

# OECD Assessment of the Statistical System of Argentina and Key Statistics of Argentina



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## **OECD ASSESSMENT OF THE STATISTICAL SYSTEM OF ARGENTINA AND KEY STATISTICS OF ARGENTINA**

### **INTRODUCTION: THE ORIGIN, PREPARATION AND CONDUCT OF THIS REVIEW**

1. The OECD Secretariat and Argentina held informal talks in early 2016 concerning Argentina's membership in the G20 and interest in the Organisation. In April of that year, the OECD's Committee on Statistics and Statistical Policy (CSSP) agreed to add Argentina to its Participation Plan as an Invitee, both for the Committee itself and its working parties.

2. Shortly afterwards, on 30 June 2016, Argentina's then Minister of Treasury and Public Finance, Alfonso Prat-Gay, wrote to the OECD Secretary General expressing his country's willingness to adhere to the Recommendation of the Council on Good Statistical Practice (herein, CRGSP, C(2015)128) adopted in November 2015. In response, the CSSP agreed, via written procedure on 30 July 2016, on the following process:

- i. Conduct a preliminary review to allow the CSSP to form a judgement whether Argentina is fully committed to putting in place a sound statistical system, in line with the Council Recommendation.
- ii. Conditional on the CSSP expressing a positive opinion on Argentina's adherence to the Council Recommendation on the basis of the preliminary review, consider a full review of Argentina's statistical system, in line with the well-established model used in the context of accession to the OECD. Such a full review would enable the CSSP to monitor progress towards the implementation of the Council Recommendation with respect to the statistical law and across the full range of OECD statistical domains.

3. Pursuant to 2.i above, the OECD Secretariat carried out a preliminary review between late 2016 and March 2017. The full text of its assessment is available as document STD/CSSP(2017)7/ANN1. It provided an initial evaluation of the prevailing institutional arrangements and of the quality and international comparability of Argentinean statistics in a limited number of statistical subject domains, assessing their degree of conformity with OECD standards in terms of coverage, compliance, timeliness, availability and metadata. Specifically, it addressed Argentina's

- i. Legal and institutional framework for official statistics (LIF)
- ii. National accounts (including public sector debt)
- iii. Consumer price indices
- iv. International Trade in Goods

4. Based on the preliminary review, the CSSP at its meeting in June 2017 expressed a positive opinion as to Argentina's adherence to the OECD Council Recommendation, and recommended proceeding with the full review foreshadowed in 2.ii above. The Chair of the CSSP, Mr Konrad Pesendorfer, conveyed this advice to the Director-General of Argentina's National Institute of Statistics and Census (*Instituto Nacional de Estadística y Censos* – INDEC), Jorge Todesca, on 5 July 2017. After approval of the adherence by the OECD's External Relations Committee, the OECD Secretary-General wrote to the new Minister of Treasury and Public Finance, Nicolás Dujovne, on 10 August 2017 declaring Argentina to be an Adherent and adding that "We look forward to supporting further your government in progressing towards a high-quality, institutionally solid and independent statistical system."

5. Over the following months, the OECD Secretariat worked to design a detailed programme for the full review recommended by the CSSP, and a draft was presented to Mr Todesca in November 2017. After some further discussions, the programme for the review was agreed in January 2018. It provides for an assessment of three central aspects of the Argentinian statistical system and statistics, namely:

- i. The legal and institutional framework for official statistics
- ii. The statistical infrastructure, including Population and Housing Census, Agricultural Census, Economic Census, Business Register, Labour Force Surveys and Household Surveys, Enterprise surveys, International standards and classifications; and
- iii. The quality and comparability of data in the following OECD core subject matter domains:
  1. National Accounts
  2. Population Statistics
  3. Business Statistics
  4. Financial Statistics
  5. International Trade in Goods and Services
  6. Price Statistics and Purchasing Power Parities
  7. Balance of Payments
  8. Short-term Labour and Labour Compensation Statistics
  9. Indexes of Production and Demand
  10. Short-term Financial Statistics
  11. Business Tendency and Consumer Opinion Surveys
  12. Statistics on well-being and measuring progress.

6. The agreement on the review allowed that the final coverage of component (iii) might differ from the items listed above once the data domains and the producers of official statistics in Argentina were identified.

7. Arrangements for the review were further discussed in the margins of a visit to Buenos Aires in January 2018 by the Director of the OECD Statistics and Data Directorate (SDD), Martine Durand, in which she participated in the 50<sup>th</sup> anniversary celebrations of the foundation of INDEC. An OECD Study Team was then formed under the guidance of SDD Deputy Director Paul Schreyer. It consisted of five SDD staff, viz. Simon Scott, Counsellor; Nadim Ahmad, Head, Trade and Competitiveness Statistics Division; Marco Mira d'Ercole, Head, Household Statistics and Progress Measurement Division; Jorrit Zwijnenburg, Head of Section, National Accounts Division; and Julien Dupont, Analyst/Statistician, Global Relations. INDEC nominated Mr Pedro Lines, then its National Director for International Accounts and later its Technical Director, to co-ordinate the review for Argentina.

8. The Study Team developed questionnaires covering all aspects of the review and sent these to INDEC in February for completion and return by 30 June 2018. In the meantime, Study Team undertook a mission to Buenos Aires from 16 to 20 April 2018. This provided the opportunity for staff from INDEC and other entities of Argentina's national statistical system to make presentations and exchange information with the Team before responding to the questionnaires.

9. This report is based mainly on questionnaire responses provided in July 2018, subsequent discussions and clarifications thereof, draft chapters submitted to INDEC for comment in February 2019,

and a further mission by Messrs Scott and Dupont in May 2019. It has been checked for accuracy by the Argentinian authorities but the judgements expressed are solely the responsibility of the Study Team. The Team would like to thank Mr Todesca, Mr Lines, and all the staff of INDEC and the other entities of Argentina's National Statistical System (NSS) for their strong engagement and willing help in the preparation of this report, and for their warm hospitality during the study missions.

