

## **Research@theTreasury**

Economic Research and Debate at the Italian Treasury  
Quarterly newsletter  
December 2023



Dipartimento  
del Tesoro

### **LATEST PUBLICATIONS**

#### **L'industria globale dei semiconduttori e il ruolo dell'Italia**

Author: M.R. Pierleoni  
**NT n.3/2023**

La presente nota tematica analizza l'industria dei semiconduttori, le sue principali caratteristiche, i risultati economici conseguiti negli ultimi 20 anni, i principali attori e le loro strategie di investimento. Questa industria assume un'importanza strategica per lo sviluppo economico, tecnologico e militare dei paesi ed è il principale terreno di confronto tra USA e Cina. Nel documento vengono pertanto discusse le azioni di policy intraprese dai Governi dei paesi più coinvolti nella supply chain (USA, Cina, Europa). La nota, inoltre, approfondisce la filiera della microelettronica in Italia ed, in particolare, la tipologia di offerta produttiva, il ruolo del capitale umano, le azioni di policy fino ad ora messe in campo per supportare il settore, e le tendenze dei principali settori utilizzatori.

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#### **Il settore fotovoltaico italiano nel contesto globale. Sviluppo della capacità installata e opportunità per la filiera produttiva**

Author: M. Menghini  
**NT n.2/2023**

Il fotovoltaico giocherà un ruolo centrale nel processo di decarbonizzazione. È quanto emerge dal “World Energy Transition Outlook: 1.5°C Pathway” pubblicato dall’International Renewables Energy Association (IRENA), in cui si evidenzia che lo scenario di contenimento a 1,5 gradi centigradi dell’aumento della temperatura terrestre possa essere raggiunto solo grazie ad ingenti investimenti nelle tecnologie fotovoltaiche, pari a 230 miliardi di dollari all’anno da qui al 2050.

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#### **New to download**

[There has been an awakening”. The rise \(and fall?\) of inflation in the euro area](#)

Relatore: Stefano Neri (Banca d’Italia)  
November 29, 2023 - Rome MEF BBLM

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- [Bank of Italy - Seminars](#)
- [EIEF - Seminars](#)

## **Measuring poverty in Italy: how the AD-HBS dataset can offer new insight**

Authors: M. Aprea, S. Battles, G. Gallo, S. Passeri, M. Palombi, M. Raitano, E. Romano, P. Zoppoli

**WP n.5/2023**

The main goal of this paper is to discuss the merits of the AD-HBS, a novel dataset developed within a joint research project between Directorate I of the Treasury Department and the Department of Economics and Law of Sapienza University of Rome, in relation to poverty measurement, which is central to the Economic well-being domain of the EWS indicators incorporated in the Italian policy making process. The first part of the paper thus discusses some general issues concerning this crucial aspect of economic analysis: relevant poverty concepts, methodological aspects concerning the definition of poverty thresholds, poverty indicators used in the Italian context. The second part of the paper turns to presenting the AD-HBS dataset with specific attention to the various methodological assumptions adopted. In particular, a detailed review of the rich information contained on different aspect of socioeconomic well-being is provided. Finally, the paper points out how the AD-HBS dataset is a precious tool to deepen the understanding of poverty in Italy: among other possible uses, the paper focuses on the joint exploration of multiple aspects of well-being - namely income and consumption expenditure - with a great level of detail. Two examples highlight the importance of jointly considering these two dimensions of well-being: on the one hand, in Italy in 2019, roughly 20% of the households in absolute poverty had an equivalent disposable income above the median; on the other hand, over 20% of households which were not in absolute poverty, lived on very low equivalent disposable incomes (below the absolute poverty threshold, with measurement error in income likely playing a role).

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## **L'economia sommersa nell'Unione Europea: analisi statistica ed implicazioni di policy**

Authors: C. Morvillo, G. Jona Lasinio, B. Maggi

**WP n.4/2023**

L'elaborato affronta le problematiche riguardanti l'economia sommersa attraverso un approccio modellistico. Avvalendosi della letteratura esistente, viene proposta un'analisi che affianca una metodologia consolidata ad una più innovativa per esplorare il tema dell'economia sommersa in ambito europeo.

Uno studio quantitativo sul tema è necessario e utile, anche alla luce degli obiettivi posti in Italia

dal Piano Nazionale di Ripresa e Resilienza (PNRR), che prevede l'adozione della tecnologia a servizio della fiscalità. Infatti, il PNRR si pone in quest'ambito il fine di un maggior sfruttamento delle nuove tecnologie e l'adozione di metodi di data analysis sempre più avanzati.

L'elaborato propone, la stima e valutazione di modelli statistici che attraverso l'individuazione di associazioni tra variabili, cercano di costruire strumenti utili per la politica economica. Uno dei focus del lavoro è infatti l'analisi empirica della relazione esistente tra l'economia sommersa e alcune variabili esplicative. I dati a disposizione sono di tipo panel riguardanti 28 paesi appartenenti all'Unione Europea relativi ad 11 rilevazioni annuali comprese tra il 2005 ed il 2015. I modelli considerati sono efficienti dal punto di vista computazionale e di rapida stima, costituendo uno strumento di analisi utilizzabile in tempo reale, compatibilmente alla disponibilità di dati.

