach and around 17% with the other two. This is a large shock in historical terms; it implies that potential output fell back to the levels of the first half of the nineties.

In comparing the results obtained with the different approaches one should consider that survey based methods and the statistical approaches are relatively more affected by the current changes in activity; the production function method is the least affected by the actual evolution of production, as potential output is a function of the equilibrium level of the factors.

In order to disentangle the effect of the crisis from that due to previously ongoing sectoral trends, the loss of potential was also assessed with respect to a counterfactual scenario, in which the data replicate pre-crisis dynamics; the resulting loss estimated amounts to almost 20%, with large differences across sectors. Firms producing basic metals, fabricated metal products and machinery and equipment are found to be the ones that were most penalized by the crisis of the last six years; by contrast, sectors that were already shrinking before 2008, such as the manufacture of textiles, appear not to have performed significantly worse during the double-dip recessions than they had in the early 2000s.

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#### *Appendix A: data*

In this section we list and briefly describe the data sources we employed for the estimation of production capacity at both the aggregate and the sectoral level:

Survey based methods: IP series (monthly) are NWDA and NSA; CU series (quarterly) are NWDA and NSA. In charts and computations we used four quarters moving averages of the quarterly series, to control for seasonality in capacity utilization.

Statistical filters methods: IP series (monthly) are WDSA. Series, originally 1990.1 to 2013.12 are made quarterly and projected forward (up to 2017Q4) with an AR4 process. Series are then filtered with HP (lambda = 1600).

Production function analysis: we use National Accounts annual data which are available since 1970. Y is the value added at factor cost; LF is derived from the National Accounts measure of employment, rescaled for the inverse of the employment rate; the NAIRU is estimated as in Bassanetti et al. (2006), using an unobserved component method; for K we use the stock of net capital as baseline but also the

stock of gross capital and a third measure that simulates the faster depreciation recently estimated in Tartaglia Polcini (2013). When we apply the  $U_k$  correction we use our electricity consumption based measure described in Section 2.1 in order to avoid using the same information as in Section 2.

### **Sectors (NACE rev.2)**

#### **C MANUFACTURING**

- CA Manufacture of food, beverages and tobacco products
- CB Manufacture of textiles, wearing apparel and leather
- CC Manufacture of wood, paper products and printing
- CD Manufacture of coke and refined petroleum products
- CE Manufacture of chemicals
- CF Manufacture of pharmaceutical products
- CG Manufacture of rubber, plastic and non-metallic mineral products
- CH Manufacture of basic metals and fabricated metal products
- CI Manufacture of computer, electronic and optical products
- CJ Manufacture of electrical equipment
- CK Manufacture of machinery and equipment n.e.c.
- CL Manufacture of transport vehicles
- CM Other manufacturing

## Appendix B: additional charts and tables

Chart B1

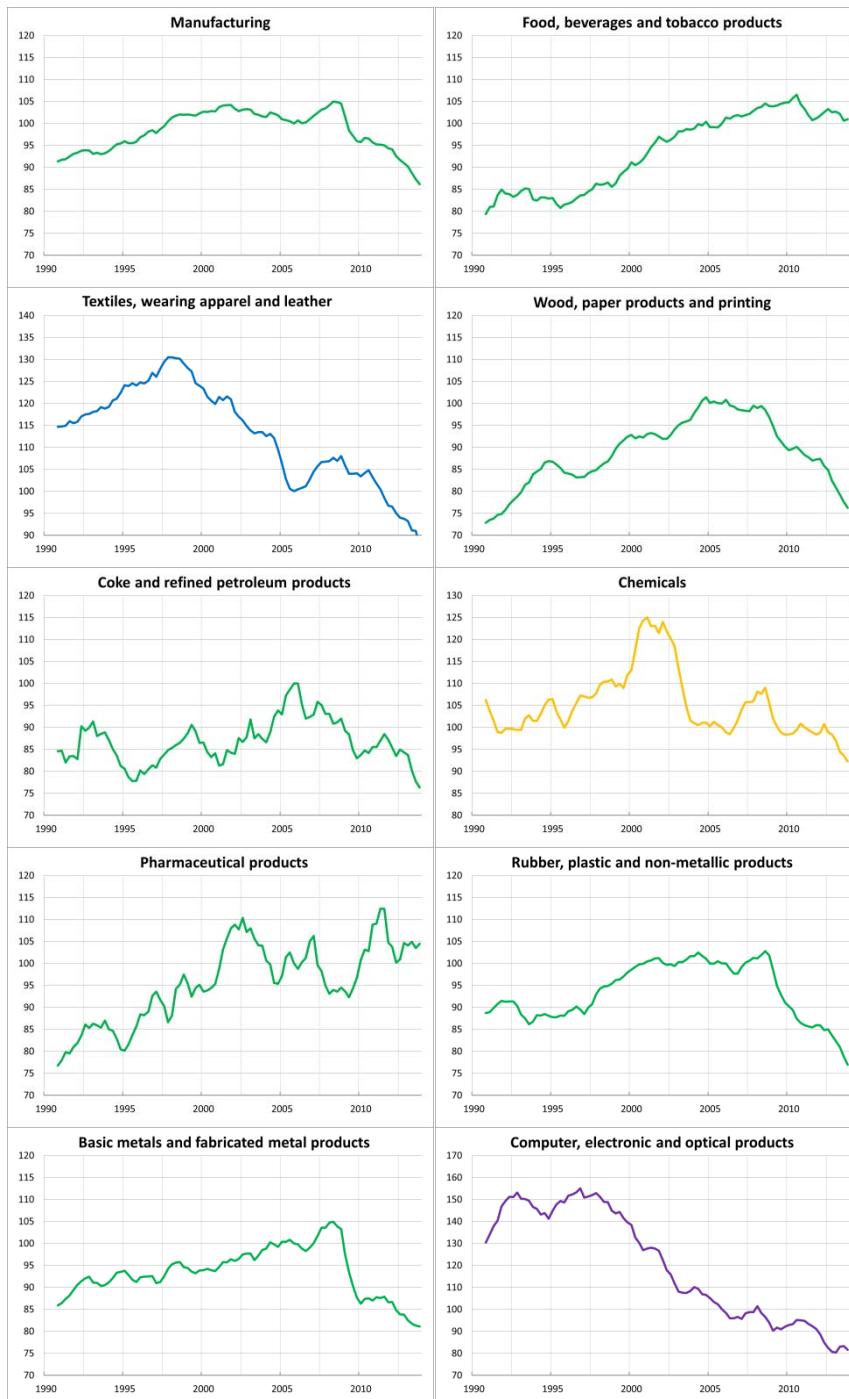
### Potential production for Manufacturing and Main Industrial Groupings (MIGs) (2005 = 100)