10. **This report is based on the information available at the time it was completed on July, 1<sup>st</sup>, 2019.**

## CHAPTER 1: THE LEGAL AND INSTITUTIONAL FRAMEWORK FOR ARGENTINA'S STATISTICS

### 1.1 Introduction

11. The preliminary review of the legal and institutional framework conducted in later 2016 and early 2017 concluded that the level of compliance with the CRGSP throughout the Argentinian Statistical System was improving and that INDEC had demonstrated the willingness and the capacity to further enhance the implementation of the Recommendation in the near future. The review emphasised, however, that Argentina's recent experience had demonstrated the fundamental importance of strengthening its institutional environment and the statistical infrastructure.

12. This section updates the findings of the preliminary review, taking account of developments in the intervening two years. It is organised according to the twelve sub-recommendations of the CRGSP, and describes the legal and institutional position as observed up to June 2019.

13. This legal position, however, may be about to change. In May 2019, the OECD was informed that a draft new statistical law, to replace Law no. 17622 of 1968, had reached the stage of inter-ministerial agreement, and was being prepared by the Cabinet office for presentation to parliament. The OECD was provided with a copy of this draft and invited to comment on the degree to which it might be considered to meet the requirements of the CRGSP to which Argentina is a recognised Adherent.

14. The draft new law presented is organised as follows. Title I sets out general principles, based on the UN Fundamental Principles of Official Statistics, and defines the National Statistical System. Title II deals with INDEC: Chapter I defines its legal status and powers, Chapter II details its authorities, including those of its Director-General and Technical Director, Chapter III sets up a bicameral parliamentary monitoring commission for the NSS, Chapter IV sets up an NSS Council, and Chapter V deals with the INDEC budget. Title III deals with obligations to respond to requests for information, treatment of data, secrecy and user rights. Title IV deals with sanctions; there are also some transitional provisions. While there was still some tidying up to be done on the draft<sup>1</sup>, its main features were clear and coherent.

15. Title I recapitulates the UN Fundamental Principles on impartiality, observance of scientific principles and professional ethics, and states that the NSS is governed by these Principles, as well as by the regional and international agreements and guidelines to which Argentina formally adheres – which would include the CRGSP. This establishes a basis for asserting the independence of Argentina's national statistical authorities. The draft also empowers INDEC and its Director-General to direct the operations of the NSS and to proclaim and modify guidelines and methods. The rank of the Director-General is established as that of a Secretary of State<sup>2</sup>, and the status of INDEC is raised to that of an autonomous body (*entidad autárquica*), both of which should further promote the independence of the statistical function in Argentina.

16. Nevertheless, there is no specific mention of the elements of Recommendation 2 of the CRGSP that urge Adherents to ensure that national statistical authorities have exclusive authority to decide on statistical methods and dissemination, and that they are protected by explicit provisions in statistical legislation from political and other interference in developing, compiling and disseminating official statistics. Now it must be admitted that in this respect the new draft law is no weaker in its protections than the existing laws of many other CRGSP Adherents. However, given the extent politically-motivated falsification of official

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<sup>1</sup> For example, Articles 18 and 19 on the appointment and functions of the Director-General of INDEC might be moved from Title III to Title II; the Chapter on INDEC's budget should be numbered V instead of IV, and there are some minor inconsistencies in the order of enumeration of various entities' composition and functions.

<sup>2</sup> This would confirm in legislation the raised status of the post conferred by Presidential order 181/2015, Article 8.



statistics in Argentina during the recent past, it might have been desirable for the new legislation to be more explicit and detailed in its protections of the scientific and technical independence of NSS staff. It would also be most regrettable if there were to be any weakening, before the bill passes into law, of the protections that remain in Articles 1 and 2 from political or other outside influence over the form or content of official statistics.

17. The draft would also create new structures. A National Statistical System Council would be constituted, comprising 15 members: 6 from government departments, 1 from the Central Bank, 4 from academic and professional bodies, and 4 from INDEC. The Director-General and the Technical Director of INDEC would have the right to attend and speak, but not to vote. The Council's functions would be largely advisory, but it would have responsibility for approving the National Statistical Plan and the Annual Report that INDEC would prepare, and it would also have to recommend, by a two-thirds majority, any proposal for the removal of INDEC's Director-General on grounds of poor performance, incapacity, criminal conviction, or disqualification.

18. The role envisaged for the Council represents a compromise between advisory and oversight functions. It should give voice to the needs and concerns of government departments without detracting from INDEC's authority to regulate methods and ensure the integrity of statistics across the NSS.

19. The draft would also create a Bicameral Monitoring Commission consisting of six Senators and six representatives appointed by the respective presiding officers of each house of parliament. It is designed to provide parliamentary oversight through the ability to receive and consider the National Statistical Plan and Annual Report, and issue corresponding proposals and recommendations. It would also be the authority to decide, by majority vote, to remove the Director-General of INDEC on the basis of a recommendation by the National Statistical System Council, as described above.

20. Again, the proposed Commission seems to be a reasonable compromise, allowing parliament its say in the operations of the national statistical system. Suggestions by elected representatives could offer useful additional input to that provided by the Council, and vesting the ultimate authority to dismiss the INDEC Director-General in a parliamentary body provides a useful additional safeguard against politically-motivated interference with INDEC's independence.

21. In addition to conferring institutional autonomy and legal personality, the new draft would give INDEC "broad powers to allocate and redistribute its funds" for projects and other activities, to regulate its staffing establishment, and to allocate tasks and make purchases. INDEC is also empowered to establish methodologies, certify quality, provide technical assistance to NSS units, and collaborate nationally and internationally in statistical activities. These powers are in line with the detailed suggestions made below, as are the provisions requiring objective, impartial and simultaneous dissemination of information, establishing users' access to data, and mandating the observance of the publication dates specified in a release calendar issued in advance.

