



Testing and measurement of dependent contractors

Confirming the target population ¹

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Abbreviations and acronyms

ABS	Australian Bureau of Statistics
AHM	Ad hoc module
ENOE	Encuesta Nacional de Ocupación y Empleo (National Survey of Occupation and Employment)
EU	European Union
EU LFS	European Labour Force Survey
Eurofound	European Foundation for the Improvement of Living and Working Conditions
Eurostat	The statistical office of the European Union
FAO	Food and Agriculture Organization of the United Nations
ICLS	International Conference of Labour Statisticians
ICSE	International Classification of Status in Employment
ILO	International Labour Organization
INSEE	Institut national de la statistique et des études économiques (National Institute of Statistics and Economic Studies, France)
Istat	Istituto Nazionale di Statistica (National Statistical Institute, Italy)
LFS	Labour Force Survey
OECD	Organisation for Economic Co-operation and Development
UN	United Nations
US	United States (of America)

1. Introduction

1. The revised International Classification of Status in Employment (ICSE-18) adopted by the 20th International Conference of Labour Statisticians (ICLS) in October 2018 includes a new category for “dependent contractors”. This refers to workers who fall between the traditional concepts of paid employment and self-employment. These workers are sometimes referred to as the “dependent self-employed”, described in an ILO report to the International Labour Conference in 2003 as those “who perform work or provide services to other persons within the legal framework of a civil or commercial contract, but who in fact are dependent on or integrated into the firm for which they perform the work or provide the service in question” (ILO, 2003, p. 6).
2. Information about this group, is needed to inform policy debate concerning non-standard forms of employment, employment creation and access to adequate social protection for all workers, as well as to assess the extent to which these arrangements provide flexibility for both workers and employers and provide opportunities for labour market participation, so as to evaluate the effectiveness of labour market policies, especially in relation to regulation and deregulation of the labour market..
3. The 20th ICLS resolution concerning statistics on work relationships states that dependent contractors are:

.... workers who have contractual arrangements of a commercial nature (but not a contract of employment) to provide goods or services for or through another economic unit. They are not employees of that economic unit, but are dependent on that unit for organization and execution of the work, income, or for access to the market. They are workers employed for profit, who are dependent on another entity that exercises control over their productive activities and directly benefits from the work performed by them.
4. The ILO *Data collection guidelines for ICSE-18* recommend identifying dependent contractors in household surveys according to two streams based on the responses to traditional self-identification questions on status in employment: those who say they work for someone else, and those who say they are self-employed. Those who self-identify as working for someone else, or as employees, are classified as dependent contractors if they do not receive a wage or salary for time worked and the employer does not take responsibility for deduction of taxation or for contribution to social insurance. Those who identify themselves as self-employed should be classified as dependent contractors if they operate an unincorporated enterprise without employees and *are operationally and/or economically dependent on another economic unit that exercises control over their activities*. Various approaches to the operational measurement of this dimension of dependence have been tested both during and after development of the ICSE-18. They include but are not restricted to, the following:
 - the client or an intermediary determines the price for the goods produce or services provided (price control approach);
 - the work is organized or supervised by one main client or intermediary (main client approach);
 - the client or an intermediary provides the material input, such as access to raw materials, capital items or clients (upstream dependency);
 - the two-step approach which aims firstly to establish whether there is a dependent relationship, and secondly whether the actor on which the worker is dependent exercises control over the worker’s productive activities.

5. There is concern, however, that the various approaches tested identify populations with different characteristics and limited overlap. In some cases, unexpected populations were identified raising doubts about the suitability of certain approaches, or perhaps suggesting that complex derivation procedures might be needed to exclude workers in certain occupations or economic activities from being counted. For example, in some countries there was surprise that the pricing approach resulted in the identification of significant numbers of farmers. As we shall see, however, there are circumstances in which operators of small farms may be dependent on large corporations for both material inputs and determination of the price paid.
6. The question that needs to be answered is whether or not groups such as farmers, and various others identified using the different approaches, correspond to the population that we need to identify in order to inform policy debate on dependent self-employment. There is a need therefore for follow-up investigation and analysis to determine the extent to which the approaches tested identify the intended population of dependent contractors. These studies should focus on whether they identify individuals who should not be included in the group (false positives) and the extent to which they miss important groups.
7. Two types of investigation might cast some light on whether individuals tentatively identified as dependent contractors have the characteristics one might expect to find:
 - a) Analysis of other variables (such as occupation, income) included in a test or survey dataset;
 - b) Follow-up interviewing of respondents identified as dependent contractors using qualitative research to better understand their situation.
8. In this paper we seek to clarify the characteristics that might be used to confirm that individuals or groups identified as dependent contractors according to particular methods should indeed correctly be classified as dependent contractors, focussing mainly on those identified as self-employed in response to an initial question on status in employment. First we discuss the concept of dependent contractors that needs to be measured to inform policy, the characteristics that we might expect them to have in different contexts, and consider in detail some specific groups for which determination of dependent contractor status might be problematical. We then discuss the main approaches to measurement that have been tested, and the rationale for and advantages of each approach. Finally, we suggest the variables and questions that could be used to confirm that an individual or group should be included in or excluded from the population of dependent contractors.

2. What concept of dependent contractors do we need to measure?

9. The critical issue is to determine whether workers employed for profit who self-identify as self-employed or independent workers are, in reality, dependent workers or independent workers. According to the 20th ICLS Resolution 1, "Dependent workers are workers who do not have complete authority or control over the economic unit for which they work. If they are in employment for profit they have no employees, and do not make the most important decisions about the activities of the economic unit for which they work."
10. Reflecting this concept of dependent workers, the definition of dependent contractors excludes workers who employ one or more other persons to work for them on a regular basis as an employee. It also excludes workers who operate an incorporated enterprise even if they have no employees other than themselves. In these cases, having employees or owning and operating an incorporated enterprise are assumed to be indicators of a certain degree of control over the operation of a business, even if the business is economically or

operationally dependent or on one or more other entities.² This also establishes a clear boundary between dependent contractors, and the ICSE-18 categories for employers and for owner-operators of corporations.

- 11.** For the remaining workers initially identified as self-employed it is necessary to determine whether they are dependent for organization and execution of the work, income, or for access to the market on another entity that exercises control over their productive activities and directly benefits from the work performed by them. The resolution provides further guidance by specifying that:
 - a) Their dependency may be of an operational nature, through organization of the work and/or of an economic nature such as through control over access to the market, the price for the goods produced or services provided, or access to raw materials or capital items.
 - b) The economic units on which they depend may be market or non-market units and include corporations, governments and non-profit institutions which benefit from a share in the proceeds of sales of goods or services produced by the dependent contractor, and/or benefit when the work performed by dependent contractors may otherwise be performed by its employees.
 - c) The activity of the dependent contractor would potentially be at risk in the event of termination of the contractual relationship with that economic unit.

- 12.** Despite this last statement, it is not sufficient that the activity of a worker might be at risk in the event of the loss of a major client or supplier. It is the exercise of control by another entity over organization of the work, the price paid for the goods or services, or access to clients or raw materials, combined with economic dependence on that entity, that defines the status of being a dependent contractor. The resolution therefore notes that one or more of the following characteristics may be relevant for the identification of dependent contractors in statistical collections, depending on the national context:
 - a) their work is organized or supervised by another economic unit as a client, or as an entity that mediates access to clients;
 - b) the price paid for the goods produced or services provided is determined by the client or an intermediary;
 - c) access to raw materials, equipment or capital items is controlled by the client or an intermediary;
 - d) their actual working arrangements or conditions closely resemble those of employees;

- 13.** The challenge for survey statisticians is to determine whether it is necessary to obtain information about all of these characteristics or only about one or two of them in order to identify dependent contractors sufficiently reliably and comprehensively for the purposes of national statistics on dependent contractors.