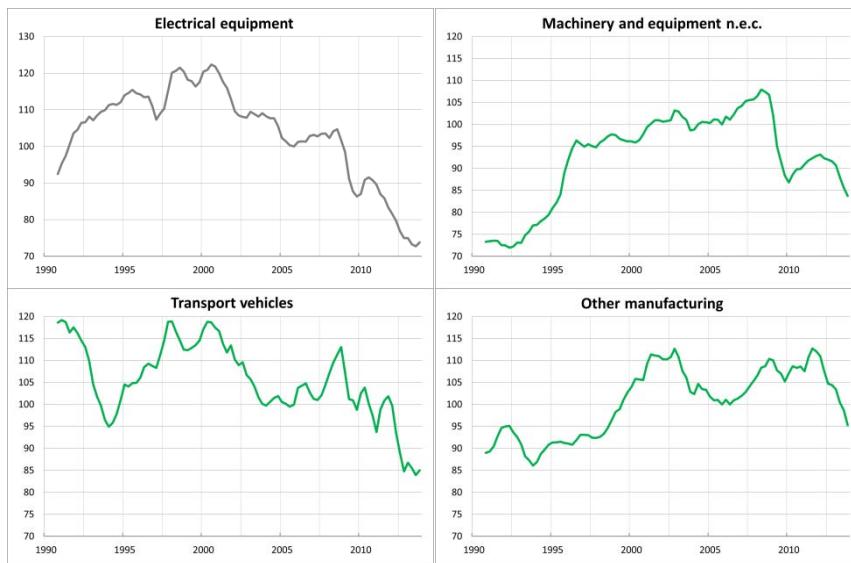


Source: Own calculations based on Istat data. Green line for 70-120 scale; different colours are associated with other scales

Chart B2

**Potential production for Manufacturing and Sectors of activity  
(2005 = 100)**



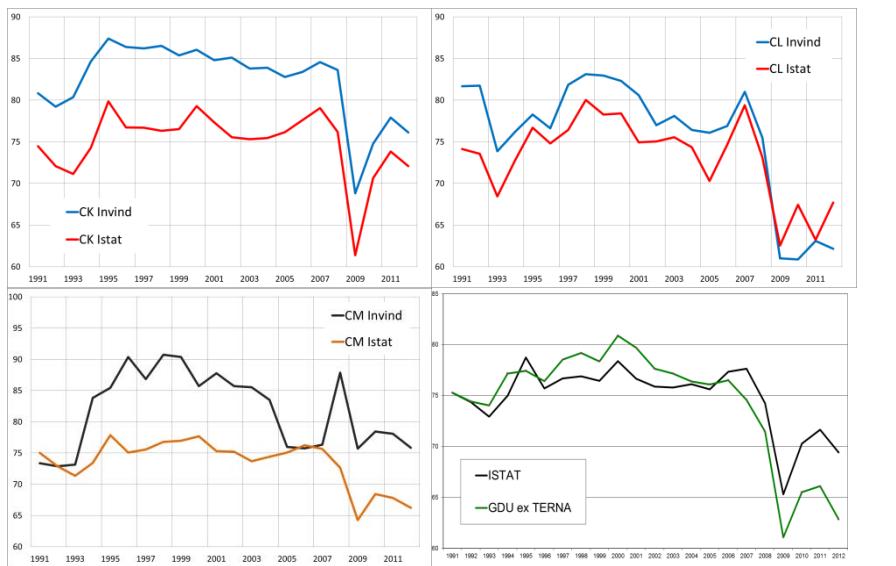


Source: Own calculation based on Istat data. Green line for 70-120 scale; different colours are associated with other scales

Chart B3

**Rate of capacity utilization, by activity sector, according to Istat,  
the Bank of Italy Survey on industrial and service firms and Terna  
(percentages)**

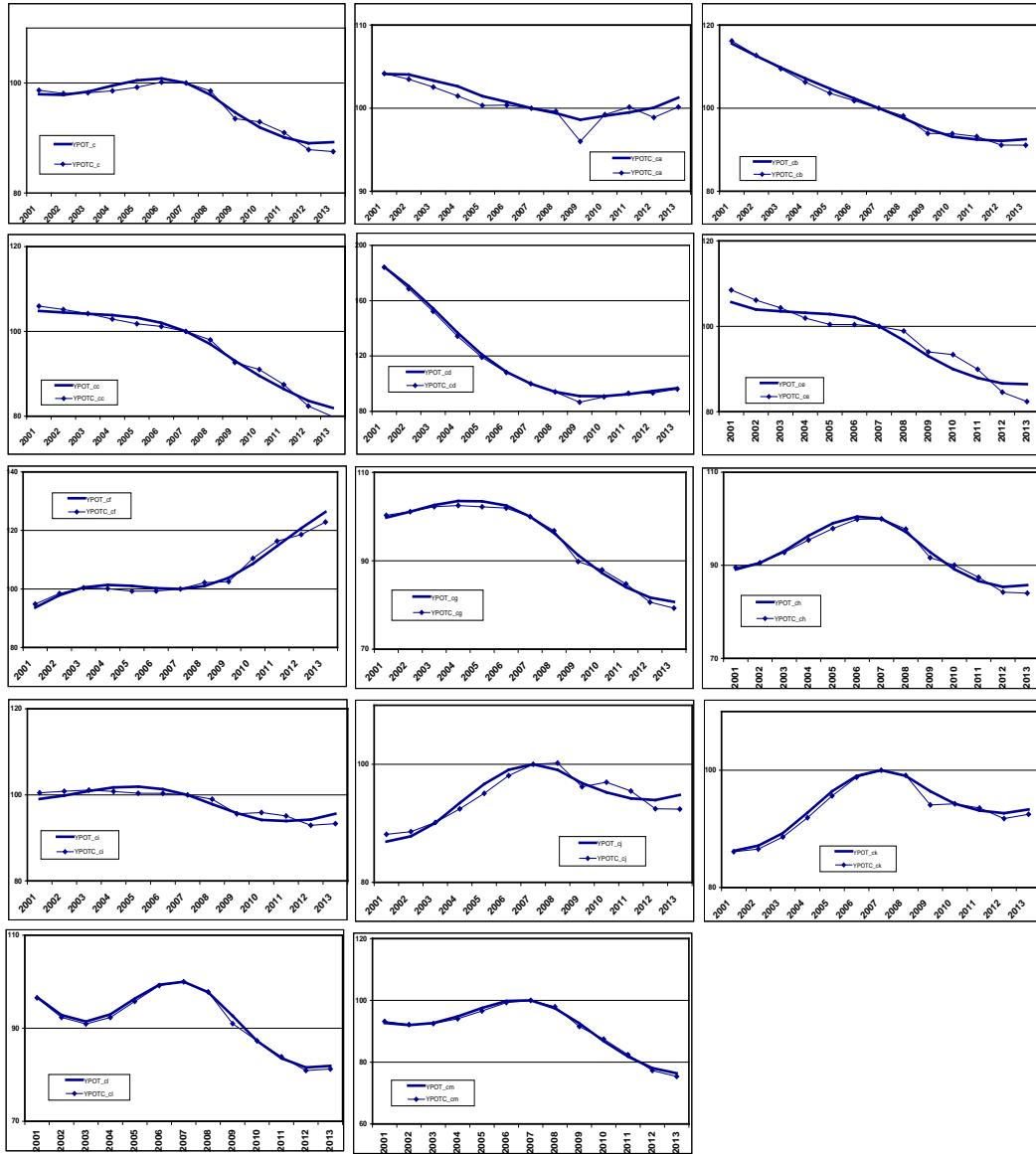




Source: Own calculations based on Istat, the Bank of Italy's *Survey on industrial and service firms* and Terna data. The blue and red lines are associated with 30pp scales; different colours are associated with larger or smaller scales

