

INTERNATIONAL MONETARY FUND

Options to Strengthen the Social Safety Net in Japan

Japan

Zhiyong An and Kohei Asao

SIP/2023/033

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed in March 2023. This paper is also published separately as IMF Country Report No 23/128.

2023
MAY



SELECTED ISSUE PAPER

IMF Selected Issues Paper
Asia and Pacific Department

Options to Strengthen the Social Safety Net in Japan
Prepared by Zhiyong An and Kohei Asao

Authorized for distribution by Ranil Salgado
May 2023

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed in March 2023. This paper is also published separately as IMF Country Report No 23/128.

ABSTRACT: Japan’s unemployment rate remains relatively low compared to other OECD countries. However, Japan’s poverty rate among the working-age population is one of the higher ones among OECD countries. The public assistance program in Japan does not provide adequate income support for the working poor and creates inherent work disincentives. In this context, the Earned Income Tax Credit (EITC) warrants consideration to strengthen the social safety net and relieve poverty of the working poor in Japan. This paper provides an overview of the theoretical and practical issues of EITC, aiming to support its potential introduction in Japan.

RECOMMENDED CITATION: An, Zhiyong, and Kohei Asao. 2023. “Options to Strengthen the Social Safety Net in Japan.” IMF Selected Issues Paper (SIP/2023/033). Washington, D.C.: International Monetary Fund.

JEL Classification Numbers:	D31, J28, J68, H21, H24
Keywords:	Social safety net, working poor, inequality, public assistance, in-work benefits, Earned Income Tax Credit (EITC), Japan.
Author’s E-Mail Address:	Zan2@imf.org , Kasao@imf.org

SELECTED ISSUES PAPERS

Options to Strengthen the Social Safety Net in Japan

Japan

Prepared by Zhiyong An and Kohei Asao ¹

¹ The authors would like to thank Pablo Lopez Murphy, Mauricio Soto, and the Japanese authorities for providing helpful comments.



JAPAN

SELECTED ISSUES

March 2023

Approved By
**Asia and Pacific
Department**

Prepared By Zhiyong An and Kohei Asao.