22. Recommendation 5 of the CRGSP enjoins Adherents to ensure that national statistical authorities have the right to access administrative data for the regular production of official statistics. This right has been limited in Argentina to date, especially in respect of access to taxation records. The new draft bolsters the position of INDEC and other elements of the NSS by stating that confidentiality or secrecy provisions contained in other laws will only operate if they specifically deny access even for statistical purposes. This is balanced in the draft by strong protections of statistical secrecy for all data gathered under the law, whether from administrative sources or directly from respondents.

23. Overall, the May 2019 draft new statistical law would represent a considerable enhancement of the legal and institutional basis for producing Argentina's official statistics. To be effective in practice, however, it would first need to be passed by parliament and enacted into law, and then complemented by a renewed regulatory framework updating, in particular, Regulations 3110/70 and 927/2009. Given the troubled history

of Argentina's statistics, it would be important that this process at least maintains, and where possible reinforces, the provisions in the draft regarding the professional independence of the statistical function. Regulations could also assist in fleshing out the details of a number of issues and activities that are only adumbrated in the draft law, such as arrangements for a quality management system and the full gamut of means by which INDEC may achieve the necessary co-ordination of the NSS.

24. The remainder of this chapter considers, against each of the twelve recommendations in the CRGSP, the actual condition of Argentina's legal and institutional framework for statistics as at mid-2019, before closing with a summary of suggestions in this domain, which would be applicable regardless of any near-term developments in relation to the draft law.

## ***1.2 Assessment of Argentina's legal framework against the CRGSP recommendations***

***Recommendation 1. Put in place a clear legal and institutional framework for official statistics which should in particular provide:***

*i) details as to the organisation of the NSS, the legal status and role of the NSO, as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS;*

*ii) a clear mandate for institutions of the NSS to collect data for statistical purposes.*

25. Argentina's main statistical law (Law no. 17622) dates from 1968, and its main associated regulations (Order no. 3110/70) from 1970. Despite their origin during a period of military rule, these documents were fundamentally sound for their time and represented considerable progress, especially by integrating within INDEC many statistical functions previously performed by a range of other bodies using a variety of standards and criteria. Especially after the return of democracy in 1983, INDEC became a leader among Latin American statistical offices, recognised for the high quality of its outputs, its ability to keep pace with advances in international methodologies, and its capacity for innovation.

26. Section 4 of Law 17622/68 sets out the composition of the Argentinian NSS as follows: INDEC, the main regulator of the NSS; statistics central bodies defined as the statistical services of centralised and decentralised public bodies (ministries, secretariat of state, regulatory bodies, state companies, etc.); and peripheral statistical bodies (provincial and municipal statistical service bodies, etc.).

27. The other main legal instruments related to the NSS are as follows:

- Order 1831/1993 about the NSS;
- Provision 176/1988.

The regulatory framework has been substantially amended since 2015 by:

- Order 181/2015;
- Order 55/2016;
- Administrative decision 305/2017 (Chief of Cabinet);
- Decision 426/2017 (Ministry of Treasury);
- Order 891/2017: implementation of good practices as regards simplification (including digital policy);

- Order 894/2017: implementation of good practices in public administration, including the use electronic files;
- Resolution 141/2018 on the Work Programme 2018-2020;
- Resolution 53/2019 on the Work Programme for 2019;
- Resolution 85/2019, approving a new statistical dissemination policy; and
- Resolution 86/2019, approving a new INDEC Style Manual.

28. Despite the provisions in force at the time, Argentina's official statistics, and INDEC as an institution, suffered from periodic political interference, which became increasingly severe in the period 2007-2015. During these years, methods and data were distorted in order to produce figures which downplayed problems of inflation and poverty, and reduced debt service obligations. Resources were cut, professional standards declined, and Argentina's official statistics steadily lost credibility. The IMF issued a Statement of Concern in 2012 and a Declaration of Censure in 2013 concerning Argentina's inflation and GDP data.<sup>3</sup>

29. A new government entered office in December 2015, and on 7 January 2016, Order no. 55/2016 declared a "state of administrative emergency" in the NSS. This allowed the new Director of INDEC to reorganise it, and he proceeded to do so, including by replacing the bulk of the management team. Publication of key data series was suspended for several months, with new and more reliable series then progressively coming on stream. These data have been accepted and published by the OECD. The IMF Board lifted its Statement of Concern and Declaration of Censure on 9 November 2016. The state of administrative emergency was allowed to expire on 31 December 2016.

30. Reflecting on this experience, the OECD's preliminary review recommended that the statistical law be modernised to reinforce the professional independence of all producers of official statistics in Argentina. In particular, the review urged that, consistent with the CGRSP and the Fundamental Principles of Official Statistics, a new law and its attendant regulations should lay stress on the need for impartiality, objectivity and transparency of official statistics. This could be assured, inter alia, by providing that

- i. The head of INDEC should possess the exclusive authority to decide on statistical methods and dissemination, and the terms of his appointment should limit the possible grounds for his dismissal in ways that protect him from political interference in the exercise of his professional responsibilities. Argentina could consider adopting a fixed term for the Head of INDEC, independent of the term of the government or legislature, and involving a new National Statistics Council in the selection process.
- ii. Explicit legislative provisions should guarantee INDEC's capacity to ensure that managerial staff and senior technical experts are hired on the basis of their professional competences. INDEC's role should be reinforced in ensuring statistical infrastructure, and establishing a calendar of the main surveys, including population census, economic census, business register, etc.
- iii. The juridical status of INDEC should be reviewed and upgraded as appropriate to ensure its ability to control its financial, human and technical resources.