Chart B4

Potential output estimates, Production Function approach  
(index, 2007=100)



Source: Own calculations based on Istat and Terna data. YPOT\_XX:estimates of potential output; YPOTC\_XX: estimates of potential output with correction for the capacity utilization; suffix \_XX stands for the ATECO 2007 NACE rev. 2 sectors (see Appendix A)

Table B1

**Capacity changes by activity sector  
(percentages)**

<b>Capacity changes by activity sector and MIGs (2007-13)</b>	<b>Production Function</b>	
	Actual	Counterfactual
CA Manufacture of food, beverages and tobacco products	0.7	-2.4
CB Manufacture of textiles, wearing apparel and leather	-8.0	-0.9
CC Manufacture of wood, paper products and printing	-19.6	-22.5
CD Manufacture of coke and refined petroleum products	-24.2	4.4
CE Manufacture of chemicals	-15.3	-12.2
CF Manufacture of pharmaceutical products	22.4	2.8
CG Manufacture of rubber, plastic and non-metallic mineral products	-19.4	-25.1
CH Manufacture of basic metals and fabricated metal products	-16.0	-27.8
CI Manufacture of computer, electronic and optical products	-5.1	-16.2
CJ Manufacture of electrical equipment	-6.2	-17.9
CK Manufacture of machinery and equipment n.e.c.	-6.6	-22.4
CL Manufacture of transport vehicles	-18.4	-23.5
CM Other manufacturing	-23.7	-32.3
<b>TOTAL MANUFACTURING</b>	<b>-11.3</b>	<b>-17.6</b>

Source: Own calculations based on Istat and Terna data; percentage points

Table B2

**Contributions to capacity loss by activity sector  
(percentage changes of the potential =100)**

% Contributions to capacity loss by activity sector (2007-13)	<i>Survey based method</i>		<i>HP Filter</i>		<i>CF Filter</i>		<i>Production function*</i>	
	Baseline	Cfactual	Baseline	Cfactual	Baseline	Cfactual	Baseline	Cfactual
CA Manufacture of food, beverages and tobacco products	1.2	5.5	1.0	6.9	1.0	2.5	-0.6	1.4
CB Manufacture of textiles, wearing apparel and leather	9.8	3.7	9.2	4.2	8.5	4.3	7.4	0.5
CC Manufacture of wood, paper products and printing	8.5	8.7	9.5	9.0	9.1	9.3	11.7	8.5
CD Manufacture of coke and refined petroleum products	1.8	1.8	2.3	1.6	2.2	1.6	2.8	-0.3
CE Manufacture of chemicals	3.5	6.0	3.6	4.4	4.0	4.7	5.2	2.7
CF Manufacture of pharmaceutical products	-2.5	-1.2	-1.5	-0.4	-1.4	-0.4	-5.9	-0.5
CG Manufacture of rubber, plastic and non-metallic mineral products	14.1	12.5	15.5	13.7	14.9	14.3	15.9	13.2
CH Manufacture of basic metals and fabricated metal products	20.9	25.3	19.1	21.3	19.6	22.3	22.8	25.2
CI Manufacture of computer, electronic and optical products	3.6	-0.6	3.8	0.0	3.5	0.0	1.7	3.5
CJ Manufacture of electrical equipment	8.3	5.6	8.4	5.9	8.3	6.4	2.8	5.2
CK Manufacture of machinery and equipment n.e.c.	17.2	21.3	13.6	16.5	13.8	16.8	7.4	15.9
CL Manufacture of transport vehicles	8.7	7.1	10.0	10.1	11.3	11.2	9.4	7.7
CM Other manufacturing	4.7	4.2	5.5	6.7	5.3	7.0	19.4	16.9
<b>TOTAL MANUFACTURING (sum of the sectoral shares)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Capacity loss for total manufacturing 2007-13</b>	<b>-16.7</b>	<b>-19.4</b>	<b>-15.4</b>	<b>-17.9</b>	<b>-17.9</b>	<b>-20.1</b>	<b>-11.3</b>	<b>-17.6</b>

Sources: Own calculations based on Istat data; sectoral shares in percentage points; negative numbers indicate that the sector shows an increase in potential. The sum of the sectoral shares is equal to 100 for each method. (\*) National accounts value added weights



## MICROCREDIT

Davide D'ANGELO<sup>1</sup>*Abstract*

*Microcredit is a loan of a small amount, provided to beneficiary in the absence of appropriate collateral guarantee. In this paper we describeth the main features of microcredit and its possible application as an alternative way to access to credit. Subsequently, we describe the evolution of this financial instrument in the last decades: the microcredit started in Bangladesh during '70 years, when Muhammad Yunus founded the Grameen Bank([ETHICAL BANK](#)). Then, we describe the European framework and the Italian regulation, with the recent ministerial decrees. We offer some considerations about its structure, showing its potentials, but also the possible drawback effects, and finally we conclude.*

*Definition*

Microcredit could be defined as the supply of «small loans to very poor people for self-employment projects that generate income, allowing them to care for themselves and their families» (Grameen Bank, *What Is Microcredit?*, [http://www.grameen.com/index.php?option=com\\_content&task=view&id=32&Itemid=91](http://www.grameen.com/index.php?option=com_content&task=view&id=32&Itemid=91)), or as the supply of loans «without guarantee of a low amount provided by financial intermediaries of different legal nature. Microcredit is provided to single person or group of people that haven't normal requisites to access traditional credit circuit, both for developing a formal or informal business and for socio-assistance initiatives» (translated by Becchetti, 2009: p. 594).

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<sup>1</sup> Davide D'ANGELO, Dottorando in "Economia e Territorio", Università della Tuscia, Viterbo (VT)

Microcredit doesn't require that beneficiaries give collateral guarantees, consequently institutes that provide microcredit adopt different warranty systems (Becchetti, 2008; Ciravegna, 2003).

#### *Characteristics of microcredit*

Microcredit (Mc) includes a large range of different lending activities; however, all these ones have two main characteristics:

- a small amount;
- the absence of appropriate collateral guarantees produced by beneficiaries.