²Incorporation reduces the degree of economic risk to which the worker is exposed. Some studies have shown that only a very small proportion of owner-operators of corporations are operationally dependent on a client. See, for example, Waite and Will 2001.

- 14.** It is also relevant that the concept of dependent contractors defined in ICSE-18 covers two distinct groups which may be identified if feasible and relevant in the national context:
- a) workers who provide their labour to others but have contractual arrangements corresponding to those of self-employment; and
 - c) workers who have committed significant financial or material assets to the unincorporated enterprise which they own and operate, but do not have full control or authority over their work or the activities of the enterprise.
- 15.** Ideally, the two groups should be separately identified rather than grouped together, but this is difficult to achieve operationally, since identification of the two subgroups of dependent contractors requires information on the nature of the financial or material resources committed by the worker. However, it is a reasonable assumption that a respondent who self-declares as an independent worker is more likely to have invested in material resources, while a dependent contractor who self-declares as an employee is more likely to provide labour mainly or only as input. The self-declared status may therefore be viewed as an indication of these two groups, but if statistics are published based only on the initial self-declaration, this should be made clear to users. Explanatory notes could explain why this represents only an approximation of the two groups.
- 16.** The types of job that should be included in each group are quite diverse in terms of the nature of the work performed and the nature of the worker's dependence on another economic unit. The first group comprises workers who provide their labour to others but do not make a significant commitment of financial or capital resources. Examples provided in papers prepared in advance of the 20th ICLS include:
- workers in disguised employment arrangements when an enterprise engages workers on a "self-employed" basis using a commercial contract primarily to avoid the limitations and responsibilities imposed on employers by national labour law;
 - hairdressers who "rent a chair" in a salon and whose access to clients is dependent on the salon owner;
 - vehicle drivers who have a service contract with a transport company which organizes their work, determines the fee, and provides the vehicle;
 - consultants working alongside and performing similar tasks and duties as employees in corporations or government agencies; and
 - waiters, supermarket baggers and others who are paid only by gratuities from customers.
- 17.** The second group of workers, those who have committed significant assets to the activity, may be exposed to considerable economic risk, especially if they have taken out loans to purchase equipment, machinery or vehicles. This group includes but is not restricted to:
- home-based workers or outworkers who are contracted to perform manufacturing tasks such as assembling garments;
 - vehicle drivers who have a service contract with a transport company which organizes their work, controls access to clients while the driver provides the vehicle;
 - direct sales consultants when the goods or services they sell and the prices they are sold for are set by the parent company, while the worker is nevertheless operating an individual business entity.

18. These examples are far from being an exhaustive list of the types of job that might be classified as dependent contractors. They may not even be the most common. For example, engagement of workers on the basis of a commercial rather than an employment contract is common when demand for workers with certain skills may vary at different times of year or at different stages in a project (for example in agriculture or construction). It is likely that a proportion of these workers will satisfy the criteria to be classified as dependent contractors.
19. It can be seen from the above that dependent contractors are quite a diverse group in terms of the occupations, skill levels and the industries in which they are employed. There are nevertheless some occupational groups or types of economic activity where it would be surprising to find large numbers of dependent contractors. For example, we would not expect to find large numbers of dependent contractors with jobs in ISCO Major Group 1, Managers. If this were the case, we would at least want to find a plausible explanation.
20. What dependent contractors have in common is that they do not control the economic unit for which the work is performed, while being exposed to economic risks associated with employment for profit. The different criteria used to define and measure them need to allow identification of those cases that correspond to the population of dependent contractors that is of policy interest, while avoiding the identification of workers that are genuinely employees, freelance contractors or independently running their own business. These criteria also need to take account of the diversity of the nature of their dependency. Different criteria may therefore be more or less relevant in different contexts.
21. When judging whether workers in particular occupational groups or industries should be identified as dependent contractors, the critical issue is whether it would inform policy debate to do so. In the following sections we discuss three groups for which self-employed contract work is common and the circumstances in which these workers might be considered to be dependent:
 - Farmers,
 - Internet-mediated platform workers,
 - Construction workers.

Farmers

22. Several tests have identified a relatively high share of dependent contractors in agriculture, including among farmers, especially when control over the price of goods and services by a client or intermediary was used as the operational measure. In some developed countries workers who own and operate their own farm were not expected to be dependent workers, casting doubt on the effectiveness of price control as an operational measure of dependent contractors. However, this was not identified as a major problem when significant numbers of farmers were identified as dependent contractors in developing countries.
23. The relatively high incidence of dependent contractors identified among farmers can possibly be explained by the prevalence and growth of contract farming. This has been defined as ‘a fixed-term arrangement between a farmer and a contractor, entered into before production begins, under which the farmer agrees to sell or deliver to the contractor a designated crop on identified acres in a specified manner, and the contractor agrees to pay the farmer a price according to a specified method and at an agreed time.’ (Bourque 2011). The term ‘contract farming’ may refer to marketing contracts, which are agreements between a contractor and a grower that sets a price or pricing system for a commodity, or to production contracts, which also specify detailed production practices (Rehber 2019).

24. Contract farming allows food production companies and large retailers to ensure consistent quality and adherence to food standards. It is also commonly understood to be a useful tool to mitigate prevalent market failures and to reduce the risks facing smallholder farmers, by providing a guaranteed market and price. It is therefore widely promoted by policy makers and development agencies.
25. However, in developed as well as developing countries contract farming may place operators of small farms in a situation of both economic and operational dependence on large corporations who control prices and material inputs and who specify production methods. These small farmers are in an economically and/or operationally dependent relationship with a single or main client or a single provider of the material input and are subject to a high level of operational and/or economic control over, for example, prices or production methods. There is evidence that contract farming does not always lead to an improved economic situation for farm households or for the communities in which they operate. (Meemken and Bellemare, 2020). 'The main problem is the weak position of the farmers in the contractual arrangements both in developed and developing world' (Rehber 2019).
26. In many European countries, primary agricultural production is undertaken in a large number of small farms, while the bulk of the processing and distribution of food products is concentrated in a much smaller number of large corporations, resulting in significant imbalances in market power (Bouamra-Mechemache et al. 2015). A similar pattern can be observed in North America and Australia, although large agricultural enterprises are perhaps more common in these regions. In many developing countries the imbalance in market power between producers and buyers may be even stronger.
27. In some cases, producers have grouped together into associations or cooperatives to negotiate collectively with buyers over price and other conditions of sale and production with some success (Rehber 2019). Producer members of cooperatives may nevertheless become dependent on large cooperatives that promote vertical integration of primary production, processing, distribution and retail and effectively function like a large corporation.
28. Researchers and specialists in the field have stressed the need for contract farming to be properly regulated by governments, for example by specifying obligatory contractual requirements, which could include clarifying the status of the farmer (independent contractor or employee), payment and contract termination conditions (Bourque 2011). Governments in some countries have introduced regulation along these lines. For example, in Thailand the "Contract Farming Promotion and Development Act" came into force in September 2018 and provides specific rules on the formulation of contracts as well dispute resolution and mediation mechanisms (FAO 2018). In 2009 the US Department of Agriculture introduced regulations intended to provide protections for contract poultry production (Rehber 2019).
29. It is clear from the above that many farm businesses are both economically and operationally dependent on large corporations who are their clients. What is less clear are the circumstances in which it will inform government policy to identify the operators of these farm businesses as dependent contractors. Statistics are needed to inform policy development on the need for regulation and to monitor the effectiveness of existing laws and policies and to identify the types of contract farming schemes that promote economic development and poverty reduction in rural areas (Meemken and Bellemare, 2020). While statistics on dependent contractors would not provide the detail needed to fully support policy formulation on contract farming, the presence of large numbers of dependent contractors among farmers would nevertheless suggest that there may be issues to address.