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<sup>3</sup> See <https://www.imf.org/en/News/Articles/2015/09/14/01/49/pr1333>. The IMF was following the procedure outlined in Article VIII, Section 5 of its Articles of Agreement, see [https://www.imf.org/external/SelectedDecisions/Description.aspx?decision=13183-\(04/10\)](https://www.imf.org/external/SelectedDecisions/Description.aspx?decision=13183-(04/10)).

- iv. The rights of the state to collect information, and its obligations and those of its agencies and staff to protect confidentiality of individual, financial, and other information should be affirmed and clarified.
- v. Access to administrative data should be reinforced in practice and specific technological, administrative and organisational provisions should be implemented to protect the security and integrity of statistical databases.
- vi. A comprehensive quality management system, or Quality Assurance Framework for official statistics, should be established. A revision policy and a corporate metadata strategy would further increase the credibility of official statistics.
- vii. The statistical legislation should reinforce INDEC's authority by specific provisions empowering INDEC to establish and maintain statistical norms as well as the main tools for the production and dissemination of official statistics.
- viii. A Permanent Advisory Council should be created to act as the highest level advisory body for official statistics.
- ix. The law should explicitly define the protocols for co-operation with other institutions within the National Statistical System.
- x. A National Code of Practice for official statistics should be developed.

31. The main thrust of these recommendations remains valid, as progress towards a new law has been slower than expected. Nevertheless, at the time of writing, the draft discussed in the Introduction was substantively agreed among departments, and in the process of being legally refined, though no definite date for submission of a bill to Parliament had been set.

32. Meanwhile, progress has continued in reforming the organisational structure of INDEC. Administrative Decision 305/2017 of the Chief of the Cabinet of Ministers created a new Management Directorate to oversee support functions; raised the hierarchical level of units concerned with statistical methodology, NSS co-ordination, and dissemination from directorates to National Directorates; and provided for the creation of six Regional Offices of INDEC to improve its oversight of the NSS (one for each statistical region in Argentina: Greater Buenos Aires, Pampas, Cuyo, North-east, North-west and Patagonia). Resolution 141/2018 approved a comprehensive three-year work programme for 2018-20 which envisaged substantial progress in six domains: institutional transformation, reinforcement of statistical capacity, NSS co-ordination, improving dissemination and access to statistics, developing international relations, and publishing technical reports related to main indicators.

33. A new statistical law, however, remains a priority. It should retain the virtues of the old law in enumerating the powers and functions of INDEC, while reinforcing its co-ordinating function over the totality of the NSS. But it must also be stronger in protecting INDEC's independence from political or other self-interested interference in future. We would especially emphasise the importance of point (iii) above concerning the juridical status of INDEC. At present it operates as a "deconcentrated" body under the Ministry of Treasury (Hacienda). This places it in a sort of legal limbo between a government department subject to complete ministerial control and an independent ("decentralised") authority. It lacks legal autonomy, which leaves it open to interference by the executive. A new law should confer on INDEC both legal personality and institutional autonomy. Its head needs to have sufficiently high standing in the government hierarchy to ensure senior level access to policy authorities and administrative public bodies.

***Recommendation 2. Ensure professional independence of National Statistical Authorities. To this end, Adherents should ensure that the National Statistical Authorities:***

*i) are professionally independent from other policy, regulatory or administrative departments and bodies,*

*as well as from private sector operators, considering that professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics;*

*ii) have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination;*

*iii) are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics.*

34. As already mentioned, the professional independence of the statistical authorities proved, in the period 2007-15, to be a fragile aspect of Argentina's statistical system. While INDEC has a legal responsibility to co-ordinate the NSS, and the powers to do so, its lack of institutional independence from the executive leaves its staff open to political pressures in the exercise of their duties. This did in fact occur in the period mentioned, and in some extreme cases led to dismissal or resignation of qualified personnel.

35. The political interference included infringements of professional independence to decide on statistical methods. For example, in the case of CPI data, directions were issued on sampling that had the effect of reducing the apparent level of inflation. Defective methods also led to artificially low levels of reported poverty, and distorted estimates of economic growth. Some further particulars are given in the chapters below on individual statistical collections.

36. On a superficial view, the existing legal framework might seem to have offered INDEC protections from such abuses. The statistical law empowers it to plan the activities of the NSS, develop an annual programme of work, establish methodologies, allocate tasks, supervise dissemination and co-operate with national and international bodies. The Head of INDEC is charged with the duty of carrying out these functions, and empowered to direct other entities of the NSS to fulfil their statistical responsibilities. No other body has any legal authority to interfere with INDEC's tasks.

37. Nevertheless, it is clear in retrospect that several specific weaknesses in INDEC's institutional set-up facilitated the interference that occurred from 2007 to 2015. As already noted, its status as a "deconcentrated" entity still leaves it within the jurisdiction of the ministry of Treasury, and it thus effectively remains part of the centralised executive machinery of government. It lacks functional and budgetary autonomy, and legal personality, and is thus unable to administer its own budget or to acquire rights or contract obligations with third parties on its own independent responsibility.

38. A positive step was the introduction of the Resolution 141/2018 establishing the 2018-2020 Work Programme, already discussed. The adoption in 2015 of the Order 181/15 appointing the Director of INDEC and upgrading his position from to Secretary of State level was another positive step towards ensuring that the office-holder has sufficient hierarchical standing to deal with policy and administrative matters at an appropriately high level.

39. Yet the independence of the head of INDEC is still not protected by legal safeguards against dismissal for political reasons: he or she can be dismissed by ministerial decree for any reason, or none. To enhance independence in future, grounds for dismissal of the head of INDEC need to be established, and these grounds should be carefully circumscribed in ways that protect the technical independence of the organisation. More generally, to ensure that the procedures of appointment and dismissal are independent from changes in government, they should be made transparent in explicit provisions in the statistics law.