This last element represents the main difference with a traditional loan: microcredit is provided in the absence of appropriate collateral guarantees and this element "breaks" the link consolidated in traditional banking system between the supply of a loan and the ownership of sufficient collaterals by the beneficiary. This has created an oxymoron since banks are inclined to give money only to those who already have economic resources, and consequently they exclude those who need but don't have any asset (Becchetti, 2008).

Microcredit has both social inclusion and economic development scope, since it funds man and women with entrepreneurial ideas and strong professional skills, without sufficient personal resources for realizing their own business (Ciravegna, Limone, 2007). The meaning of microcredit does not match that of microfinance (Mf) ([MICROFINANCE \(Encyclopedia\)](#)) because the first represents only a part of the second. Microfinance includes different activities, among which the provision of small loans (that is microcredit), micro-insurances and micro-leasing, the collection of private savings and the supply of other financial services (Microcredit Summit Campaign, What Is Microfinance, <http://www.microcreditsummit.org/what-is-microfinance2.html>).

In relation to the economic sustainability of microcredit, in developing countries there have been many successful experiences, contrary to developed countries where

traditional banking dominates. The reasons are different: a high competition with traditional banks, the high demand of Mc but a constrained supply, the high operating costs and a rigid legal framework (Limeone, 2007; Orsini, 2014). Researchers agree that the provision of microcredit has to tend toward an efficient management system, whereas there is an intense debate concerning its economic sustainability. Some stakeholders underline the relevance to gain a complete economic sustainability to supply microcredit for a long time; others highlight the importance to maximize social effects and positive externalities of Mc, even if it weakens the economic reliability of microcredit institutions (Becchetti, 2008; De Vincentiis, 2007).

#### *System of collateral guarantees*

Due to the absence of appropriate collateral guarantees, the microcredit providers adopt different strategies to attain the engagement of Mc recipients for repaying their debts. The providers select the potential beneficiaries of microcredit analysing deeply their moral status, their professional skills and the potentials of their business ideas. Microcredit brings the concept of credit back to its first meaning, that is "to give faith". There are different categories of warranties for microcredit:

- personal warranties, in which one or more subjects (family members, friends, colleagues or professional players as a confidi<sup>2</sup> [link to "Confidi" voice of Bankpedia]) repay the loan if the debtor is insolvent (Isaia, 2007). The surety is an example of personal warranty;
- accessory warranties ([SUSTAINABLE FINANCE \(Encyclopedia\)](#)), that are assets with a low economic value but a high notional value for the debtor, that will engage deeply to repay his debt and consequently to keep the ownership on these assets.

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<sup>2</sup> A "Confidi" is a consortium that provides mutual guarantees. For other information, surf the following website: Patti Chiari, About Credit Guarantee Consortiums, <http://www.pattichiari.it/home/saperne-di-piu/risorse/tutti-gli-argomenti/speciale-migranti/english/enterprise/enterprise7.dot>.

The accessory warranties can be objects related to the work of the debtor (for example, a truck for a carrier or a plough for a farmer) or ones with a relevant sentimental value for him (ceramics, a watch, jewellery, a wedding dress, etc.) (Becchetti, 2008).

Microcredit can be provided to a group of beneficiaries following different schemes. The provision of microcredit to a group of recipients, called "group lending", is a pillar of "Grameen methodology", the scheme applied by Grameen Bank ([ETHICAL BANK](#)) to supply microcredit in Bangladesh. Recently, Grameen Bank philosophy has been diffusing in many different areas of the world by activities and initiatives of Grameen Foundation. The group lending is very common in rural areas of developing countries where social relationships are very close among members within a community, but it's rare in Europe where society is more individualistic and social relationships are less binding.

### *Short history*

Microcredit under the modern meaning was introduced in Bangladesh during '70 years, when Muhammad Yunus founded the Grameen Bank (that means "Village Bank"). Grameen Bank started to supply small loans in the absence of appropriate collaterals. The beneficiaries were small groups, composed mostly by women. Grameen Bank helped millions of households to come out of misery by microcredit during the last forty years.

In 1997 the first session of Microcredit summit campaign was held in Washington (USA) on February 1997. This campaign aimed for supplying microcredit to 100 million of poor households in the world until 2005 (Microcredit Summit Campaign, <http://www.microcreditsummit.org/>). This goal was not achieved, but in eight years microcredit allowed to supply loans to 92 million of households, 66.6 million of them with a daily income less than a dollar. United Nations (UN) declared 2005 "International Year of Microcredit" (UN, 2003; UN, 2004).

The current target of Microcredit summit campaign is to provide microcredit to 175 million of households in extreme poverty until 2015, taking out from misery 100 million of them (Microcredit Summit Campaign, <http://www.microcreditsummit.org/>). The choice of 2015 as deadline for the new target is due to the correspondence with the term of the current UN Millenium Development Goals (MDGs)<sup>3</sup>.

#### *European framework*

According to law of European Union (EU), microcredit is a loan with a maximum amount of up to €25,000 (European Parliament, Council, 2013).

In 2011 European commission published an European Code of Good Conduct for Microcredit Provision, code updated on June 2013. This code is not binding for Mc operators, but it lists behaviours and good practices that are positively acknowledged by Mc institutions and stakeholders and that concern different aspects of a microcredit business. The respect of these practices advantages clients, investors, bankers, owners, regulation authorities and partner organisations. In relation to its application, «the Code of Good Conduct is primarily addressed to non-bank microcredit providers which make available to micro-entrepreneurs or self-employed people loans of up to €25,000» (European Commission, 2013).

#### *Italian regulation*

In Italy microcredit has been introduced officially in the national regulation by the legislative decree no. 141 of 13 August 2010. It modified articles n.111 and n.113 of "Testo Unico Bancario" (TUB), the italian code that regulates banking. In 2014 the Ministry of Economy and Finances published a decree that has made operational the above-mentioned national regulation (Ministry of Economy and Finances, 2014).

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<sup>3</sup> Regarding the MDGs, surf the following website: United Nations (UN), Millenium Development Goals, <http://www.un.org/millenniumgoals/>.

Microcredit is supplied in the absence of collaterals, but personal warranties and other forms of guarantees are allowed. The provider of a microcredit has to supply some consultant services to the debtor in order to support this one to manage his business or to reorganize his household balance sheet.

There are two categories of microcredit: Mc for entrepreneurial purposes, focused on micro-entrepreneurs and self-employed people, and Mc for social or solidarity purposes, focused on single persons in specific situations of socioeconomic vulnerability. In relation to the maximum amount of a microcredit, Mc for entrepreneurial purposes concerns loans of up to €25,000, and in some specific cases of up to €35,000; furthermore, the same beneficiary can receive different loans, one after the other. Otherwise, Mc for social purposes concerns financings of up to €10,000 and the provider has to supply this loan with better conditions than the prevalent ones in the reference market.