30. In some countries, however, dependent contractors might reflect only a small proportion of farm businesses that are dependent on other entities. Many farms would regularly engage employees, at least at certain times of the year, meaning that the operators of these farms would be classified as employers during the periods when they have employees. Farms may also engage contractors on a self-employed basis to perform certain tasks, such as harvesting or shearing sheep. In both cases this would suggest that the farmer has a degree of authority and independence, even if his or her business is heavily dependent on a client. Information about the number of employees or contractors engaged over a 12-month period could therefore help gain a better understanding of the situation of individual farmers identified in test or survey data as potential dependent contractors. Exclusion of farmers who have engaged more than a minimal number of employees or contractors in a year would ensure that only genuine smallholder farmers were identified.
31. Farm businesses may also take out multiple production contracts with different clients, especially if they produce different types of produce. Or they may decide to commit only a part of their output of a particular commodity to contract production. In these cases, combining price control with information about whether there is a single main client might identify the true population of dependent contractors in agriculture.

Internet mediated platform workers

32. 'Internet mediated platform work' refers to employment that is organized or mediated through an internet platform when the worker is not an employee of the enterprise that operates the platform. The related term 'gig-economy' is frequently used to refer to less structured work arrangements mediated through an internet platform³. Internet mediated platform work uses modern technology to speed up the process of matching short-term tasks with workers who are seeking short-term work. It also covers a wide range types of work that may or may not be of a short-term nature, including taxi and delivery services, clerical work, domestic cleaning services and many more. Some platform work, such as the provision of ride services (like Uber), involves the commitment of a significant material resource (a vehicle) as well as the labour of the driver. In other cases, provision of material resources may be relatively small or non-existent.
33. According to the conceptual framework for statistics on work relationships, internet mediated platform workers employed for profit should be classified as dependent contractors if the platform controls:
 - the price of the good or service provided,
 - organization of the work,OR
 - access to tasks or clients.
34. Workers such as those who advertise their products or services and/or have payments facilitated through internet platforms (for example Airbnb, E-bay) do not generally meet any of these criteria and would generally be classified as independent workers.. While payment is facilitated and controlled by the platform, the price of the good or service

³ The term 'gig-economy' can also apply to a broader group of workers who may be engaged on a daily or single short task basis, including day labourers who obtain work by waiting at a particular place where employers pick up people to help with short-term tasks, and freelance workers in entertainment who may be engaged for a single performance or 'gig'.

provided is not usually controlled by the platform. Even if the platform is the intermediary for all clients, and there is therefore an economically dependent relationship, the company operating the platform does not exercise sufficient economic or operational control for the worker to be considered as a dependent worker if it does not control how the work should be organized or set the price for the services provided or goods produce.

35. Information about who determines the price of the services provided through the platform is likely to identify most dependent contractors among internet-mediated platform workers. However, it may not necessarily identify them all if there are cases where the work is organized or access to clients is controlled through the platform, but the worker has some capacity to negotiate the price. Since platform workers tend to have multiple clients accessed through a single intermediary, information about having a single main client is unlikely to identify this group. Although platform work is a form of upstream dependency, experience with questions targeting upstream dependency suggests that a significant proportion of platform workers will be missed unless a separate question or response category is provided for platform work. (For more on this see the discussion in Section 3 below on measuring upstream dependency in France.)

Construction workers

36. Engagement of construction workers on a self-employed basis as contractors (or subcontractors) is common in many countries. This is in part because construction projects require a diverse range of tasks requiring different skills at different points in the construction process. The work is frequently carried out by a series of subcontractors under the supervision of the main contractor or builder (Waite & Will 2001). In some cases, individual contractors may provide only their labour and the tools traditionally used in their occupation. This situation may provide opportunities for false self-employment or disguised employment relationships, allowing employers and workers alike to avoid responsibilities for payment of taxation and social contributions (Seely 2019).
37. Information about the extent of material inputs made by the worker such as supply of materials and equipment may help to clarify the situation of a particular worker or group. However, this should not be an overriding consideration in determining their status in employment. There are many examples in the literature on dependent self-employed workers of dependent workers who make significant material inputs involving economic risk and potential for loss. These include, for example, vehicle drivers and outworkers in manufacturing.
38. Whether or not subcontractors in construction only provide labour inputs, or also provide materials, machinery and equipment, they may meet the criteria to be classified as dependent workers. The price paid for the work performed may be determined by the construction company or client, as individual subcontractors may be in a weak negotiating position. The working arrangements may be very similar to those of employees, especially for those providing their labour and basic tools only. Even when material inputs are provided by the contracted worker, the work tends to be organized and supervised by the main contractor or construction company.
39. However, since the services of certain specialized construction occupations are required only at certain stages of a construction project, some subcontractors may at any one time have contracts with multiple clients on different construction projects. For example, a building electrician might be engaged on a single contract to install cabling and other equipment before walls and floors are constructed and then several months later to install appliances, switching, power outlets and lighting. In the meantime, she or he may work on several other construction projects and/or perform electrical repair work for domestic clients. In these circumstances it may be difficult to construe that the electrician is a

dependent worker, even if the fee for the first contract was determined by the client. Nonetheless, if almost all of a sub-contractor's work is performed for or arranged through the same construction company and that company also dictates the fee to be paid, then it would be appropriate to classify the worker as a dependent contractor.

40. To make a definitive judgement on the worker's status in employment in cases like this it may be necessary to collect information about both price control and whether there is a main client, at least in the case of construction workers. A key issue for testing is whether it is necessary measure both of these conditions in order to definitively classify status in employment. If this were the case it would be necessary to establish:
 - Whether there is a relationship of dependency (in this case a main client); and
 - Whether there is an element of control in this relationship (e.g. over prices)

3. Approaches for the operational measurement of dependent contractors

41. As noted in the introduction, testing on the methods to determine whether those initially identified as self-employed are dependent on another economic unit that exercises control over their productive activities has focussed on three main approaches⁴:
 - control over setting the price for goods or services produced (price control);
 - exercise of operational authority by a main client or intermediary (the main client approach);
 - access to material inputs and equipment controlled by a client or intermediary (upstream dependency);
 - the two-step approach to establish firstly whether there is a dependent relationship, and secondly whether there is economic or operational control.
42. The ILO report to the 20th ICLS on testing proposals for the revised ICSE concluded that the price control approach seems to work well for capturing economic dependency provided that the question wording effectively excludes cases where the price is a market price or set by regulation or law. Further work since the ICLS tends to confirm this although some national statistical offices are concerned about its tendency to identify farmers. There is a need to further explore whether the aspect of organisational dependency, as a standalone dimension, identifies cases that should be defined as dependent contractors that are not identified with the price control approach. This requires more detailed investigation to assess how well the different methods of operationalization capture cases whose situation corresponds to the concept of dependent contractors as defined.

⁴ Tests based on sharing of profit with a client or intermediary have also been undertaken but showed that this was difficult to operationalize in a household survey. Respondents struggled to understand the concept of profit in this context and there were problems with establishing multi-party work relationships.

Price control

43. The price control approach identifies self-declared self-employed workers as dependent contractors if the price paid for the goods produced or services provided is determined by the client or an intermediary, rather than by the worker, by negotiation between both parties, or by regulation. The theory underpinning price control is that it implies an imbalance in negotiating and bargaining power between the worker and the client or intermediary, which also implies the ability to control other aspects of the worker's activities. A potential weakness, however, is that there may be situations where clients or intermediaries may exercise operational control, while prices are set by government regulation, collective agreements, or market rates. If there are indeed a significant number of cases of dependent relationships where control other than price is exercised, the challenge is to identify what types or levels of control other than price control would be of relevance and feasible to measure.
44. There may also be cases where the client or intermediary controls the price but exercises no control over material inputs or organization of the work, creating a somewhat ambiguous situation. This is less problematic, however, since the fact that they set the price is a strong indication that they exercise economic control.
45. The price control approach is reflected in the current version of the ILO model LFS questionnaire, in which the following questions are suggested:

Can (you/NAME) set the price of the products or services that (you/NAME) offer(s) (yourself/himself/herself)?