40. At the level of individual staff, Argentinian public law provides in-principle protection of staff from unwarranted dismissal, and Order 3110/70 establishes rigorous criteria for the appointment of competent technical and managerial staff. In the case of temporary and contract staff, current protections are much weaker than for officials. Safeguards may need strengthening in this area, and there may well be a case for increasing the share of permanent staff, though INDEC needs to maintain the flexibility to hire sufficient

temporary workers for censuses and other major data collections. In any case, in revising its legal infrastructure for statistics, Argentina should ensure that recruitment of managerial and senior technical staff is based solely on their professional competence, and that all staff are protected against politically-motivated dismissals.

41. Although INDEC currently has the *de facto* ability to comment on misuse of statistics, its subordinate status as an organ of the Ministry of Treasury does not guarantee that this will be maintained over time. Any new statistical law should ensure that INDEC has full authority and autonomy to use appropriate mechanisms (press conferences, official statements, guidelines for responding to erroneous comments and misuse, dissemination of educational material, etc.) to respond to erroneous interpretations and misuses of official statistics.

42. Another risk to professional and scientific standards at present is the lack of an effective and formalised institutional involvement of outside experts in INDEC's professional functioning. In theory an Academic Evaluation and Monitoring Council (*Consejo Académico de Evaluación y Seguimiento*) established by Presidential Order 927 of 2009 could have provided some check on the degradation of the Argentinian statistical system then already underway. However, this Council's effectiveness was limited by several factors. The members served only in an honorary capacity and were instructed in the Presidential Order to review CPI methodology as a priority task. This review was then skewed by a further instruction in the Order to focus on the results of the Boskin Commission, appointed by the United States Senate in 1995, which had concluded that CPI methodology overstated US inflation by more than 1 per cent a year because of changes in products and consumer behaviour. The object of these injunctions appears to have been to steer the Council towards methods that might lower Argentina's reported CPI figures, when in fact these figures were already being massaged downwards. In any case the Academic Council effectively ceased to operate in 2010, as did a separate Economic and Social Observation Council designed to secure civil society input on statistics.<sup>4</sup> Future systems for providing academic and community advice to INDEC should be designed so as to protect its professional autonomy in determining its data collection and processing methods.

43. Over the course of this review, there had been extensive discussions in Argentina on the future top-level accountability structure for its NSS. There are many potential models for the governance structure of an NSS that can successfully serve a democratic society's needs of for reliable statistics. The two main models under consideration in Argentina were a board of directors within INDEC, and a statistical authority outside INDEC including representatives of various ministries.

44. The choice of institutional structure is a political one to be taken by the Argentinian authorities. The introduction to this chapter described the state of these discussions as at June 2019. The composition, mandate and functions of the proposed National Statistical Council appear to strike a good balance between protecting the independence of the statistical authorities on the one hand, and allowing for an appropriate level of strategic advice on the other. As in most other Adherent countries that have established similar Councils, its role focuses on advising and overseeing the national statistical office and the other components of the NSS, and reporting to the government. The proposal for a separate parliamentary commission on statistics, which would have the final say on any motion to remove the head of INDEC, would also help reinforce the institutional protection of statistical independence in Argentina.

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<sup>4</sup> A technical report by the University of Buenos Aires, issued in 2010, gave details of the less than satisfactory operation of the Academic Council. The report dismissed the hint to find methodological justifications for reduced CPI numbers as follows: "...while there is a global discussion of methodological questions concerning the design, elaboration and interpretation of economic and social statistics, the magnitude of the discrepancies observed in Argentina between official statistics, especially on prices, and other estimates and indicators both official and private, far exceeds the sphere of methodological debates and fundamentally calls into question the institutional framework for producing these statistics." [*Informe técnico de la Universidad de Buenos Aires (UBA) con relación a la situación del INDEC*, July 2010, <http://www.uba.ar/download/informe.pdf>, page 38].

45. Whichever model is chosen for Argentina's future NSS, compliance with the Recommendation is essential and to this end, the statistical legislation should explicitly provide assurance that deciding on the choice of methods, content of statistical outputs and timing of statistical releases is solely the responsibility of the national statistics office through its head. For Argentina's statistics to fully regain their reputation both nationally and internationally, they need to be designed, compiled, and released according to objective, scientific and predictable standards, and the governance structure must provide assurance that this will be the case. Particular attention therefore needs to be paid to the protection of the autonomy and decision-making power of the Director of INDEC through the measures indicated above.

***Recommendation 3. Ensure adequacy of human, financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics. To this end, Adherents should ensure that the resources are:***

*i) sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use;*

*ii) adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment.*

46. INDEC has largely recovered its organisational health after suffering significant degradations of its human resources in the period to 2015. The senior staff have been reorganised and many of them replaced. Consolidating these actions, the Chief of Cabinet issued Administrative Decision 305/2017 in May 2017, creating a new organisational structure which added a position of Director General of Management, reporting to the Head of INDEC. This freed up the former position of Technical Director (upgraded to Director General level) to concentrate solely on technical statistical matters, instead of being the effective deputy head of the organisation. A further Decision (426/17) issued by the Ministry of Treasury reorganised the next level of the hierarchy, that of the National Directorates of INDEC. The resulting structure, current as of June 2018, is shown in Table 1. Decisions have also been issued on good practices in administrative simplification (891/17) and on electronic files (894/17).

47. Budgetary resources appear adequate though not generous considering the scale of the task of rebuilding the country's statistical system, which had been starved of resources and undermined politically in the period to the end of 2015. The 2018 Budget of USD 72.3 million (at the June 2018 exchange rate) included a special allocation of USD 12.4 million for a national agricultural census, and USD 3.6 million for a national household and expenditure survey. The 2018 Budget presentation also included a new programmatic framework but so far this does not include physical goals and only provides limited breakdowns. While a more detailed itemisation of planned expenditures may be desirable, flexibility to move expenditures in the light of emerging needs must also be protected.