The microcredit providers are divided in two main categories: the traditional credit providers, as banks and financial intermediates, and the non-banking operators. The non-banking operators are regulated by article n.111 of "Testo Unico Bancario" and the above-mentioned ministerial decree, and they have to respect specific criteria.

Regarding the beneficiaries, microcredit for entrepreneurial purposes focuses on natural persons, partnerships and cooperatives: all these categories of recipients have to respect clear criteria relating their size, their debt level and their stay time on the market. Apart from some exceptions<sup>4</sup>, corporations and limited companies are kept out as possible recipients of microcredit. Microcredit for social and solidarity purposes focuses on natural persons that are in specific conditions of socioeconomic vulnerability, stated in details by the above-mentioned ministerial decree.

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<sup>4</sup> The "società a responsabilità limitata semplificata" (SRLS) is a corporation regulated by article 2463-bis of Italian Civil Code but it can access to microcredit.

### *General scheme of public intervention*

Currently, in most cases the programmes of microcredit are fostered or conducted by participation of public subjects. Most of these programmes follow a "quadrangular intervention scheme" (Andreoni, Sassatelli, Vichi, 2013), where four different categories of players are present:

1. public bodies, that procure the financial resources to supply microcredit and/or to found a guarantee fund for insuring those who provide effectively the loans;
2. qualified operators, that select the potential beneficiaries;
3. banks, that supply effectively the loans;
4. social operators - in most cases subjects belonging to no-profit sector - that support the beneficiaries of a microcredit before and during the repaying period of each loan.

### *Microcredit's effects*

Analysing the microcredit, it's important to balance sensibly its merits and positive results with its real contraindications and potential drawback effects (Orsini, 2014). Microcredit can have various positive effects. Firstly, it improves the socioeconomic relationships within a community (Becchetti, 2008): in fact, the poor is involved in a business transaction, he receives faith by another person and he gains a respectable social acknowledgement within own community (Orsini, 2014). The selection of potential beneficiaries of microcredit isn't based on collaterals owned by a person, but on his business idea, moral qualities and professional skills (Orsini, 2014). Microcredit represents a possible way for a person to gain an economic independence and a higher social position. Moreover, micro-enterprises and small businesses (**SMALL AND MEDIUM SIZED ENTERPRISES - SMEs**) are often excluded from traditional credit circuit and consequently they can use microcredit to access to financings for making investments (Orsini, 2014).

In developing countries most of microcredit projects are focused on female entrepreneurship because the condition of women is usually worse than the men's one. Analysing different empiric surveys in developing countries, women who received a microcredit have on average a higher social status and better health conditions than the others (Bonaga, Tinessa, 2014).

In relation to the general issue of unemployment, microcredit doesn't represent a "magic" tool and it can't be the solution for all unemployed workers; however, microcredit could represent an useful instrument to support many people to gain an economic self-sufficiency. Consequently, it's very important to select carefully which people and business projects have to be financed by microcredit (Orsini, 2014).

In the author's opinion, microcredit burdens the public balance sheets less than the traditional non-repayable aids supplied by public bodies; furthermore, the Mc beneficiaries will engage deeply to invest in the best way the financings received since they have to repay their debts.

### *Microcredit in Italy*

Considering data until 31th December 2012, there were 172 operational programmes of microcredit in Italy, and 29 of them started in 2012. All these programmes have financed 12,418 beneficiaries, supplying €115,900,000.

There are four main categories of players that supply microcredit:

1. public bodies;
2. banks;
3. private non-banking subjects (non-banking operators, foundations, associations and the so called "Mutua AutoGestione"<sup>5</sup>);

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<sup>5</sup> The "Mutua Società per l'Autogestione" (MAGs) are mutual company under workers management with the form of cooperatives. Respecting solid ethic principles [link to "Sustainable Finance" voice of Bankpedia], the MAGs provide different services and one of these concerns the supply of loans to their associates. A possible link to deepen this topic is the following (available only in italian): MAG4. Strumenti di finanza etica e di Economia solidale, Chi Siamo, <http://www.mag4.it/chisiamo/le-mag.html>.

4. religious bodies.

According to data on 2012, most of programmes have been promoted both by private (53) and public (51) subjects. In relation to the beneficiaries, the private operators have provided microcredit to 4,048 beneficiaries, banks and religious bodies have supplied financings respectively to 2,914 and 2,612 recipients, and finally public bodies have provided loans to 2,844. Regarding the amount of money lent, the beneficiaries have received almost €42 million by private bodies and about €39 million by public ones (CamCom Universitas Mercatorum, Borgomeo, 2014, pp. 68-69). However, most of financial resources to grant microcredit have been supplied to other providers by banks (almost €99 million out of €116 million). Concerning the categories of beneficiaries, the natural persons have received nearly €64 million, while the legal persons have benefited from microcredit of €8,750,000; moreover, the programmes that funded indifferently natural and legal persons have provided more than €40 million. Considering data until 31th December 2012, in Italy the group lending appeared secondary because only about €3 million out of €116 have financed businesses of people joined in repaying groups of two or more units (CamCom Universitas Mercatorum, Borgomeo, 2014, pp. 70-71).

In relation to the geographical distribution of microcredit in Italy, considering data until 31 December 2012, Calabria, Piedmont and Tuscany were the three regions where the supply of microcredit seemed to be more widespread, with over 3,500 financings in each region. On the contrary, Valle d'Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia, Umbria, Molise, Apulia and Campania were the regions with the fewest number of microcredits supplied (less than 500 in each of these regions). Most of programmes of microcredit had a regional or local range; in fact, only 16 among them had a national relevance (CamCom Universitas Mercatorum, Borgomeo, 2014: pag. 72-73).

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Analysing the available data, the most common profile of a Mc beneficiary seems to be a single person who applies for a loan of an amount less than €5,000 to overcome financial difficulties related to his/her household (CamCom Universitas Mercatorum, Borgomeo, 2014: pag. 68).

Finally, according to the National Agency for Microcredit it has supported the creation of nearly 20,000 jobs in Italy between 2011 and 2013 (National Agency for Microcredit, Lavoro: ENM, da Microcredito oltre 20mila Posti tra 2011-2013, <http://microcreditoitalia.org/images/pdf/lavoro.pdf>).

### *Conclusions*

The current debate about microcredit is evolving, but the literature confirms that microcredit can improve the financial sustainability of large number of persons, unable to access credit otherwise<sup>6</sup>.

The supply of microcredit on a large scale can produce both positive and negative results; the correct implementation of Mc programmes allows to maximize their effectiveness. However, a necessary condition to accomplish this goal is that policy makers and the Mc stakeholders succeed in establishing regulations, actions and measures to build a suitable network for supporting both the creation of new start-ups and new employment, and the supply of microcredit within a specific socioeconomic context.