Why can (you/NAME) not set the price? Is it because?

READ

1. Another enterprise or agent sets the price
2. Prices are set by the customer(s)
3. Government defines the price by law/regulation
4. Prices are negotiated with the customer
5. It is the going rate on the market
6. Other (specify): _____

46. This approach was used to identify dependent contractors among the self-declared self-employed in the Italian Labour Force Survey in 2019. The result was that on average 452,000 people, representing 11.7% of the self-employed without employees, were identified as dependent contractors over the first three quarters of 2019. Compared to other self-employed workers there was a higher incidence of women, young people aged between 15 and 34 and graduates. Dependent contractors worked fewer hours and were more often affected by constraints in the choice of workplace than other self-employed workers without employees. Higher concentrations of dependent contractors were reported in wholesale, health and social work, financial and insurance activities, education, transport and storage. The most common occupations were commercial agents or representatives, insurance agents, home salesmen, financial management technicians, teachers of artistic or literary disciplines, trainers in non-competitive sports, nursing and midwifery occupations and rehabilitative health care, real estate agents, delivery personnel, drivers of heavy vehicles, taxi drivers or drivers of cars or vans, specialized guides, demonstrators and similar occupations, information officers in call centres. About half of the dependent

contractors identified in the Italian LFS worked for a single client compared to 15.3% of “genuine” self-employed without employees (Istat 2019).

47. These findings all suggest that the price control approach identifies the sorts of people and jobs that we would expect among dependent contractors. It has been proved to be efficient in identifying dependent contractors in multiple tests (Perez Klein 2019, Poonsab et al. 2019, ILO 2020). This provides a degree of validation of the price control approach, at least in Italy and other similar countries. However, there are still concerns that other forms of dependency, such as organizational dependency may not always be captured by a question on price setting and that price setting may also capture some false positives. There are some indications that additional forms of control could be of relevance to identify dependent contractors (Perez Klein 2020, Negrete 2020). One of the key issues that needs to be addressed is whether there are significant numbers of dependent self-employed workers who are not captured by a question on price control. In addition, findings also suggest that it might be important to first establish whether the worker have a dependent relationship to another actor and then, in a second step, identify whether that client, intermediary, supplier etc. controls the price setting.

The main client approach

48. The main client approach involves asking questions to determine whether a person who was initially identified as self-employed without employees has a single main client who exercises operational or organizational control over the work.
49. Identification of a single main client has most commonly been operationalized through questions on whether a single client accounted for at least 75% of a self-employed worker’s income. On its own this is not considered sufficient to identify dependent contractors separately from genuinely independent workers such as consultants and contractors who have a main client that does not exert any kind of control over the organization of their work. Finding a way of measuring control over work organization has been a major challenge, however.
50. In testing for the ad hoc module on self-employment (AHM 2017) of the European Labour Force Survey (EU LFS) ‘whether the client decides the hours of work’, was found to be the most feasible proxy measure of control over work organization. This combination of a single client that accounted for at least 75% of income and decides on the hours of work was adopted as a method to measure the ‘dependent self-employed’ in the 2017 EU LFS. The results are therefore reflected in the LFS in all Member States of the European Union, as well as other countries that participate in the EU LFS. However, for the EU as a whole, only 3.5% of the self-employed or 0.5% of total employment were identified as dependent self-employed using this method. The number of self-employed workers who reported that their clients decide their working time was 11.2%. The Eurostat assessment report on the ad hoc module cites this relatively low percentage as the main reason for the low number of dependent self-employed identified using this method. The percentage of self-employed with one (or one dominant) client was about 17% of all self-employed. (Eurostat 2018)
51. There are several reasons to suggest that the results of the 2017 ad hoc module significantly underestimate the extent of dependent self-employment in Europe. Some of the other variables included in the ad hoc module can provide insights into other aspects of organizational dependence. For example, about 12% of the ‘independent self-employed’ reported that they could influence neither the content nor the order of their tasks. 7.8% of all self-employed cited lack of influence on setting the price of their own work as the main difficulty experienced in their work as self-employed. 1.8% stated that the main reason they became self-employed was that their former employer asked them too. (ibid.)

- 52.** The main problem with the main client approach, however, is that it does not identify an important segment of the target population of dependent self-employed workers. Specifically, it excludes those whose work is organized by or whose access to clients or supply of material inputs is controlled by a third party or intermediary. Workers in the gig economy who are delivering goods or providing taxi services organized through an internet app, would be unlikely to consider the operator of the app as their clients. If combined with an effective method to measure control by the client over organization of the work, a question on having a single main client will therefore identify some but not all dependent contractors. Having a single main client could be viewed as an important component of the measurement of dependent contractors, but not sufficient in itself.

Upstream dependency

- 53.** Upstream dependency refers to situations where control over access to inputs such as raw materials, equipment or clients is exercised by a client, third-party intermediary or a supplier. This concept has been operationalized in various ways in testing and full surveys in different countries.
- 54.** In the French implementation of the 2017 EU LFS ad hoc module on self-employment, additional questions were included to assess upstream dependency. Self-declared self-employed workers were asked whether they got at least 75% of their revenue in the context of one of the following relationships:
1. Franchise
 2. Producers group, buying association
 3. Licensing
 4. Another relationship (concession, leasing, customer platform, etc.)
- 55.** If the answer to this question was ‘yes’ they were asked whether the relationship forced or constrained their choices regarding pricing, providers, products or services sold, whether it constrained their working time or hours, and whether the loss of this relationship would cause serious difficulties for their activity (citing an absence or drop of income for 6 months as an example of difficulties). Self-employed workers with a single main client were also asked whether the loss of that client would cause serious difficulties. This allowed the creation of an alternative measure of the economically dependent self-employed composed of all self-employed without employees who said they would be confronted with serious difficulties should they lose their relationship with either a client or upstream supplier.
- 56.** An important aspect of upstream dependency is also control by a third party or platform over access to clients. This was measured in the French implementation of AHM 2017 through a question on the main method to initiate contact with clients with one of the response options being “The client uses a platform or a third party that directs him or her to you”. About 200,000 self-employed (0.8% of all people in employment and 6.9% of all self-employed) were users, exclusively or not, of an intermediary to get access to clients. About half of these accessed clients only via an intermediary (Insee 2018a). Only 28% of this group said that they got at least 75% of their revenue through an upstream relationship while 36% said that one client represented more than 75% of their income. This suggests a certain amount of uncertainty in the minds of platform workers as to who is the client and who is the supplier, and that large numbers of platform workers would not be identified by either the questions on upstream dependency or having a single main client. (inferred from Insee 2018b Fig. 5)