48. Financing for the budget comes mainly from the Treasury (81%), but also from other departments (6%) and also from substantial loans from the Inter-American Development Bank<sup>5</sup> (IDB) and the regional *Fondo Financiero para el Desarrollo de los Países de la Cuenca del Plata* (FONPLATA). The use of loan funds to carry out statistical activities is unusual. While the Study Team did not sense concerns about this modality during its visit, in the medium term the strategy of accepting loans may raise issues about repayment capacities or possible influence of the lenders over INDEC activities.

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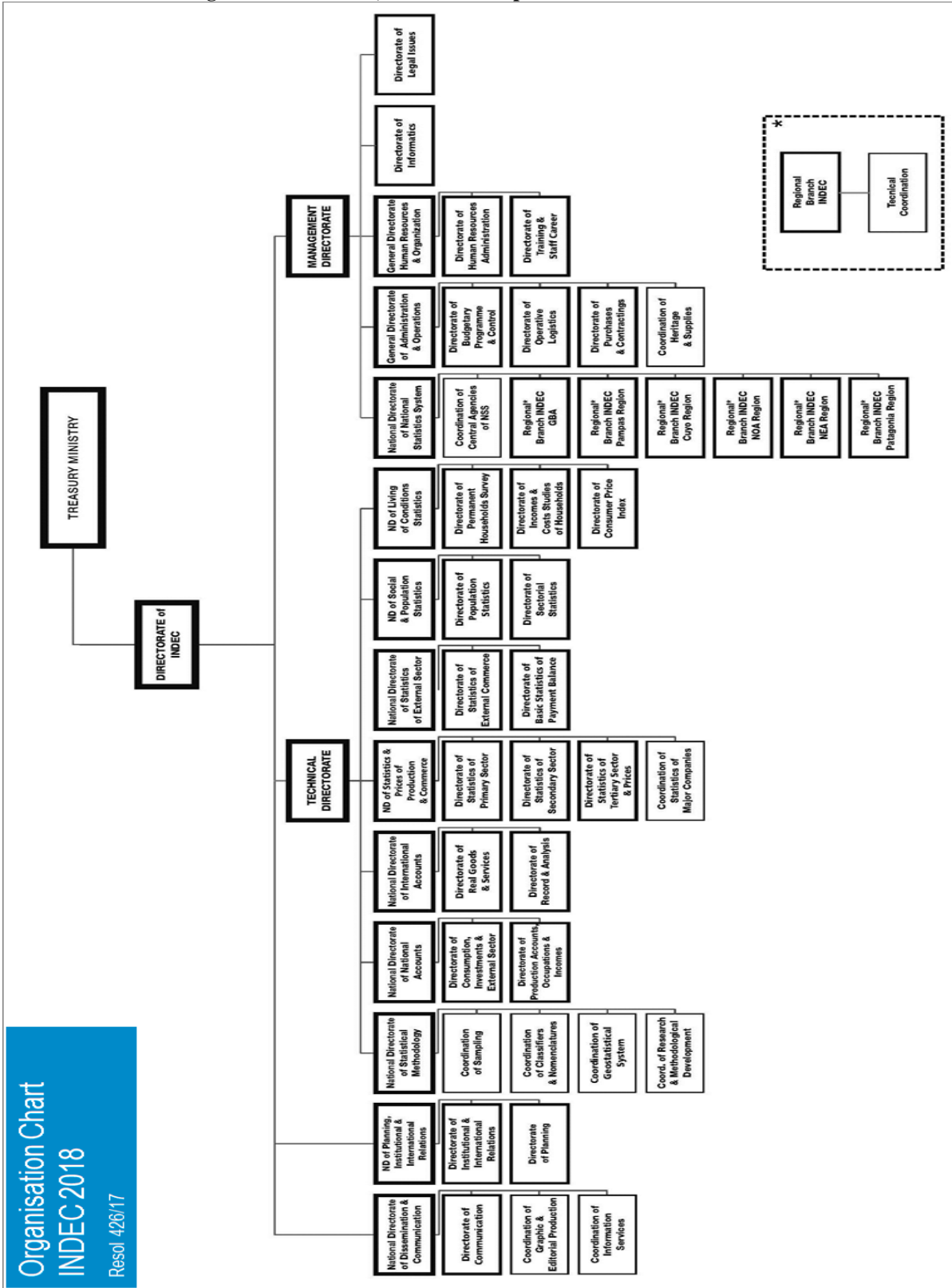
<sup>5</sup> [IDB loan proposal document AR-L1266](#) sets out the IDB's Program to Strengthen the Statistical Capacity of Argentina's National Statistical and Census Institute. The document provides a careful analysis of INDEC's strengths and weaknesses as assessed in July 2017.

49. Of the total 2018 budget spending, 87% was allocated to staff costs. Field work is largely carried out by the provinces, so only 20% of INDEC staff are allocated to these tasks, with 80% engaged in office work. From December 2015 to March 2018, total staff numbers fell slightly, from 1698 to 1632, yielding a budgetary saving despite the increase in the establishment.

50. Efforts are being made to further professionalise the staff, including through the hire of personnel via two leading universities. From December 2015 to March 2018, 80% of new hires were professionals, raising the share of these in the total staff from 30% to 47% over the same period (the proportion of professionals rises to around 60% if survey-takers are excluded). Nevertheless, recruitment of skilled personnel is hampered, especially in technical areas, by the low salaries prevailing for these workers in the Argentinian public sector.