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## RISCHI DEI DERIVATI OTC DOPO LA RIFORMA DEL SISTEMA FINANZIARIO

Chiara OLDANI<sup>1</sup>*Abstract*

*I derivati OTC hanno giocato un ruolo evidente nella recente crisi finanziaria mondiale. L'approccio di riforma intrapreso dai paesi del G-20 per garantire la stabilità finanziaria è solido, ma il livello relativamente basso di coordinamento transatlantico potrebbe ridurne l'efficacia. Inoltre, lo scambio di derivati OTC da parte di operatori non finanziari spesso non avviene in base alle nuove regole, diminuendo gli incentivi a compensare centralmente i contratti OTC, aumentando i rischi di controparte, riducendo la stabilità finanziaria e la resilienza. Il G-20 dovrebbe raccomandare il monitoraggio degli scambi di derivati OTC degli operatori non finanziari e potenziare le procedure contabili e di gestione del rischio.*

*Derivati Finanziari*

Il mancato intervento per la regolazione internazionale delle negoziazioni dei derivati Over the Counter (OTC) tra operatori non finanziari costituisce una fonte di rischio sistematico. Infatti, in occasione del G-20 di Brisbane (novembre 2014) i leader mondiali hanno espresso una chiara posizione sul tema affermando che "uno sforzo cruciale rimane da compiere per costruire un sistema finanziario più solido e resiliente" (critical works remain to build a stronger, more resilient financial system); vanno dunque ancora compiute riforme in tempi rapidi sui derivati OTC. Dal 2009 i leader mondiali sono impegnati nella revisione dell'architettura finanziaria globale al fine di fronteggiare al meglio i nuovi rischi e promuovere in maniera efficace la crescita.

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Come condiviso da molti economisti, la crisi finanziaria non è stata solo il prodotto di un eccesso di credito e della bolla finanziaria, ma anche di un “processo di liberalizzazione inadeguato, di regolamentazione e supervisione non efficaci, e di interventi insufficienti” (poorly designed liberalization, ineffective regulation and supervision, and poor interventions)(IMF, 2014, p.3). Sotto la spinta propulsiva del **Financial Stability Board (FSB)**, le nazioni appartenenti al G-20 si sono impegnate a regolamentare l'utilizzo dei derivati OTC da parte degli operatori finanziari (banche e intermediari finanziari), in quanto rappresentano il 90% degli scambi. Il fulcro della riforma finanziaria globale è la creazione di mercati derivati OTC fluidi e trasparenti per rafforzare la resilienza dell'economia mondiale e la stabilità del sistema finanziario.

Nonostante la ridotta performance economica globale registrata dal 2009, il mercato dei derivati continua a crescere e ha raggiunto i \$691.000 miliardi a metà del 2014 (BIS, 2014A), misurato dal valore nozionale<sup>2</sup> (notional amount outstanding); il corrispondente valore lordo di mercato è sceso a \$17.000 miliardi, al di sotto del livello registrato nel 2013 (\$20.000 miliardi), soprattutto a causa della riduzione globale dei tassi di interesse (Graf. 1, 2 ,3). Il valore nozionale dei derivati supera largamente quella di gran parte dei **prodotti finanziari**; a dicembre 2013, infatti, la capitalizzazione globale dei mercati azionari ha toccato i \$64.000 miliardi e il mercato obbligazionario ha raggiunto i \$22.400 miliardi (WFE, 2014).

La Bank for International Settlements - BIS (2013) ha analizzato l'impatto macroeconomico del nuovo quadro regolamentare dei derivati OTC, confrontando i benefici economici e i costi delle riforme da attuare, e ha identificato come beneficio di lungo termine la minore probabilità di crisi economica e finanziaria che, a sua volta, rappresenta un fattore positivo per la crescita economica. I costi (di breve e lungo termine) delle riforme sono rilevanti per il sistema finanziario globale, ma la mancanza

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<sup>2</sup> Il valore nozionale rappresenta il valore dell'esposizione nominale e non viene mai scambiato tra le parti.

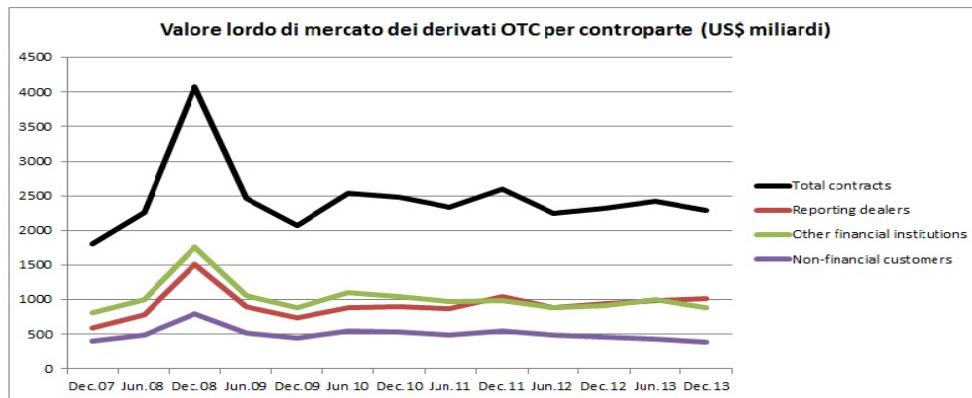
di dati relativi all'esposizione sugli scambi bilaterali, insieme all'incertezza sullo scenario regolamentare finale, hanno limitato il livello di approfondimento dell'analisi. La probabilità di avere una crescita di lungo termine più forte e più stabile con il nuovo sistema regolamentare dipende fortemente dal livello di coordinamento tra sistemi finanziari e dall'abilità di riconoscere e colmare i vuoti rimasti.

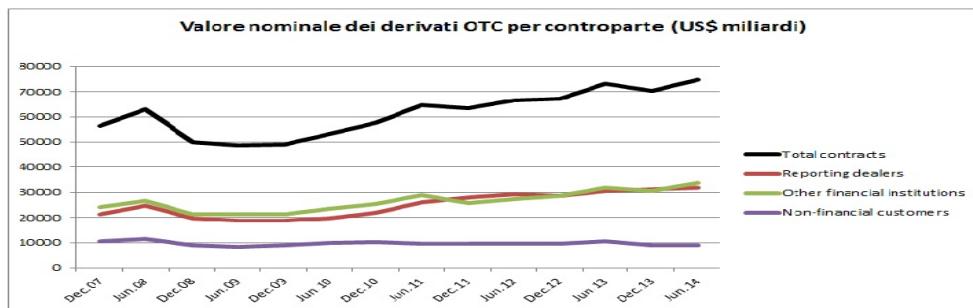
In linea generale, l'**Unione Europea** e gli Stati Uniti presentano un livello avanzato di attuazione delle nuove regole, in confronto agli altri paesi del G-20, ma ciò avviene a discapito della coerenza e della consistenza tra i due sistemi (Schindelhaim, 2013). In particolare, regole divergenti sul **capitale**, sulla **liquidità**, sui derivati e sulla struttura bancaria creano disallineamenti regolatori che creano incentivi all'inefficienza in termini di concorrenza e prezzi, a danno del mercato finanziario (Deutsch, 2014). Questo ha effetti non trascurabili sulla crescita e lo sviluppo per tutti i paesi del G-20 a causa dell'esistenza di profondi legami finanziari.