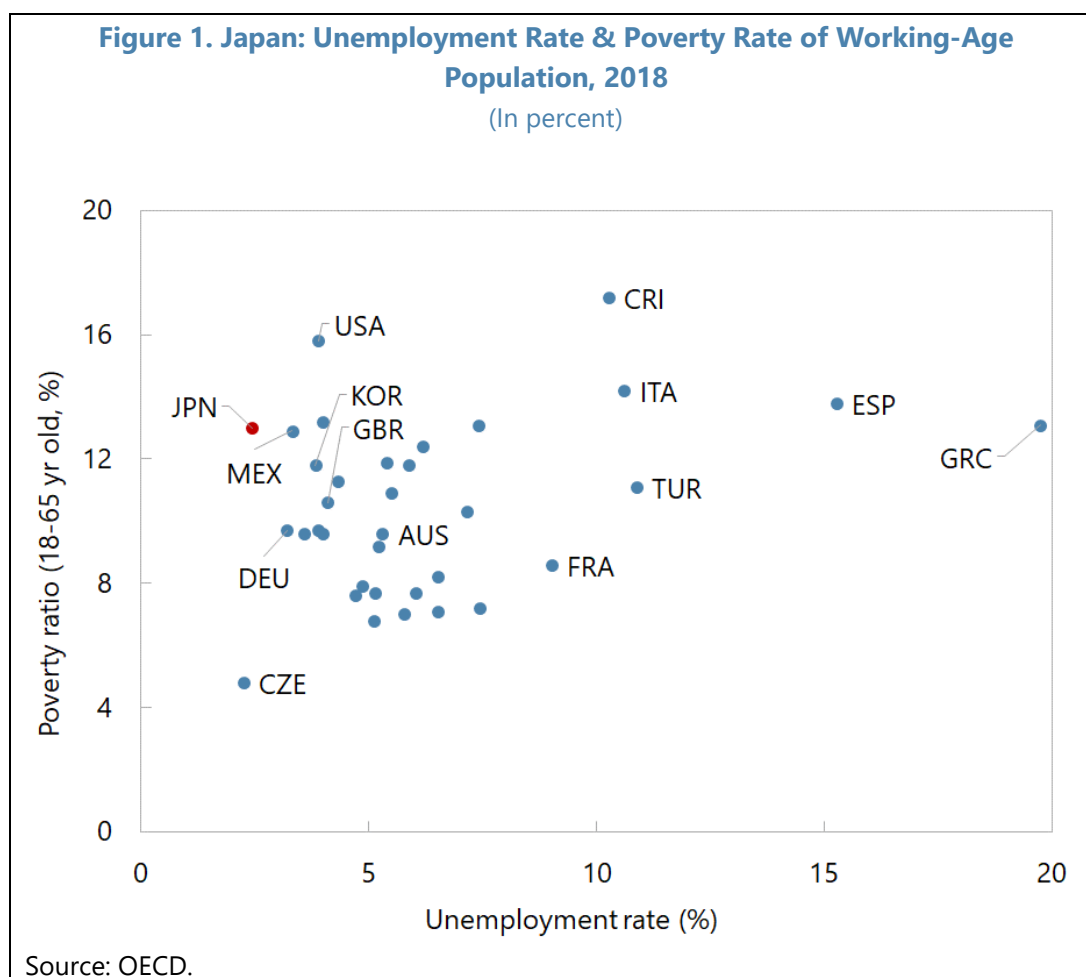
CONTENTS

OPTIONS TO STRENGTHEN THE SOCIAL SAFETY NET IN JAPAN	<u>2</u>
A. Introduction	<u>2</u>
B. The EITC in Theory	<u>5</u>
C. The EITC in OECD Countries	<u>6</u>
D. Key Policy Issues	<u>7</u>
BOX	
1. The Public Assistance Program in Japan	<u>4</u>
FIGURES	
1. Unemployment Rate and Poverty Rate of the Working-Age Population, 2018	<u>2</u>
2. Average Annual Income: Regular Versus Non-Regular Workers	<u>3</u>
References	<u>11</u>

OPTIONS TO STRENGTHEN THE SOCIAL SAFETY NET IN JAPAN¹

A. Introduction

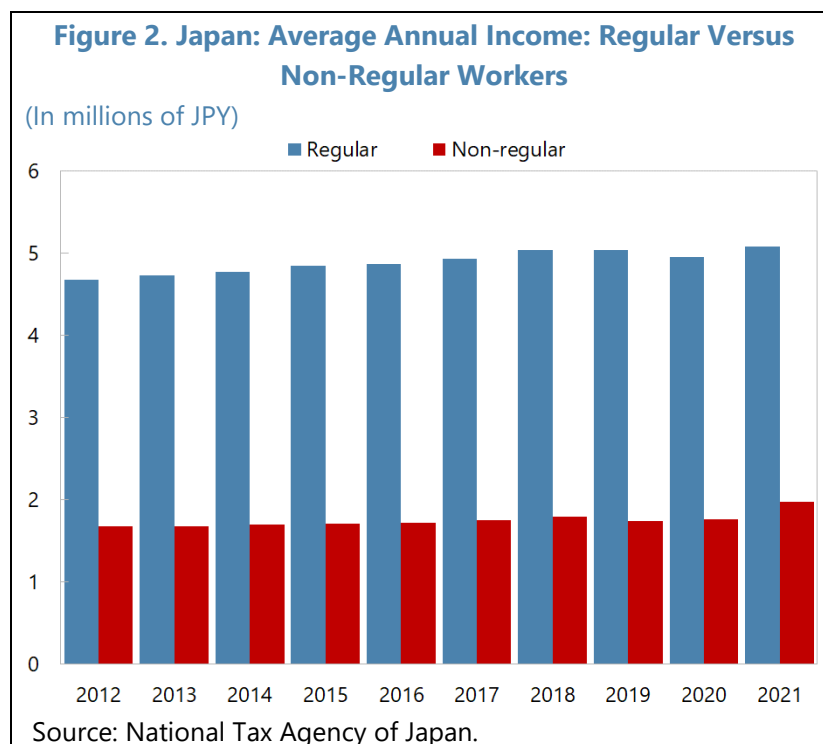
1. **The high poverty rate of the working-age population is a long-standing social and economic issue in Japan.**² Japan's unemployment rate continues to remain relatively low compared to other OECD countries. However, Japan's poverty rate of the working-age population is one of the higher ones among OECD countries after a gradual rise since the 1980s, despite a deduction in recent years (Figure 1).³



¹ Prepared by Zhiyong An (FAD) and Kohei Asao (APD).