57. Adding those who only use a platform or third party to access clients to those who would face serious difficulties in the event of loss of a main client or upstream supplier, resulted in a measure of dependent contractors that represented 1.3% of total employment (ibid. Fig 6)⁵. According to the analysis undertaken by Insee, this group ‘appears somewhat different’ from own-account workers in household market enterprises without employees. ‘They work less and would like to work more, have less autonomy, work several jobs more often, and are more likely to want to become an employee.’ (ibid.)
58. The approach used in the French version of the 2017 AHM does seem to provide a relatively robust and comprehensive measure of dependent contractors and allows analysis of multiple dimensions of dependence among those who identify as self-employed. However, it requires a large number of questions which could not easily be justified in a regular LFS. Moreover, if a worker would experience serious difficulty in the event of loss of a single client or supplier, this may or may not imply that the client or supplier exercises any kind of control over the worker’s activity. A question on price control was not asked of all self-employed workers in this survey, but 80 % of those with an upstream relationship representing 75% or more of revenue reported that the upstream relationship constrains the price. This would tend to suggest that a question on price control might identify a similar but not identical population. Fewer of the potential dependent contractors (14 – 22%) said that lack of influence over setting prices was their main difficulty, however.
59. In Uruguay and Chile the concept of upstream dependency was measured at least partially through a multi-option question which asked whether the self-declared independent worker, the client or the supplier controlled the:
- a) Working hours/work schedule
 - b) Place of work
 - c) Uniform
 - d) Type of products or services produced
 - e) Price of the products or services produced
60. This type of question combines elements of operational control, upstream dependency and price control. Based on the results of the field tests in Uruguay, self-declared ‘independent workers’ for whom the client or supplier controlled at least one of the five dimensions measured amounted to 10.1% of all employed workers (ILO 2018b). However, it is doubtful that variables such as control by a client or supplier over working hours or the place of work could be considered on their own to be reliable indicators of operational dependency. The nature of the work performed by workers such as construction contractors or ICT consultants may frequently require them to be present at their client’s workplace at times dictated by the needs of the client, while the workers may nevertheless be able to determine or negotiate their own fees, work for several clients during a given week and organize other aspects of their work. If a contractor has a single main client, the degree of dependency and control exercised by the client would perhaps depend on the duration of the contractual relationship, exclusivity clauses in the contract, or other aspects of control that are exercised.
61. In Chile, this question was considered to measure different aspects of subordination rather than dependency. Upstream dependency was investigated further through questions on

⁵ Here, dependent contractors are as follows: Self-employed without employees, not incorporated AND (Loss of the main client would cause serious difficulties OR Loss of upstream relationship would cause serious difficulties OR Platform or other intermediary only way to reach clients)

dependency and the production chain. A worker was considered to have a high degree of dependency when the means of production (such as premises, machines, tools, equipment, vehicles) was owned or leased by a client or supplier. On its own, this would capture workers who provide their labour to others but may have contractual arrangements corresponding to those of self-employment. It would not, however, capture those who have committed significant financial or material resources but are nevertheless dependent on another economic unit.

62. The ‘production chain’ refers to the linkage of two or more economic units through the provision of raw materials or sale of goods and services (access to customers). In the Chilean study it was measured through a series of questions which identified among others whether the worker:
 - produced goods or provided services to one single client only,
 - had one main supplier to provide raw materials or customers,
 - had an agreement or contract with a client or supplier that required exclusiveness.
63. The results of the test in Chile showed that it is much more common for self-employed workers to have a single supplier than a single client. Those with a single client had significantly higher levels of subordination based on the responses to the question that was considered to measure subordination. It was suggested therefore that chaining to a client should be considered better than chaining to a supplier to identify potential dependent contractors (Pérez Klein 2019). It seems likely that chaining to a supplier would identify significant numbers where the single supplier does not exert operational or organizational control over the worker. In other words, while there are many workers who have a single supplier, it is rare that this supplier exercises control. Workers who have a single supplier that does not exercise control would not be dependent contractors, and the existence of a single supplier should not by itself be used to identify dependent contractors.
64. In the Thailand Labour Force Survey 2017, questions to identify dependent contractors covered both upstream dependency and pricing, operationalized as follows:
 - Whether the worker receives raw materials or instructions provided by the customer, or another company, agent or contractor (indicating operational dependency);
 - Whether the pricing of his/her work is set by a third actor or customer(s) (indicating economic dependency).
65. The results showed that 17 percent of all self-declared self-employed without employees did not control the price setting of their products or services because the price is set by a third actor or client(s) and 10 pct. get their supplies or instructions from a third actor (company, agent or contractor) or customer(s). (ILO 2018b). The overlap between these two groups was relatively low, and the large number of workers who do not control their pricing but do provide their own material input were considered to be ambiguous. Virtually all of this group worked in agriculture (Poonsab et al 2019). The discussion in Section 2 above on contract farming and price control by food production companies explains why this is the case but does not completely dispel doubts about whether a question on price control alone is sufficient to identify dependent contractors among the self-declared self-employed in agriculture.
66. Further analysis and additional information may therefore be needed determine whether information on price control should be used in combination with information on upstream dependency or on something else. It may also be wise to investigate further the levels of

dependence among those who get their supplies or instructions from a third actor that does not control the price.

The two-step approach

67. The development of a “two-step approach” has arisen due to concerns that none of the single approaches discussed above will necessarily identify all situations in which workers who self-declare as self-employed are dependent on another economic unit that exercises control over their productive activities. The two-step approach aims to capture these two different aspects, by establishing first whether there is a dependent relationship, and second, whether a degree of control is exercised by the actor on whom the worker is dependent. If both conditions are met, this would be a strong indication that the worker should be defined as a dependent contractor.
68. The two-step approach has been implemented in Mexico in the National Survey of Occupation and Employment (ENOE) after intensive testing, as well as in the Chile Labour Force Survey. It was also included in the pilot studies conducted in Sri Lanka as part of the joint project between the national Department of Census and Statistics, the ILO and the World Bank (ILO, 2020).

Mexico

69. In the ENOE, the two-step approach aims first to identify market access dependency and then looks for signals of either economic or operational dependency. Market access dependency encompasses three alternative possibilities:
 - single client dependency;
 - clients provided by a third entity, such as when an app or platform owned by a third party provides clients;
 - single trademark dependency, where clients are accessed in the name of a third entity, such as insurance brokers, some franchise operators and workers whose clients are provided by a guild. (Negrete, 2020)
70. For those identified as dependent on another company for access to the market, economic and/or operational dependency is confirmed by asking questions that identify different aspects of control, including:
 - whether the company exercises economic control by setting the price of the product or service, minimum sales or operations, the place routes or areas of operation, or suppliers to work with; and
 - whether the company or intermediary exercises operational control by providing inputs such as an online application, materials, equipment, premises and so forth. (Negrete, 2020)
71. The Mexican ENOE 19/20 estimated a total of 6.4 million dependent contractors, representing 11.0 percent of main and secondary jobs. 77.2 percent of these were providers of labour to others, while the remaining 22.2 percent were conducting unincorporated enterprises and identified using the two-track approach. Almost a quarter of these may not have been identified based on price setting alone (own calculations based on Negrete 2020, Table 2, P9).

Sri Lanka

72. In the pilot studies conducted in Sri Lanka, dependent relationships were established by identifying first whether self-declared self-employed workers had a main client or intermediary or a single supplier. Two questions were then asked of those identified using this question to establish whether economic or organizational control were exercised within the dependent relationship.
73. Organizational forms of control included:
- the minimum amount of sales or tasks that the worker must complete;
 - the places, routes or areas where the worker works;
 - the tasks performed by the worker, or the organization of tasks;
 - the supplier that the worker uses.
74. Economic forms of control included:
- the price of the products or services produced;
 - the provision of the materials or supplies used for production;
 - the provision of machinery, equipment or tools;
 - the provision of office, premises or facilities;
 - the provision of the vehicle used for carrying out the activities;
 - the provision of an app or other online tools to support the work.
75. This effectively required the addition of one question for all self-declared self-employed workers, and two additional questions for those identified as economically dependent workers. Among the 476 self-declared self-employed who did not have any employees or an incorporated enterprise, 146 workers (24 per cent of all self-declared self-employed workers) had at least one dependent relationship. 129 workers had a dependent relationship to a main client only, eight to a main client and to a single supplier, four to an intermediary who provided most or all of the clients and five to a single supplier only. 102 of the 146 workers with a dependent relationship reported that they had experienced the exercise of some form of control. (ILO, 2020)
76. Having a main client who controls the price was by far the main form of dependency in this study and results in 14% of all self-declared self-employed workers being classified as dependent contractors. If the different dependent relationships are expanded to include intermediaries and single suppliers who control the price, the share increases to 16 per cent, and to 17 per cent if other forms of control are added to the different dependent relationships, or three percentage points higher than if only the main client approach is used in combination with price control. This no doubt reflects the rural context in which the study was conducted. Almost 70% of the target group were employed in agriculture and almost 60 % were skilled agricultural workers, and some 16% in elementary occupations (probably agricultural labourers). (ILO 2020) The impact of contract farming on the capacity of farmers to set the price of their products may be an important factor here. However, 20% were Craft and related trades workers, possibly suggesting that dependent contractors are prevalent among construction workers.