Table 1.1 – INDEC Organisational Chart, introduced September 2017



51. In response to the need for greater professionalization, training and workshops for existing staff are being stepped up, including training for survey-takers, and INDEC has a joint venture with the National University of La Matanza to offer masters' courses in Survey Design, Management and Analysis. However, INDEC considers that these efforts need further expansion to foster professional and technical careers, develop distance training, and establish an Advanced Statistics Education Centre catering to both staff and the public.

52. The current status of INDEC does not permit putting in place recruitment procedures that are specific to a statistical office. A new, more independent status of the Institute would permit putting in place a *concurso* for recruitment that would test relevant skills of candidates. As noted against Recommendation 2, a new status for INDEC would also facilitate offering a more stable employment contract to a larger number of staff, further reducing the current high level of temporary contracts.

53. Expenditure on physical infrastructure has risen, but from a very low base. During the visit of the preliminary review team in November 2016, the possibility was being entertained of moving INDEC to new offices. Its current premises, while centrally located, had not been designed for a statistical agency and had seen little upgrading or refurbishment for decades. However, the idea of relocation has been dropped for the present in favour of rehabilitating the existing building. In 2017, USD 480 000 was spent on replacing all the toilets and elevators of the central office and on upgrading the electrical infrastructure, and a little over USD 500 000 on vehicles, furniture, sustainable lighting (LED lights in almost 90% of the building) and medical equipment (cardio defibrillator). This has made some improvements to working conditions, but considerably more needs to be done.

54. The total budgeted expenditure on plant, property and equipment was USD 3.1 million in 2018, slightly down on the 2017 figure of USD 3.3 million, but still well up on previous years. More than half these allocations are for new IT equipment and licences. Modernisation was long overdue in operating systems, e-mail, and to replace paper forms with electronic data collection. Data security also needed urgent upgrading, with the old data centre being located at a single site, without backup or adequate air-conditioning, and which suffered 20 power failures in 2017.

55. Other resourcing priorities in 2018 included advancing the roll-out of the six planned Regional Offices, preparing for upcoming censuses, surveying risk factors, and introducing new management and control systems. Under the current legal framework, INDEC still lacks an internal audit unit.

56. While progress since 2015 has been very encouraging, much work remains to fully restore INDEC's capacities and deepen and modernise its statistical collections. INDEC's budget will need to be maintained at an elevated level for several years to permit continued progress in raising the professional level and extending the skills of its staff, restoring and updating statistical infrastructure, improving access to administrative data, upgrading equipment and accommodation, and reinforcing co-ordination.

***Recommendation 4. Protect the privacy of data providers (including individuals, households, enterprises, administrations, and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes only.***

57. The statistical Law 17622 provides for statistical secrecy throughout the NSS (Article 10) in the following terms: "The information to be provided to the bodies that compose the NSS, in compliance with this Law, shall be kept secret and shall be used for statistical purposes only. The data shall be provided and published, exclusively, in joint compilations so that trade or monetary secrets, or individuals or legal entities therein mentioned are not revealed or singled out. The following registration data are exempted from statistical secrecy: name and surname or corporate name; address, and branch of economic activity." Further

articles oblige employees to maintain this secrecy and provide for mandatory dismissal from the civil service for breaches of secrecy, use of information for personal advantage, or wilful manipulation of data.

58. This is supplemented by an INDEC regulation, number 176/99, which imposes on INDEC staff and contractors an obligation to protect the confidentiality of personal information, and specifically provides that “In no case may lists of households, natural or legal persons, or establishments that are part of a sample, be provided.” The national constitution also guarantees rights of access to correct and appropriate information, and international conventions to which Argentina has subscribed, especially the Fundamental Principles of Official Statistics, offer further protection.

59. These obligations are made brought to the attention of new staff and this notification is recorded on their personnel files. The provisions are also displayed on INDEC’s website. Regulation 176/99 also provides that “The National Office of Statistical Methodology, Technology and Co-ordination of the NSS shall invite provincial and local statistical services to promote rules similar to this Provision as and where necessary.” INDEC reports that this has been done, and points out that Order 3110/70 (sections 14 and 15) makes the existence of such rules within other entities of the NSS mandatory for them to access statistical and census information compiled by INDEC. INDEC regulation 176/99 also extends the duty of confidentiality to national and international consultants, advisers, and official from other public bodies outside the NSS. INDEC includes a confidentiality clause in its agreements with other bodies, and these agreements explain which officials of those bodies will have access to relevant information shared by INDEC.

60. The tax authorities do not have access to confidential INDEC information. As mentioned under Recommendation 5, INDEC has been negotiating to obtain limited access to tax data, but recognises that the tax authorities may be prosecuted in case of leaks of personal information. A number of such leaks have in fact already occurred, as when the identities of persons who had declared assets under tax amnesties were leaked and published.

61. INDEC is currently reinforcing its efforts to ensure secrecy through upgrades to its data collection and storage infrastructure. Since November 2017, all IT equipment has been located in a Tier III data centre owned by the public company ARSAT (Satellite Argentina). INDEC reports that it is now using a secure network and has implemented an IT security ring featuring firewalls, an intrusion prevention system, and network access control. Applications for collecting and using data are also being updated and subjected to penetration tests. As of June 2019, INDEC was also working to update its procedures for ensuring anonymity of information.

62. INDEC is encouraged to continue its efforts to reinforce the protection of statistical secrecy. The new legislative framework should ensure that existing protections are maintained, and updated where necessary to reflect IT developments and the increasing automation and digitalisation of information.