² The working-age population refers to those people between 18 and 65 years old.

³ The poverty rate is defined as the share of the people whose income falls below half of the median household income. Japan's poverty rate is derived from the Comprehensive Survey of Living Conditions conducted once every three years by the Ministry of Health, Labour, and Welfare (MHLW) of Japan.



2. This high poverty rate in Japan is closely linked with the widespread non-regular employment.⁴ The number of non-regular workers such as fixed-term contract workers, part-time workers, and dispatched workers has increased in recent decades, accounting for about 40 percent of total employment (IPSS, 2019). Non-regular workers suffer from a variety of problems like unstable employment, low wages, and poor development opportunities. The average annual income of non-regular workers falls below 2 million JPY and is less than half of that of regular workers (Figure 2).⁵

3. The public assistance program in Japan does not provide adequate income support for the working poor and creates inherent work disincentives (Box 1). First, more than half of the public assistance recipients are elderly households, and the share of the recipients with a disabled or sick individual is also large. This suggests that the public assistance program may not provide adequate income support for the working poor. Second, because the amount of assistance is calculated by subtracting the household income from the minimum living expenses, the public assistance program creates inherent work disincentives for the working poor. For example, if a worker's annual income is less than the minimum living expenses, he may be induced to not work at all by the public assistance program.

⁴ Regular/non-regular employment and permanent/temporary employment are, in general, synonymous.

⁵ The working poor in Japan is domestically understood to be those whose annual income is less than 2 million JPY.

Box 1. The Public Assistance Program in Japan

The public assistance program has its legal basis on the Public Assistance Act enacted in 1950. It is founded on four fundamental principles. First, public assistance to all citizens in poverty is a responsibility of the State. Second, all citizens may receive public assistance in a nondiscriminatory and equal manner if they satisfy the requirements prescribed by this Act. Third, the State guarantees a minimum standard of living where a person can maintain a wholesome and cultured standard of living. Finally, the provision of public assistance is conditioned on a person who is living in poverty shall utilizing his/her assets, abilities, and every other thing available to him/her for maintaining a minimum standard of living.

The public assistance program in Japan comprises eight types of assistance, namely, livelihood, education, housing, medical, long-term care, maternity, occupational, and funeral assistance, among which the livelihood assistance is the major one. The amount of assistance is calculated by subtracting the household income from the minimum living expenses that can be different depending on region, family structure, etc. The livelihood assistance is provided as cash transfers.

Public assistance is means-tested just as suggested by the fourth principle mentioned above. Assets such as land, houses, and farms must be sold, except in the case where the person is living in or utilizing them and the value of the assets is higher when being utilized than being sold. Regarding the ability to work, if a person can work and there is an adequate job for him/her where he/she is living, he/she must use that ability in precedence over public assistance. However, the person can receive public assistance if household income including working income does not reach the minimum living expenses. After receiving an application from a household in poverty, public assistance is provided upon passing the means test.

The number of public assistance recipients has been increasing since the mid-1990s. As of July 2016, about 1.6 million households received public assistance, among which elderly households take the largest share (over 50 percent) which has been increasing over the past several decades. Households with a disabled or sick individual also take a large share at about 26 percent. Single-mother households contribute to about 6 percent of recipients. Regarding the duration of receiving assistance, the average duration is long with merely about 10 percent of the recipients having been on the program for less than a year but about 30 percent having been on the program for more than ten years. The long duration is probably not surprising because most of the recipients are elderly people.

Note: This box draws heavily from IPSS (2019).