Chile

77. In the case of Chile, a slightly different two-step approach has been taken. Economic dependency among self-declared independent workers is established by identifying whether important elements of the means of production used by the worker – in particular (a) stores, installation, or land, and (b) machinery – are owned by a third party. Operational dependency is established if a third party controls (a) the place, route or area of the activity, or (b) the price of the product to service. Using this approach some 29% of self-declared independent workers can be characterized as dependent contractors. (Niculcar, 2020). It appears that a significant proportion of dependent contractors would be missed if measurement were based on price control alone.

4. Variables and questions to confirm identification of dependent contractors

78. Based on the information currently available and the discussion in the previous sections, we cannot be certain that any one of the single approaches to the identification of dependent contractors can provide a comprehensive measure in its own right.

79. The price control approach appears to provide the most comprehensive and efficient measure and requires only one or two questions. It may not identify some cases where an intermediary or supplier exercises operational control and benefits from the work, without exercising complete control over the final price. We do not at this stage have evidence that this is a significant group, but there are concerns that this may be the case.

80. There are also concerns that there are cases where the client dictates the price but does not exercise any kind of control over the organization of the work, especially in agriculture. This can be seen as an ambiguous situation and has raised doubts about whether price control is a suitable operational method to identify dependent contractors among farmers. Should all self-declared self-employed workers without employees be classified as dependent contractors if the price of their products is determined by their clients, even if the client exercises no operational control? This is an important question as inclusion or exclusion of this group could impact significantly on the total number of dependent contractors, especially in developing countries where large numbers of smallholders are engaged in contract farming.

81. The main client approach identifies a significant proportion of dependent contractors but will not identify all unless it is complemented by questions on upstream relationships and control over access to clients through intermediaries and platforms. Measures of upstream dependence can also provide a useful and comprehensive measure, especially if combined with a measure of downstream dependence using the main client approach. However, measures of dependence on clients or suppliers need to include a reliable and feasible measure of the exercise of operational control by a main client, which may prove to be very difficult. Information on whether a contractor would have serious difficulties in the event of the loss of a main client or supplier (as used in the French study) yielded interesting results, but does not necessarily indicate that the client or supplier exercises any kind of operational control.

82. The key issue in the two-step approach is whether the addition of different forms of control does indeed capture cases that should be included in the category of dependent contractors that are not captured using, for example, price control alone. Moreover, the gain obtained by doing so needs to be balanced against the increased respondent burden. The main advantage with the two-step approach is that it makes it possible to test the identification of different types of dependent relationships and relate them to different types of control.

- 83.** In the remainder of this final section we discuss the types of information that could be used to determine whether or not a worker or group, identified using any one of these methods, fits the profile of dependent contractors. The relevant information could be obtained by adding questions to field tests or from follow up studies using qualitative research methods. In some cases the relevant information may already be available in regularly collected survey data. The aims would be:
- to assess how comprehensively and accurately the different approaches capture the desired population, and
 - to identify what, if any, additional information might need to be collected in surveys to refine the measurement, especially in combination with price control.

Engagement of employees and contractors

- 84.** Workers who regularly engage employees are classified as employers in ICSE-18 and are therefore excluded from being dependent contractors. However, workers who occasionally engage employees, but do not do so on a regular basis, may nevertheless be classified as dependent contractors.⁶ This also applies to workers who engage others on a self-employed basis.
- 85.** Engagement of contractors or employees on an occasional basis would imply that a self-employed worker is able to exercise a degree of control and authority over the business, even if the business is entirely dependent on a client or intermediary. During development of ICSE-18, authority to engage employees was considered as a possible method to exclude self-employed workers from being counted as dependent contractors. However, such a method would be difficult to implement in the field and would not be entirely consistent with the definition of dependent contractors as finally adopted by the ICLS.
- 86.** Information on the number of employees or contractors actually engaged, for example over the last 12 months, could nevertheless be used to assess the extent to which any of the proposed approaches to identifying dependent contractors was capturing “irregular employers”. That is workers who frequently engage employees or contractors but did not have any employees during the three weeks immediately preceding the reference period. If large numbers of such “irregular employers” were identified, a question could be included in surveys to allow the exclusion of those who frequently engage contractors on an occasional or seasonal basis. Those exceeding the threshold would be classified in ICSE-18 as Independent workers without employees. This would limit the identified dependent contractors to genuinely small-scale business operators. Information about irregular and occasional engagement of workers might in any case be useful, especially for the study of seasonal work in agriculture.
- 87.** A related approach would be to ask workers potentially identified as dependent contractors whether they had plans to hire employees or engage contractors, or whether their contract with a supplier or client excluded them from doing so. This may not be suitable as an exclusion criterion but would potentially raise doubts about a measurement approach if large numbers of dependent contractors were found to have plans to engage staff.

⁶ The definition of employers in ICSE-18 notes that if there is a need to test for regularity, this should be interpreted as having at least one employee during the reference period and at least two of the three weeks immediately preceding the reference period.

Clients and customers

88. Especially when the price control approach is used, it would be useful to have information about the nature and the number of clients and customers and the nature of the relationships between the contractor and the client. Unless there is an intermediary that controls access to clients, the existence of multiple clients would suggest that a worker might not be dependent on a single client. This would effectively use the main client approach as a confirmation mechanism for the initial identification of dependent contractors through price control. Those who respond to the ILO model LFS question on price control that it is the customer(s) who set(s) the price could be asked how many customers or clients they currently have, or how many they have had in the last 12 months. Information about the proportion of the products sold or contracted to be sold to a main client could also be used to gauge the level of control that a client who dictates the price is able to exert.
89. If testing showed that there were large numbers of workers for whom the price is determined by customers but with no dominant customer, questions on the number and dominance of clients could be added to surveys. This would allow exclusion of workers such as farmers and construction workers identified through price control if they do not have a dominant client (or intermediary). Although this would increase respondent burden and the length of the questionnaire, it would only need to be asked of those who said that their customers set the price.

Suppliers and intermediaries

90. To assess the extent to which those not identified by price control may be dependent on an upstream supplier of materials or clients, it would be useful to include measures of upstream dependency in the same test or survey as questions on price control. An adaptation of the approach used in Thailand, which asked whether the worker receives raw materials or instructions provided by the customer, or another company, agent or contractor could potentially be used for this purpose. However, this would ideally need to be complemented by information about the number and dominance of suppliers as well as the extent to which they exercise operational control. The number of questions needed would perhaps be prohibitive in a regular survey but could be contemplated in a large test or special purpose survey. If it turned out that significant numbers of additional dependent contractors were identified, then it might be possible to devise a single question that would complement measures based on price control.

Contract terms

91. Information about the nature of a contractor's contract with the client or supplier can also shed light on the extent of dependence. For example, if the contract prevents a worker from working with another client, or from purchasing from other suppliers, this would be a strong indication that the worker is dependent on the client or supplier and that control can be exercised over their activities.