Tab.3 Amounts outstanding of OTC foreign exchange derivatives														
By instrument and counterparty in billions of US dollars														
Notional amounts outstanding														
	Dec.07	Jun.08	Dec.08	Jun.09	Dec.09	Jun.10	Dec.10	Jun.11	Dec.11	Jun.12	Dec.12	Jun.13	Dec.13	Jun.14
Total contracts	56238	62983	50042	48732	49181	53153	57796	64698	63381	66672	67358	73121	70553	74782
Reporting dealers	21334	24845	19665	18849	18896	19924	21956	26170	27953	29484	28834	30690	31206	31971
Other financial institutions	24357	26775	21300	21441	21445	23476	25636	28854	25916	27538	28831	31757	30552	33700
Non-financial customers	10548	11362	9077	8442	8840	9753	10204	9675	9512	9651	9693	10674	8794	9111
Outright forwards and foreign exchange swaps														
Reporting dealers	29144	31966	24494	23105	23129	25624	28433	31113	30526	31395	31718	34421	33218	35190
Other financial institutions	9899	10897	8472	7701	7683	8370	9262	10932	11319	11576	11083	11846	11647	11931
Non-financial customers	13102	14444	10906	10653	10497	11878	13018	14529	13386	14023	14860	16441	16506	18245
Currency swaps	6143	6624	5116	4751	4949	5376	6153	5651	5820	5796	5775	6134	5066	5014
Reporting dealers	14347	16307	14941	15072	16509	16360	19271	22228	22791	24156	25420	24654	25448	26141
Other financial institutions	5487	6599	6009	6330	7112	7027	8320	10075	11819	12698	12895	12443	13720	13889
Non-financial customers	6625	7367	6858	6717	7282	7274	8802	9749	8613	9086	9809	9681	9025	9463
Options	2234	2341	2074	2025	2115	2059	2149	2404	2359	2372	2716	2530	2703	2789
Reporting dealers	12748	14710	10608	10555	9543	11170	10092	11358	10065	11122	10220	14046	11886	13451
Other financial institutions	5948	7349	5184	4818	4101	4528	4373	5163	4815	5211	4856	6401	5840	6151
Non-financial customers	4629	4964	3537	4071	3666	4324	3816	4575	3917	4429	4162	5635	5022	5992
	2171	2397	1887	1666	1775	2318	1902	1619	1333	1482	1203	2010	1025	1308

Gross market values														
	Dec.07	Jun.08	Dec.08	Jun.09	Dec.09	Jun.10	Dec.10	Jun.11	Dec.11	Jun.12	Dec.12	Jun.13	Dec.13	Jun.14
Total contracts	1807	2262	4084	2470	2070	2544	2482	2336	2592	2249	2313	2427	2284	1722
Reporting dealers	594	782	1520	892	732	890	899	875	1047	881	946	992	1011	709
Other financial institutions	806	995	1768	1066	888	1100	1050	973	991	885	911	999	887	693
Non-financial customers	407	484	796	512	449	554	534	489	555	483	456	437	386	321
Outright forwards and foreign exchange swaps														
Reporting dealers	228	281	662	301	235	315	326	318	354	282	295	360	325	209
Other financial institutions	292	348	780	374	300	400	365	302	385	337	351	421	359	263
Non-financial customers	154	172	388	195	148	215	194	157	184	153	160	175	140	99
Currency swaps	817	1071	1633	1211	1043	1201	1235	1227	1324	1190	1259	1131	1186	939
Reporting dealers	215	315	568	402	332	388	390	387	523	463	529	464	543	394
Other financial institutions	406	520	783	568	478	561	586	576	520	472	488	462	432	352
Non-financial customers	196	237	282	241	233	252	258	264	281	255	241	205	211	193
Options	315	388	621	389	344	413	362	332	345	286	249	339	273	213
Reporting dealers	151	186	290	190	166	186	182	170	170	135	123	167	143	106
Other financial institutions	108	127	205	125	111	139	98	95	86	76	71	116	96	77
Non-financial customers	57	75	126	75	68	88	81	67	90	75	55	56	35	29

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### *Operatori non finanziari*

Ad oggi il nuovo quadro regolamentare non si applica alla negoziazione tra operatori non finanziari a causa della dimensione relativamente ridotta e della supposta natura semplicistica dei prodotti; il primo elemento non dovrebbe invece far trascurare i rischi potenziali in virtù dell'effetto domino e delle profonde interconnessioni nel sistema finanziario. La contrattazione di derivati OTC da parte di Governi, amministrazioni locali e imprese non finanziarie rappresenta il 12% del mercato globale totale di derivati OTC a metà del 2014 (BIS 2014A), una dimensione che ricorda quella dei mutui sub-prime nel 2007. Inoltre, la supposta natura semplicistica dei contratti OTC negoziati dagli operatori non finanziari non è confermata dai dati di contabilità e dalla letteratura. La non applicazione della nuova regolazione, insieme al rischio-modello, limitano la possibilità di garantire in maniera efficace la stabilità finanziaria. La BIS (2014C) ha analizzato gli incentivi alla centralizzazione degli scambi di derivati OTC con il nuovo sistema regolamentare e, riguardo agli operatori finanziari, afferma che:

"se l'utilizzatore finale di derivati OTC non è soggetto a requisiti patrimoniali per il rischio di controparte il suo incentivo alla compensazione con controparti centraliz-

zate si riduce; se l'utilizzatore finale non è soggetto ai requisiti marginali sui derivati non centralizzati o non ricade oltre la soglia di margine richiesta, l'effetto sugli incentivi a compensare mediante controparti centrali non è diretto (p.19)" (if an end user of OTC derivatives is not subject to capital requirements for counterparty credit risk, its incentive for central clearing is reduced; if the end user is not subject to the margin requirement on non-centrally cleared derivatives, or that fall below the margin required thresholds, the impact on incentives to clear centrally is not straightforward" (p.19))

### *Governi e amministrazioni locali*

Dopo il 1990 molti Stati sovrani hanno impiegato derivati finanziari OTC per coprire i rischi del loro **debito** e per controllarne i relativi costi (ad esempio per i titoli emessi in valuta estera) attraverso **swap** sui tassi d'interesse e su cambio. L'esperienza positiva di alcuni stati negli USA (ad esempio la California, il Texas), della Danimarca e del Brasile confermano che i contratti derivati OTC sono potenti strumenti di gestione del rischio, sebbene una ridotta informazione su questi contratti abbia alimentato le critiche (Oldani, 2008, cap.3).