4. The Earned Income Tax Credit (EITC) warrants consideration to relieve poverty of the working poor in Japan. The prior discussions suggest that the Japanese economy faces the following four problems: (1) low unemployment rate but high poverty rate of the working-age population; (2) widespread non-regular employment; (3) limited income support provided by the public assistance program for the working poor; and (4) inherent work disincentives created by the public assistance program for the working poor. These problems all suggest that EITC warrants consideration in Japan given the following background:

- **EITC programs have grown in popularity in advanced economies (AEs) in recent decades.** Both the United States (US) and the United Kingdom (UK) have had EITC programs for a long period, about four or more decades. In Germany, it was included as part of the country's broader labor market reforms in the early 2000s. Denmark and Sweden have implemented EITC programs since 2004 and 2007, respectively. As of 2009, 16 of the 30 OECD countries have

operated EITC programs (Immervoll and Pearson, 2009). Some AEs have also substantially expanded their EITC programs over time. For example, since its inception in 1975 as a modest program aimed at offsetting the social security payroll tax for low-income families with children, the EITC in the US has grown to become one of its largest anti-poverty programs.

- **The increasing popularity of EITC programs reflects growing concerns about the work disincentives inherent in means-tested anti-poverty programs and the need to support the working poor.** Many AEs have long relied on means testing of anti-poverty transfers as a way of reducing the fiscal cost of such programs (Friedman, 1962; Tobin, 1966; Brewer et al., 2009; Coady et al., 2021). However, the use of such programs has also resulted in concerns about the work disincentives inherent in such means testing and a growing awareness of the need to support the incomes of the working poor. The EITC is seen as a way of addressing these dual concerns.
- **Introducing an EITC in Japan can additionally help address ageing population by boosting employment and labor supply.** The Japanese population is ageing thanks to both declining fertility rate and steadily increasing life expectancy (IPSS, 2019). In 2017, the elderly (i.e., aged 65 years or over) accounted for about 27.6% of the total population, the highest in the world. Plus, the share of the elderly has been projected to reach as high as about 38.4% in 2065.
- **The idea of EITC is also consistent with Prime Minister Fumio Kishida’s proposal for a “New Form of Capitalism”.** The key concept of the “New Form of Capitalism” proposed by Prime Minister Fumio Kishida is to achieve a virtuous cycle for economic growth mainly through labor market policies and a more equitable distribution of the accruing benefits. Because an EITC can facilitate redistribution to low-income workers and boost employment and labor supply, it can be an important policy instrument to advance this initiative.

5. This paper provides an overview of the theoretical and practical issues of a EITC, aiming to support its potential introduction in Japan. We start by providing a brief review of the theoretical literature on the role of an EITC. The experience in OECD countries is then covered in the form of a summary of a review by Immervoll and Pearson (2009). Finally, we identify key design and implementation issues that country authorities need to consider when introducing an EITC.

B. The EITC in Theory

6. The theoretical analysis suggests that an EITC can be part of the optimal income tax schedule. The standard optimal income taxation model pioneered by Mirrlees (1971) did not support any role for an EITC because in this model the optimal marginal income tax rate is always non-negative. Numerous papers have since extended the standard model in four distinct directions. First, it has been extended to allow individual labor supply to respond along both the intensive (i.e., hours of work) and extensive (i.e., labor force participation) margins (Diamond, 1980; Saez, 2002).⁶ Second, it has been extended to allow for two-dimensional informational asymmetry between the

⁶ See also Jacquet et al. (2013) for a similar model based on a continuum of earnings and skill levels.

government and individuals (Choné and Laroque, 2010).⁷ Third, it has been extended to allow for individual failures (Gerritsen, 2016; Farhi and Gabaix, 2020; Lockwood, 2020). Finally, it has been extended to allow for non-welfarist social welfare functions (Kanbur et al., 1994; An and Coady, 2022). These four distinct extensions all suggest that an EITC can be part of the optimal income tax schedule.