Occupation, branch of economic activity, hours worked, earnings, demographics

92. In several cases, analysis of characteristics of those identified as dependent contractors (such as occupation, industry, working time, income and earnings, age and sex) have been used to confirm or cast doubt on the validity of the method used to identify them. This type of analysis also provides useful information about the group, which after all is one of the main purposes of identifying it. For example, the fact that those identified as dependent

self-employed in France based on whether the loss of a main client or supplier would result in serious problems, worked shorter hours, earned less and were younger than other self-employed workers can be seen as confirming our pre-conceptions and expectations about dependent contractors. Similarly, the identification of occupational groups that were not expected, such as farmers, resulted in questioning the validity of certain methods.

93. This type of analysis should be used with caution for validation of measurement methods, however. Simply because some results are counter-intuitive, it does not necessarily follow that they are wrong. Certainly, we might expect that dependent contractors would, for example, earn less on average than own-account workers without employees in similar occupations. However, own-account workers in household market enterprises are a very vulnerable group associated with a high degree of uncertainty, informality and economic exposure. Comparing the two groups looking at earnings alone might therefore be problematical. The key issue with dependent contractors is that they have the **same or similar** economic risk as other own-account workers but a smaller degree of authority.
94. If we find counter-intuitive results we should at least investigate further to understand the reason for this, as we have done in this paper in the case of farmers. It could be that the results are counter-intuitive because of problems with the measurement method. On the other hand, it may be that dependent self-employment can result in positive outcomes for some workers, despite the loss of independence or relative security of being an employee. Contract farming, for example, is widely promoted because it is seen as a method of guaranteeing a market for a particular product and supporting smallholders to become more efficient, while there is concern that it may be used exploitatively by some corporations or that it may place the smallholder in a dependent position. The statistics we produce about dependent contractors should inform policymakers, researchers and the general public about what might be the positive and negative effects of the growth of this type of work relationship, so that measures can be put in place to mitigate the negative effects and encourage any positive ones.

Conclusions

95. A question on whether the price paid for the goods produced and services provided is determined by the client or an intermediary will allow the identification of a large number of dependent contractors among workers initially declared as operating their own business (i.e. as self-employed). However, there may be cases where:
 - (a) the client dictates the price but does not exercise control over the organization of the work, raising concerns about false positives based on price control.
 - (b) upstream suppliers, intermediaries or even clients may exercise varying degrees of operational control, without controlling the price, raising concerns that a measure based on price control alone may not be sufficiently comprehensive and result in false negatives.
96. To address some of the concerns about false positives, those identified based on price control could be asked questions on the numbers of employees or contractors engaged during the previous twelve months, and on whether there is a single main client. If the numbers who engaged employees or consultants over the previous twelve months is significant, they could potentially all be excluded from dependent contractors or a threshold could be established for the number of employees/contractors engaged in a given period. Information on the number of clients and whether there is a single main client or intermediary would allow those who are not dependent on a single main client or intermediary to be excluded, even if their multiple clients set the price. Both measures could reduce the number of false positives among those such as farmers and construction

workers. This would mitigate to some extent the concerns about ambiguous cases where the client controls the price but not the material inputs.

97. To assess the extent to which a measure based on price control alone misses some workers, it is necessary to determine whether there is a single main client, intermediary or supplier that exercises control over organization of the work but not the price. This requires the inclusion of questions on price control, main client and upstream dependency in a single large test or special survey. For those who have a single main client, supplier or intermediary who does not control the price, we need to determine whether this entity controls the organization of the work.
98. Measuring control over organization of the work may require detailed follow-up using qualitative research methods to obtain detailed information about the nature of the contractual obligations of both parties, the extent and nature of control exercised. However, experience so far suggests that it will be difficult to develop a question on operational control that could reliably be used in a survey, casting doubts on whether such an exercise would be worth it. It would nevertheless allow us to assess the extent to which price control can provide a comprehensive measure of dependent contractors.
99. As a way forward for countries wishing to conduct further testing on the measurement of dependent contractors, it is suggested that information should be collected from self-declared self-employed in the same test or survey on:
 - Who determines the price paid for the goods or services produced;
 - The number of employees or contractors engaged over the previous 12 months;
 - The number of clients;
 - Whether there is a single main client;
 - The number of suppliers or intermediaries;
 - Whether there is a single main supplier or intermediary;
 - Whether the loss of a single main client, supplier or intermediary would result in serious difficulty
100. Tests should, of course, also include standard socio-demographic and labour force items such as occupation, industry, age, sex, earnings and hours worked to facilitate analysis and validation of the results. If counter-intuitive or unexpected results are identified, investigations should be undertaken to determine whether there is a plausible explanation or a problem with the measurement.
101. Additional items related to various aspects of organizational dependency such as those included in the tests and surveys discussed in this report could also be included in future tests. To keep the number of questions in tests or surveys to the essential minimum, however, questions on these topics might also be reserved for follow-up interviews targeting specific groups identified as potentially problematic.
102. If testing shows that there are significant numbers identified based on price control who do not have a single main client or intermediary, this may indicate the need to include questions on main client in future surveys. For those who engaged employees or contractors over the previous 12 months, analysis of the characteristics of this group compared to other dependent contractors, own-account workers without employees and employers could help

determine whether there is a need to set a threshold to exclude such workers from dependent contractors and what the threshold should be.

- 103.** For those who have a single main client, supplier or intermediary who does not control the price, further analysis of other variables related to operational dependency should be undertaken, as well as follow up qualitative research, especially if the loss of the single main client, supplier or intermediary would result in serious difficulty. Analysis of other labour force and demographic characteristics could help determine whether this group is similar to dependent contractors or to some other group, but it would be difficult to justify including them among dependent contractors in the absence of a reliable and feasible method of determining whether operational control is exercised over the worker.
- 104.** In summary, there is significant cause for optimism that price control will form a good basis for measurement of dependent contractors among those who self-identify as self-employed. Testing is needed to determine whether, in some circumstances, surveys should include additional questions on workers engaged over the last 12 months, and/or on the existence of a main client, supplier or intermediary to ensure that the number of dependent contractors is not overestimated, if it is based on price control alone. Any such questions would need only to be asked of those who indicate that the price paid for their work is controlled by a client, supplier or intermediary. Test results from Mexico, Chile and to a smaller extent, Sri Lanka suggest that measurement based on price control alone may miss a significant proportion of dependent contractors, perhaps as many as 25 percent, depending on the country. The extent to which price control misses some dependent contractors should be assessed further by investigation of the exercise of organizational control over work by clients, suppliers or intermediaries who do not control the price.
- 105.** The sequence of questions presented in the Annex are a result of the work carried out so far. This can be viewed as a starting point for a further assessment of which dependent relationships and which elements of control need to be established in order to obtain a comprehensive measurement. This can then be weighed against the increased response burden of including additional questions, in order to find the right balance between the two.