Il working paper è così organizzato: dopo aver illustrato gli obiettivi del lavoro e il contributo rispetto alla letteratura attuale (Capitolo 1), segue una breve descrizione del fenomeno dell'economia sommersa (Capitolo 2). I risultati dell'analisi empirica sui Paesi dell'Unione Europea vengono mostrati nei Capitoli 3 e 4. Infine, il Capitolo 5 riassume le conclusioni del lavoro.

[Read the Paper \(Italian Version\)](#)

## Does the NRRP speed up firms' Twin Transition? Empirical evidence from Italy

Authors: G. Ferri, M. Menghini, M. Pini

WP n.3/2023

The aim of the paper is testing if the National Recovery and Resilience Plan (NRRP) of Italy programs is effectively quickening the Twin Transition of enterprises. Using a unique micro-level database of almost 3,000 firms, our econometric analyses find conspicuous support for the hypothesis that the NRRP is effectively speeding up the Twin Transition. Namely, we show that if a firm is activating NRRP projects four main results attain. First, this will impact the extensive margin, increasing the likelihood of starting the Twin Transition at firms which had never invested in it previously. Moreover, it will affect the intensive margin, raising the probability of enticing firms which had already invested in the Twin Transition to continue investing in it. Thirdly, it will bear on the inclusive margin, whereby the prospect of starting the Twin Transition at firms which had never invested in it previously will be boosted for firms belonging to disadvantaged entrepreneurial segments and areas. Lastly, Twin Transition improves also the performance at firm level. We should highlight as well that the bulk of the previous results is robust

to adopting an instrumental variables approach to tackle the issue of potential endogeneity.

Overall, our results offer strong empirical support to the validity of the EU policies in terms of speeding up the firm-level Twin Transition in the country which provides the most important case study, since Italy is the country which benefited of the largest allotment of NextGeneration EU's funds.

[Read the Paper](#)

### **Structural Reforms in the Italian National Recovery and Resilience Plan: a macroeconomic assessment of their potential effects**

Authors: S. D'Andrea, G. Di Bartolomeo, S. D'Andrea, P. D'Imperio, G. Infantino, M. Meacci  
WP n.2/2023

This paper assesses the potential macroeconomic impact of the critical structural reforms designed within the Italian Recovery and Resilience Plan (RRP). Reforms are investigated by a large-scale dynamic stochastic general equilibrium macro-model, adapted to capture the effects of the RRP measures. Exploiting the RRP official documents, we scrutinize and catalog detailed data from 482 milestones and 665 policy targets relevant to our assessment. Each reform is then mapped onto the model and simulated, showing its transmission mechanisms and macroeconomic and social impact. We document a significant potential impact on medium- and long-term GDP. The efficacy of the reform package emerges in the long run. In 2050, GDP would be 10% higher than in the alternative scenario where no reform is implemented. However, sizeable effects will be observed since 2026, when observed GDP would rise by 3.4%. The labour market and education measures primarily drive the impact of the reforms on GDP and employment. We also explore the distributional effects of the reform program. We find that a significant labour and capital income increase accompanies the aggregate positive effect on output.

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### **The Italian Treasury Dynamic Microsimulation Model (T-DYMM): data, structure and baseline results**

Authors: R. Conti, M. Bavaro, S. Boscolo, E. Fabrizi, C. Puccioni, O. Ricchi, S. Tedeschi  
WP n.1/2023

The Treasury Dynamic Microsimulation Model (T-DYMM) is a dynamic microsimulation model (DMM) owned by the Department of the Treasury of the Italian Ministry of Economy and Finance. One of the very few DMMs presently operating in Italy, it

has been developed through three research projects, spanning from 2009 to 2021. The present article is intended to provide a general and comprehensive description of T-DYMM. The model, based on the AD-SILC dataset, which matches administrative and survey data, delivers long-term projections and is organised in five modules: demographic, labour market, pension, wealth and tax-benefit (the last two contain the most relevant novelties of the present version of T-DYMM). The broad aim of the model is to provide long-term analyses of the Italian social security system, with a focus on pension and social protection adequacy and their distributional characterization.

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## UNDER REVIEW FOR PUBLICATION

### Nowcasting after the Pandemic: New Challenges and Future Developments

Authors: L. Pangallo, C. Tinti

### AI in Public Settings: Status and Next Steps”

Authors: L. Gastaldi, M. Petrocelli, L. Rinaldi, A, Rollin.

Questa nuova newsletter presenta le occasioni di dibattito e i contributi di ricerca sui temi economico-finanziari del Dipartimento del Tesoro. Il vostro parere per noi è importante, potete scriverci a [dt.segreteria.direzione1@tesoro.it](mailto:dt.segreteria.direzione1@tesoro.it).

This is the new edition of the Italian Treasury newsletter presenting papers, presentations and seminars on economic and financial issues. If you have any comments or suggestions feel free to write us at [dt.segreteria.direzione1@tesoro.it](mailto:dt.segreteria.direzione1@tesoro.it).

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