7. Standard labor supply theory suggests that there is likely to be a trade-off between the employment and poverty alleviation objectives motivating an EITC. The introduction of an EITC will tend to increase aggregate employment by inducing some non-workers to enter the labor force thereby shifting the labor supply curve downwards to the right. This in turn will tend to increase the post-EITC wages facing workers but decrease the post-EITC wages facing employers.⁸ The more elastic the labor demand curve, the greater (smaller) the share of the EITC benefit that is captured by workers (employers).⁹ In addition, the greater the share of the EITC benefit captured by workers (and thus the greater the poverty alleviation impact) the lower the employment impact and vice versa.

C. The EITC in OECD Countries

8. Evidence for OECD countries shows that EITC programs can take many forms involving different design features. According to the review by Immervoll and Pearson (2009), EITC programs differ along many relevant dimensions. For example, tax concessions or social contribution reductions are in place for some countries (e.g., Belgium, Finland, Germany, Netherlands), while many other countries provide refundable tax credits (e.g., Canada, France, the US, the UK). To target the EITC benefit to relevant groups (e.g., the unemployed or low-income individuals), eligibility and benefit amounts can depend on a range of characteristics and circumstances including having children, working a minimum number of hours, receiving income from work, or entering employment. All EITC programs use at least one of these conditions or they feature gradual phase-ins or phase-outs as a means of targeting individuals at specific earning levels or working hours. It is notable that for about half of EITC programs eligibility is restricted to working families with children, reflecting a particular concern for child poverty and wellbeing. To target low-income individuals, incomes can be assessed individually for the benefit recipient or jointly for the couple or the family.

9. The EITC is a critical income support for working families. For example, in the US in 2019, 25 million working households received about \$63 billion nationwide, with an average benefit

⁷ See also Sandmo (1993), Cuff (2000), and Boadway et al. (2002) for early models, and a more recent contribution by Lockwood and Weinzierl (2015).

⁸ What's more, because recipients of an EITC benefit compete in the same labor market as others who are ineligible for the benefit (even when they are not perfect skill substitutes), these wage rate declines can extend to many workers who are ineligible for the benefit. See Leigh (2010), Rothstein (2010), and Azmat (2019) for more discussions.

⁹ A basic result in the economics of taxation is that the economic incidence of taxes depends on the relative elasticities of supply and demand for the good being taxed, and not on their statutory incidence (Fullerton and Metcalf, 2002). In the Mirrlees (1971) model, wages are assumed to be fixed so that the EITC benefit is fully captured by the worker.

of approximately \$2,500 (Linos et al, 2022). In the UK in 2016-17, 2.9 million working families received about £19.3 billion, with an average benefit of around £6,700 (Brewer and Hoynes, 2019).

D. Key Policy Issues¹⁰

10. Articulating the primary objective. The decision on whether to adopt an EITC and how to design and implement it should be based on well-defined policy objectives, especially regarding whether the primary objective is to address in-work poverty or promote employment. In particular, the theoretical literature highlights that there is likely to be a trade-off between these two objectives in practice. Therefore, the primary objective needs to be carefully articulated at the very beginning. In this regard, given the low unemployment rate but high poverty rate of the working-age population in Japan, addressing in-work poverty could be set as the primary objective at least in the short run. That said, as ageing population will likely become even more severe over time, the primary objective may need to shift to boosting labor force participation in the long run.

11. Addressing existing policy anomalies. Existing policies can run counter to the policy objectives of an EITC. Therefore, it is important to first examine ways of addressing existing policy anomalies. These include:

- **Labor taxes.** High existing labor income taxes (e.g., payroll taxes) at low earnings levels run counter to the poverty alleviation and employment promotion objectives. In such cases, consideration should be given to using tax reductions targeted at low earners. Reducing the cost of labor to the employer can increase labor demand as well as after-tax wages for low-income workers. In this regard, it would be essential for the Japanese authorities to examine the country's personal income tax system, including both its base and rate schedule. The theoretical literature suggests that the optimum depends on the distribution of individual skills (i.e., wage rates), individual labor supply responses, the government's preference for redistribution, the differences in social and individual work preferences, etc.
- **Out-of-work benefits.** Where eligibility criteria for out-of-work benefits are not strict and benefit levels are generous, reforms should focus on strengthening the link between benefit levels and earnings. To this end, it would be essential for the Japanese authorities to assess the country's public assistance program, including both its eligibility criteria and benefit levels. For example, the eligibility for the public assistance program in Japan is independent of employment status; but this may need to be reformed.