References

- Bouamra-Mechemache, Z. ; Duvaleix-Tréguer, S & Ridier, A. 2015. *Contrats et modes de coordination en agriculture*, *Économie rurale* [En ligne], 345 | Janvier-février 2015, <http://journals.openedition.org/economierurale/4545> . (Paris)
- Bourque, Jean-François. 2011. *Contract Farming: Opportunities and risks*. International Trade Forum, 2011 Issue#3. International Trade Centre (Geneva)
- Chambati, F., Mazwi, F., Mberi, S. 2019. *Contract Farming and Peasant Livelihoods: The case of Sugar Outgrower Schemes in Manhiça District, Mozambique*. Sam Moyo African Institute for Agrarian Studies, Working Paper 01SM/2019
- Cordes, T. & Thorsen, T. 2019. *Testing Dependent Contractors in the Danish Labour Force Survey*. Statistics Denmark paper for the 62nd ISI World Statistics Congress, 18-23 August 2019, Kuala Lumpur.
- European Foundation for the Improvement of Living and Working Conditions (Eurofound). 2013. *Self-employed or not self-employed? Working conditions of “economically dependent workers”*, background paper (Dublin).
- . 2017. *Exploring self-employment in the European Union* Publications Office of the European Union (Luxembourg).
- Eurostat. 2017. *Model questionnaire to be used for implementation of the LFS ad hoc module 2017 on self-employment*. Publications Office of the European Union, (Luxembourg).
- . 2018. *Evaluation of the 2017 EU Labour Force Survey ad hoc module on Self-Employment* (Luxembourg)
- Food and Agriculture Organization of the United Nations. 2018. *New contract farming law released in Thailand*. Contract Farming Resource Centre. <http://www.fao.org/in-action/contract-farming/news-cf/news-detail/en/c/1145200/>.
- Insee. 2018a. *Emploi, chômage et revenus du travail, Edition 2018*. (Montrouge)
- . 2018b. *French AHM 2017: a first experiment to identify dependent self-employed*. Unpublished report provided to the ILO. (Montrouge)
- . 2019. *Can price constraint variables help identify dependent self-employed?* Unpublished report provided to the ILO. (Montrouge)
- International Labour Office (ILO). 1993. *International Classification of Status in Employment (ICSE-93)* (Geneva).
- . 2003. *The scope of the employment relationship*, Report V, International Labour Conference, 91st Session, Geneva.
- . 2013. *Revision of the International Classification of Status in Employment (ICSE-93)*, room document 8, 19th International Conference of Labour Statisticians, Geneva, 2–11 October 2013.
- . 2015a. *Issues to be addressed in the revision of the International Classification of Status in Employment (ICSE-93) – Discussion paper*, Working Group on the Revision of the International Classification of Status in Employment (ICSE-93), Geneva, 6–8 May 2015.

- . 2015b. *Non-standard forms of employment*, Report for discussion at the Meeting of Experts on Non-Standard Forms of Employment, 16–19 February 2015, Geneva.
 - . 2018a. *Data collection guidelines for ICSE-I8*, room document 4, 20th International Conference of Labour Statisticians, Geneva, 10–19 October 2018.
 - . 2018b. *Testing of proposals for a revised International Classification of Status in Employment*, room document 10, 20th International Conference of Labour Statisticians, Geneva, 10–19 October 2018.
 - . 2018c. *Resolution concerning statistics on work relationships*. 20th International Conference of Labour Statisticians, Geneva, 10–19 October 2018.
 - . 2019. *ILO Model LFS for CAPI, Labour modules Approach 1 (version 3)*. ILO Labour Force Survey (LFS) Resources. (<https://ilostat.ilo.org/resources/lfs-resources/>)
 - . 2020. *Conceptual framework for statistics on work relationships*. (Geneva)
 - . 2020. *Informality and the measurement of dependent contractors*. Discussion paper presented at the 2nd Working Group meeting for the Revision of the Standards for Statistics on Informality. Second meeting, Geneva, 6–15 October 2020. ([e-forum for the revision of informality](#)).
- Meemken, E-M & Bellemare, M.F. 2020 *Smallholder farmers and contract farming in developing countries*. Cornell University (Ithaca)
- National Family Farm Coalition. 2020. *Ending corporate control*. (Washington) Extracted on 31 March 2020 (<https://nffc.net/what-we-do/ending-corporate-control/>)
- Negrete R. 2020. *Testing the concepts of dependent contractors and informality in Mexico*. Instituto Nacional de Estadística y Geografía. Discussion paper presented at the 2nd Working Group meeting for the Revision of the Standards for Statistics on Informality. Second meeting, Geneva, 6–15 October 2020. (e-forum for the revision of informality)
- Niculcar, D. 2020. *The experiences of INE Chile in the implementation of the recommendations of the 20th International Conference of Labour Statisticians (2018) of the ILO*. Department of Labour Statistics – Technical subdirectorate National Statistics Institute. Discussion paper presented at the 2nd Working Group meeting for the Revision of the Standards for Statistics on Informality. Second meeting, Geneva, 6–15 October 2020. (e-forum for the revision of informality)
- Perez Klein, Daniel. 2019 *Debates and issues to identify dependent contractors in labor force surveys*. Paper prepared for the 62nd ISI World Statistics Congress 2019
- Poonsab, W. Carré, F, Vanek, J. 2019. *Testing of dependent contractor sub-category in the Thailand Labor Force Survey 2017*. in *Proceeding of the 62nd ISI World Statistics Congress: Invited Paper Session – Vol. 2. 451–456*. Department of Statistics Malaysia. (Kuala Lumpur)
- Rural Advancement Foundation International- USA. 2020. *Understanding Contract Agriculture*. Extracted on 31 March 2020 (<https://www.rafiusa.org/programs/contract-agriculture-reform/understanding-contract-agriculture/>)
- Rehber, Erkan. 2019. *Contract Farming in Practice: An Overview*. Zwick Center for Food and Resource Policy, Research Report No.7, University of Connecticut (Storrs).

- Seely, Antony. 2019. *Self-employment in the construction industry*. House of Commons Library, Briefing Paper Number 196, 23 August 2019 (London).
- Sriboonchitta, S and Wiboonpoongse, A. 2008. *Overview of Contract Farming in Thailand: Lessons learned*. ADBI Discussion Paper 112. Tokyo: Asian Development Bank Institute. Available: <http://www.adbi.org/discussion-paper/>
- Waite, M.; Will, L. 2001. *Self-employed Contractors in Australia: Incidence and Characteristics*, Productivity Commission Staff Research Paper, AusInfo (Canberra).

Annex

Proposed questions for assessing the identification of dependent contractors among self-declared self-employed without employees who do not own and operate an incorporated enterprise.

Main client

Filter: all in target group C

<p>MJI_MAINCLIENT</p> <p>In the last 12 months, did at least 75% of (your/his/her) income in the business come from one client?</p> <p>1. YES</p> <p>2. NO</p>

Mediation of clients

Filter: If not main client (i.e. If MAINCLIENT=2)

<p>MJI_MIFOCLIENT</p> <p>Do you get your customers, clients or buyers through someone else, for example from another company, intermediary or person?</p> <p>READ</p> <p>1. Yes all of them (Go to 4)</p> <p>2. Yes most of them (Go to 4)</p> <p>3. Yes, but only some of them (Go to 3)</p> <p>4. No (Go to 3)</p>

Upstream dependency

Filter: If no main client or no intermediary (i.e. MAINCLIENT=2 and MJI_MIFOCLIENT=3,4)

<p>MJI_JOB_DO</p> <p>In this job, do you</p> <p>READ</p> <p>1. Sell products or services from only one company?</p> <p>2. Make products or provide services for only one company?</p> <p>3. Work with materials or equipment provided by just one company?</p> <p>READ</p> <p>4. NONE OF THE ABOVE</p>

Forms of control

Filter: To all respondents in the target group C that either have a main client, intermediary, single supplier or is a franchise.

ASK IF MJI_MAINCLIENT = 1 or MJI_MIFOCLIENT = 1,2 or MJI_JOB_DO = 1,2,3)

MJI_INTERM_DO

ASK IF MJI_MAINCLIENT = 1

α Does this client set?

ASK IF MJI_MIFOCIENT = 1,2

β Does this company, intermediary or person set?

ASK IF MJI_JOB_DO = 1,2,3

γ Does this company set ...?

READ AND MARK ALL THAT APPLY

1. The price of the products or services that you offer?
2. The minimum amount of sales or tasks you must complete?
3. The places, routes or areas where you do your work?
4. The tasks you do or how you organise them?
5. The supplier(s) to use?
6. NONE OF THE ABOVE

Respondents in target group C that answers (MJI_MAINCLIENT=1 or MJI_MIFOCIENT=1,2 or MJI_JOB_DO=1-3) and (MJI_INTERM_DO=1-5) are defined as

- *Dependent contractors (2nd track).*

The remaining respondents in group C are defined as:

Aggregated ICSE-18 category:

- *Independent workers without employees*

Detailed ICSE-18 category:

Own-account workers in household market enterprises without employees