L'esperienza delle amministrazioni locali con i derivati OTC dipende fortemente dalla loro indipendenza finanziaria dallo stato centrale. Dal momento che lo Stato è responsabile in solido per tutte le obbligazioni sottoscritte dalle amministrazioni locali, il Regno Unito ha proibito l'uso di derivati da parte delle amministrazioni locali sin dal 1988; al contrario, le Regioni italiane hanno in portafoglio derivati OTC per €10.784 milioni nel 2013, in mancanza di un chiaro quadro normativo domestico. Nel recente passato alcune amministrazioni pubbliche sono fallite a causa della cattiva gestione finanziaria dei contratti derivati; il default da \$2 miliardi della contea di Orange (California) nel 1994 e quello da \$4 miliardi della contea di Jefferson (Alabama) nel 2011 sono stati causati da eccessivi rischi finanziari (Howell-Moroney

and Hall, 2011) e non da una ridotta disponibilità di risorse, come le entrate tributarie o i finanziamenti pubblici<sup>3</sup>.

Lo Statement numero 53 emanato nel 2008 dal Governmental Accounting Standard Board (GASB) americano si focalizza sul "riconoscimento, la misurazione e l'informazione riguardanti i derivati in portafoglio dello stato e delle amministrazioni locali"; stabilisce i requisiti informativi dei derivati relativi ai termini contrattuali, ai rischi, al valore di mercato, ai rischi e al sottostante. Lo scopo è quello di "migliorare la contabilizzazione finanziaria da parte degli enti locali attraverso l'indicazione economica del valore dei contratti". Lo standard è entrato in vigore dal 2010, ma pochissimi paesi si sono adeguati ad esso e forniscono informazioni sulle loro transazioni finanziarie, ponendo dei limiti all'analisi empirica dei rischi e dei costi che si possono svolgere.

#### *Le imprese non finanziarie*

Le imprese non finanziarie scambiano prodotti OTC con fine di copertura o di speculazione e possono acquisire qualsiasi tipo di prodotto OTC. Secondo uno studio molto recente (Paligorova, 2014), un terzo delle imprese non finanziarie canadesi quotate nella borsa di Toronto effettuano scambi in derivati quali swap, option, future e forward su moltissimi tipi di sottostanti (tasso di interesse, prezzi delle azioni, probabilità, tasso di cambio) e l'uso di questi prodotti è diffuso in tutti i settori dell'economia. Tale evidenza è in linea con la letteratura relativa agli altri paesi del G-20, prima e dopo la crisi finanziaria (e.g. Halkeback and Hagelin 1999). D'altra parte, la mancanza di dati contabili sui derivati OTC separati da altri contratti di co-

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<sup>3</sup> La città di Detroit (Michigan, USA) è un esempio di default dovuto a eccessivo indebitamento con risorse limitate, popolazione e produzione in diminuzione. Contratti di swap sbilanciati su tassi d'interesse hanno prodotto ulteriori danni e la città ha pagato ingenti commissioni alle banche per chiudere alcuni contratti.

pertura (ad esempio le **assicurazioni**) rappresenta un limite alla valutazione esauritiva dei rischi.

Mentre le imprese finanziarie devono rispettare anche requisiti patrimoniali e di mercato, quelle non finanziarie sono libere di stipulare contratti potenzialmente rischiosi senza dover soddisfare alcun requisito e con una limitata supervisione. A luglio 2014, l'**International Financial Reporting Standard (IFRS)** ha emanato lo Standard numero 9, che sostituisce lo Statement n.39 dell'**International Accounting Standard (IAS)** sull'uso dei derivati OTC da parte delle imprese finanziarie e non a partire dal 2018. L'IFRS ha introdotto criteri di valutazione al fair value dei derivati e richiede alle imprese di fornire informazioni sul tipo di contratti, lo scopo e le relazioni con il core business. L'evoluzione della struttura del sistema finanziario e l'accresciuta complessità hanno portato a questo nuovo standard contabile.

### *Il rischio-modello*

L'incertezza sul modello di pricing dei derivati rappresenta il rischio-modello. Nel 1997 Myron S. Scholes e Robert C. Merton furono insigniti del premio Nobel in economia per il loro contributo sul pricing dei derivati finanziari. Nel 1998 l'hedge fund da loro gestito, il Long Term Capital Management (LTCM), fu colpito dalla crisi del debito asiatico e russo, e successivamente fallì. Il collasso di LTCM fu dovuto alla complessità dei modelli di rischio impiegati e all'eccessivo affidamento a tali modelli. Molti economisti e operatori di mercato credono che i modelli di pricing dei derivati siano stati usati in modo non corretto prima della crisi dei sub-prime e lo siano ancora oggi (Jarrow, 2010). Derman, nel lontano 1996, introdusse sei semplici rules of thumb (regole del pollice) per mitigare il rischio-modello, ma queste regole possono essere essenzialmente sintetizzate in una: preferire modelli semplici a quelli complessi. I membri dei consigli di amministrazione delle imprese non finanziarie e i manager delle pubbliche amministrazioni dovrebbero tenere conto di tale elementare principio nella loro azione a tutela della stabilità finanziaria d'impresa.

Enron rappresenta il principale esempio dei rischi potenziali insiti nella negoziazione di derivati. D'altra parte, spesso le imprese seguono l'approccio di Warren Buffett che nella sua lettera del 2002 agli azionisti illustrava come "i derivati sono armi finanziarie di distruzione di massa", ma guardando il bilancio della sua Berkshire Hathaway si evince come Mr. Buffett ne faccia un uso attivo, ma cum grano salis. Tuttavia, la dimensione del granello di sale non è facilmente individuabile a priori.

#### *Derivati Over-The-Counter (OTC) e il G-20*

Gli assetti normativi dei sistemi finanziari nell'UE e negli USA non sono pienamente coerenti l'uno con l'altro; questa incoerenza può essere ridotta attraverso maggiore coordinamento regolamentare da parte del G-20. Lo scambio di prodotti OTC da parte di operatori non finanziari (Governi, amministrazioni locali e imprese non finanziarie) spesso si verifica in assenza di capitalizzazione, di appropriati criteri di contabilità finanziaria e di adeguata supervisione o monitoraggio. Al fine di promuovere la crescita e la stabilità, nel 2016 il G-20 dovrebbe considerare le seguenti raccomandazioni:

- Gli altri paesi membri dovrebbero monitorare lo scambio di derivati OTC dei Governi del G-20.
- Le amministrazioni locali potrebbero avere un certo grado di libertà nell'utilizzo di sofisticati prodotti finanziari come i derivati OTC, ma dovrebbero essere controllati dallo stato centrale.
- Lo scambio di derivati OTC tra operatori non finanziari non è al momento oggetto di intenso monitoraggio e controllo e dovrebbe resa obbligatoria l'adesione al sistema di controparte centralizzata e ai sistemi di scambio con collaterale, al fine di migliorare le loro procedure contabili e di gestione del rischio per fronteggiare in modo efficace i rischi finanziari.

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