12. Designing an EITC. EITC programs can take many forms involving different design features, suggesting that there are difficult design issues that need to be resolved in developing an EITC program. Resolving these design issues in general hinges on the primary objective articulated at the beginning. Specifically, if the primary objective is to address in-work poverty, then EITC benefit levels should be linked to family structure (e.g., the number of children) and household income rather than individual income, but not to working hours or earnings thresholds. In addition, for the purposes of

¹⁰ This section draws heavily on the discussion in An and Coady (2021).

addressing in-work poverty, EITC benefits should be delivered in real time (e.g., monthly), and the self-employed be included. We discuss these design issues in detail as below:

- **Definition of income.** From the perspective of alleviating poverty, benefit levels should be linked to total household income including, for example, capital income and earnings arising from employment or self-employment. However, if the primary objective is to promote employment, then individual earnings may be the more appropriate income base for determining benefit levels.
- **Linking benefits to family structure.** Since welfare depends on family per capita income (rather than just individual earnings), poverty alleviation objectives are best achieved by linking benefit levels to family composition, such as the number of children, as well as to individual earnings. For example, one may not wish to use scarce public resources to provide income support to the spouse of a highly paid executive. Consistent with this, many countries provide more generous benefits for workers with children. For example, in the US, the level of EITC benefits increases with family size, with the maximum possible credit for families with three or more children and childless workers receiving substantially lower benefits. In many countries (including the UK), while income tax is levied on an individual basis, benefits are linked to family income. Experience shows that it is possible to deliver a tax credit based on family circumstances in a tax system that uses individuals as the basic unit of personal income taxation. Therefore, although the levy of income tax is based on the individual in Japan, the possibility of linking EITC benefits to family structure cannot be excluded. However, in such systems it is important that the difficulties of claiming a family-based credit in an individual-based tax system does not undermine take-up rates.
- **Use of working hours or earnings thresholds.** On one hand, linking eligibility for EITC benefits to working hours or earnings thresholds provides stronger incentives to work more hours. Such restrictions can also reduce fiscal costs since payments do not need to be made to workers with working hours or earnings under the thresholds. On the other hand, such restrictions can impose a significant additional administrative burden.¹¹ In addition, as a flip side of lowering fiscal costs, the use of working hours or earnings thresholds is not likely attractive from a poverty alleviation perspective since those excluded will not receive benefits. If this is the case, it may be possible to target such restrictions at less vulnerable workers (e.g., single adults) and condition the receipt of additional benefits on job search and training participation.
- **Frequency and timing of payments.** The frequency and timing of payments are also often seen as important both in terms of alleviating poverty (low-income workers may face liquidity constraints) and incentivizing employment (so individuals recognize labor supply incentives). In the UK, tax credits are reflected in the withholding from wages so that the credit appears in the regular paycheck. This has the advantage of allowing recipients to receive their benefits contemporaneously with their earnings to finance regular basic needs, as well as of tightening

¹¹ This may be particularly true for working hours limits since hours information is typically not required to implement an income tax and accurately monitoring hours can prove to be overburdensome.

the perceived link between income and labor supply decisions. In the US, while it was previously possible for beneficiaries to receive frequent payments, this option was removed since most opted for annual payments. However, such behavior possibly reflected information constraints rather than individual preferences.

- **Treatment of the self-employed.** Self-employed workers present a special challenge for all income tax and transfer systems since it can be difficult to verify their income for the purposes of determining net income tax payments. Therefore, where self-employment is prevalent, adopting a refundable tax credit invites fraudulent claims and raises difficult administrative issues. At the same time, for the purposes of addressing in-work poverty, it is important to include the self-employed, and leaving them out can result in pressures to introduce some other tax benefit for them which can result in overly complex systems. It is therefore important that the extension of EITC eligibility to the self-employed is accompanied by effective measures to ensure adequate levels of tax compliance among this group.

13. Implementing an EITC. The effectiveness of an EITC in achieving underlying policy objectives requires that country authorities have the capacity to implement the program. Implementation of a comprehensive EITC programs requires high levels of tax filing among the target population and a strong system of assessment for the personal income tax. If most taxpayers are required to lodge income tax returns or an effective withholding tax system is already in place, then a EITC program should be relatively inexpensive to administer. Otherwise, the cost of introducing an EITC can be substantial. In terms of implementation, introducing an EITC in Japan would entail three administrative challenges.¹² First, most employees in Japan do not file annual tax returns. This is because labor income taxes are withheld at source and adjusted annually by their employers, and investment income is withheld at source in many cases. Second, information sharing is insufficient among the ministries, local governments, and public corporations. For example, although Japan's National Tax Agency collects employees' income information from employers, its coverage is partial. Local governments gather data of residents' incomes, but such data are not aggregated by a central agency. The last challenge is delivery of payments. This is because transfers between bank accounts are widely-accepted means of payment, but taxpayers do not register information of their bank accounts with Japan's National Tax Agency yet. However, these three administrative challenges can be overcome by: (1) making annual tax returns mandatory while providing individuals with pre-filled tax returns; (2) utilizing the My Number taxpayer identification system launched in 2016 to improve information collection, sharing and management; and (3) linking the bank account to the My Number of each taxpayer for the purpose of delivering benefits.

14. Overcoming information constraints or knowledge barriers. The effectiveness of an EITC in achieving underlying policy objectives also requires that those eligible are aware of these benefits and understand the inherent incentives for increasing their labor supply. Country authorities should therefore take measures to overcome any information constraints or knowledge barriers through

¹² Japanese researchers proposed the idea of introducing an EITC in Japan as early as 2009 (e.g., Morinobu, 2009). Probably due to administrative challenges, proposals failed to receive positive responses from Japanese authorities. However, conditions have changed since then.

informational outreach efforts or other sources such as peer networks (Maag, 2005; Chetty et al., 2013). It is also important to simplify the broader tax and benefit system within which an EITC is embedded and ensure that potential beneficiaries can easily understand how various components of the tax and benefit system interact (Azmat, 2014).

15. Monitoring and evaluating the impact of an EITC. Adequate resources need to be allocated to monitoring and evaluating how the EITC is impacting employment and wage levels to ensure the policy is achieving its objectives and to avoid unintended adverse consequences. This requires careful analysis of employment and wage outcomes for different household and skill types both before and after the policy is introduced.

References

An, Zhiyong, and David Coady, "Wage Subsidies in Theory and Practice," *mimeo*, 2021 (Washington, DC: International Monetary Fund).

An, Zhiyong, and David Coady, "Social versus Individual Work Preferences: Implications for Optimal Income Taxation," *FinanzArchiv/Public Finance Analysis*, 2022, 78(4), 393-421 .

Azmat, Ghazala, "Evaluating the Effectiveness of In-Work Tax Credits," *Empirical Economics*, 2014, 46, 397-425.

Azmat, Ghazala, "Incidence, Saliency and Spillovers: The Direct and Indirect Effects of Tax Credits on Wages," *Quantitative Economics*, 2019, 10, 239-273.

Boadway, Robin, Maurice Marchand, Pierre Pestieau, and Maria Del Mar Racionero, "Optimal Redistribution with Heterogeneous Preferences for Leisure," *Journal of Public Economic Theory*, 2002, 4, 475-498.

Brewer, Mike, Marco Francesconi, Paul Gregg, and Jeffrey Grogger, "Feature: In-Work Benefit Reform in a Cross-National Perspective - Introduction," *Economic Journal*, 2009, 119(535), F1-F14.

Brewer, Mike, and Hilary W. Hoynes, "In-Work Credits in the UK and the US," *Fiscal Studies*, 2019, 40(4), 519-560.

Chetty, Raj, John N. Friedman, and Emmanuel Saez, "Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings," *American Economic Review*, 2013, 103(7), 2683-2721.

Choné, Philippe, and Guy Laroque, "Negative Marginal Tax Rates and Heterogeneity," *American Economic Review*, 2010, 100, 2532-2547.

Coady, David, Samir Jahan, Riki Matsumoto, and Baoping Shang, "Guaranteed Minimum Income Schemes in Europe: Landscape and Design," *IMF Working Paper No. 2021/179*, 2021.

Cuff, Katherine, "Optimality of Workfare with Heterogeneous Preferences," *Canadian Journal of Economics*, 2000, 33, 149-74.

Diamond, Peter, "Income Taxation with Fixed Hours of Work," *Journal of Public Economics*, 1980, 13, 101-110.

Farhi, Emmanuel, and Xavier Gabaix, "Optimal Taxation with Behavioral Agents," *American Economic Review*, 2020, 110(1), 298-336.

Friedman, Milton. *Capitalism and Freedom*. 1962. Chicago: University of Chicago Press.

Fullerton, Don, and Gilbert E. Metcalf, "Tax Incidence," In: *Handbook of Public Economics*, Alan J. Auerbach and Martin Feldstein (eds.), 2002, Vol. 4, 1787-1872. New York: North-Holland.

Gerritsen, Aart, "Optimal Taxation when People Do Not Maximize Well-Being," *Journal of Public Economics*, 2016, 144, 122-139.

Immervoll, Herwig, and Mark Pearson, "A Good Time for Making Work Pay? Taking Stock of In-Work Benefits and Related Measures across the OECD," *IZA Policy Paper No. 3*, 2009.

Jacquet, Laurence, Etienne Lehmann, and Bruno Van der Linden, "Optimal Redistributive Taxation with Both Extensive and Intensive Responses," *Journal of Economic Theory*, 2013, 148(5), 1770-1805.

Kanbur, Ravi, Michael Keen, and Matti Tuomala, "Optimal Non-linear Income Taxation for the Alleviation of Income-Poverty," *European Economic Review*, 1994, 38, 1613-1632.

Leigh, Andrew, "Who Benefits from the Earned Income Tax Credit? Incidence among Recipients, Coworkers and Firms," *B.E. Journal of Economic Analysis & Policy*, 2010, 10(1), Article No. 45.

Linos, Elizabeth, Allen Prohofsky, Aparna Ramesh, Jesse Rothstein, and Matthew Unrath, "Can Nudges Increase Take-Up of the EITC? Evidence from Multiple Field Experiments," *American Economic Journal: Economic Policy*, 2022, 14(4), 432-452.

Lockwood, Benjamin B., "Optimal Income Taxation with Present Bias," *American Economic Journal: Economic Policy*, 2020, 12(4), 298-327.

Lockwood, Benjamin B., and Matthew Weinzierl, "De Gustibus non est Taxandum: Heterogeneity in Preferences and Optimal Redistribution," *Journal of Public Economics*, 2015, 124, 74-80.

Maag, Elaine, "Paying the Price? Low-Income Parents and the Use of Paid Tax Preparers," *New Federalism: National Survey of America's Families*, 2005, No. B-64.

Mirrlees, James A., "An Exploration in the Theory of Optimal Income Taxation," *Review of Economic Studies*, 1971, 38(2), 175-208.

Morinobu, Shigeki, "From Cash Handouts to Refundable Tax Credits," 1/21/2009 (Tokyo, Japan: The Tokyo Foundation for Policy Research).

National Institute of Population and Social Security Research (IPSS), "Population and Social Security in Japan," *IPSS Research Report No. 85*, 2019.

Rothstein, Jesse, "Is the EITC as Good as an NIT? Conditional Cash Transfers and Tax Incidence," *American Economic Journal: Economic Policy*, 2010, 2(1), 177-208.

Saez, Emmanuel, "Optimal Income Transfer Programs: Intensive versus Extensive Labor Supply Responses," *Quarterly Journal of Economics*, 2002, 117(3), 1039-1073.

Sandmo, Agnar, "Optimal Redistribution When Tastes Differ," *FinanzArchiv/Public Finance Analysis*, 1993, 50(2), 149-163.

Tobin, James, "On Improving the Economic Status of the Negro," *Daedalus*, 1966, 94(4), 878-898.