**Recommendation 5.** *Ensure the right to access administrative sources to produce official statistics. To this end, Adherents should ensure that:*

*i) National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing the cost of statistical programmes;*

*ii) National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes.*

63. The Statistical Law 17622 makes clear in the following terms that public and private entities, as well as individuals, must provide INDEC with data of statistical interest:

*“Article 11.- All national, provincial and local bodies and offices, individuals or legal entities, whether public or private, established in Argentina, shall provide the bodies that compose the NSS with information and data of statistical interest that may be required by them.*

*“Article 12.- Be the National Institute of Statistics and Censuses authorized to require, when considered necessary, that individuals or legal entities that are bound to provide information of statistical nature disclose accounting books and entries for the purposes of verifying any such information. If the provided data are not entered in the accounting books, the original documents and records upon which the information provided was based shall be disclosed.”*

64. The law also provides for penalties for non-compliance with these provisions. However, these penalties have never been applied, the provisions are rather general, and there may be a case for reviewing their wording in the light of the massive expansion of administrative records since the period of the statistical law and presidential order, which are now almost half a century old.

65. In practice, INDEC negotiates bilateral agreements with relevant ministries and other NSS entities to access their administrative data. As in many other countries, administrative records are increasingly being exploited to replace or update census or survey information. INDEC cited increasing use of administrative records to compile the economic census and mentioned several of its “national directorates” as making intensive use of such records, including those concerned with national accounts, industry statistics, the balance of payments, and prices and incomes. At the time of the review, it was developing a joint work plan with the National Council for Co-ordination of Social Policies, which falls under the national presidency, to exploit for statistical purposes data in the National Taxation and Social Identification System (SINTyS).

66. INDEC also has the role and responsibility to influence the design of administrative records to ensure that they are fit for statistical purposes. INDEC gave as an example its work to harmonise and store data on cases of violence against women received from a variety of national and provincial agencies.<sup>6</sup> For this purpose it developed conceptual and methodological criteria for establishing which information would be entered in a system of single records of cases of such violence that allowed administrative records to be used for statistical purposes. However, INDEC recently received a formal communication from the Supreme Court denying access to its register concerning gender violence.

67. At present, INDEC’s access to administrative data is limited to the executive branch of government and it has no right to access data compiled by the legislative or judicial branches, while accessing administrative data at the sub-national level remains difficult. Whether and under what conditions this might be allowed in future could be clarified in clear provisions in the new statistical legislation. In order to better comply with the Recommendation, the amended statistical legislation should also set out the conditions for the owners of administrative information to involve the statistical authorities in the design and quality of administrative records when they are used in the production of official statistics.

68. The new statistical law should clarify and reinforce access to administrative data for statistical purposes, and specific technological, administrative and organisational provisions should be implemented to protect the security and integrity of statistical databases. These changes in the legislation, together with appropriate institutional arrangements (co-operation, committee with representatives of interested public bodies, monitoring, quality management, appropriate procedures for sharing data, standardised metadata, common identifier, etc.) would positively contribute to increasing the use of administrative data and microdata to produce high-quality official statistics.

***Recommendation 6. Ensure the impartiality, objectivity and transparency of official statistics through the***

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<sup>6</sup> INDEC’s work on Residential Property Price Indices (RPPIs) similarly requires harmonisation of information available in various administrative registries.

*development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence, put in place in an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies in particular equal access to data by all users.*

69. In practice, INDEC has made rapid progress in this area over the past three years. In this connection it must be remembered that from 2007 to 2015, data collection and compilation methods suffered extensive politically-motivated interference. From the end of 2015 until 2017, INDEC undertook extensive revision of its methodologies (see Recommendation 7 below) to bring them back into line with established criteria of impartiality and objectivity.

70. The new statistical data produced since May 2016 in a widening range of domains are credible and have been welcomed by the public and internationally. Public information material, for example the brochure explaining CPI methodology first released in August 2016, is excellent and could serve as an example for national statistical offices in other countries. The website is clear and well-organised, and the textual explanations strike the right balance between statistical rigour and accessibility to a wide audience of users.

71. In January 2017, INDEC implemented a rolling schedule of fixed and unchangeable data release dates twelve months in advance, in Spanish and in English<sup>7</sup>, so as to ensure transparency and strengthen the perception of independence of the data dissemination. Data releases are made at 4 p.m. sharp local time and measures are taken to ensure simultaneous access by all users, especially where data may affect markets. The principle of simultaneous access has been formalised in INDEC's official dissemination policy<sup>8</sup>, though this could also be reinforced in a new statistical law or order.

72. Data in press releases is presented in an objective manner, focusing on the observed movements in values, and eschewing political commentary. Methodologies for statistical series are available digitally<sup>9</sup> and changes to methods or presentations of data are flagged to users at least 30 days in advance. Material errors discovered after publication are noted by errata in printed material and notices posted on websites.

73. Special problems remain because of the abuses of the period 2007-15. Numerous statistical series for those years are unreliable. A few have been recalculated, but in other cases revisions are not possible because of the absence of reliable source data to serve as a basis for the recalculation. This means there are many breaks in series in the published data. These are flagged on the website, and enquirers are warned to treat the unrevised series with caution.

74. Despite the substantial progress in reforming methods and disclosure protocols at institutional level, there is still a lack of specific legislative provision regarding impartiality, objectivity and transparency in the development and presentation of Argentina's official statistics. In reviewing the national statistical legislation, consideration could be given to introducing new provisions in this area, for example by making these desiderata part of the duties of INDEC's governance structure and its eventual academic advisory body.

***Recommendation 7. Employ sound methodology and commit to professional standards used in the production of official statistics. To this end, Adherents should:***

*i) apply appropriate statistical procedures and methods, including a stated revisions policy;*

<sup>7</sup> <https://www.indec.gob.ar/indec/web/Calendario-EnglishCalendar-0>

<sup>8</sup> [https://www.indec.gob.ar/ftp/cuadros/publicaciones/politica\\_difusion\\_indec\\_ingles.pdf](https://www.indec.gob.ar/ftp/cuadros/publicaciones/politica_difusion_indec_ingles.pdf). There are some tightly regulated exceptions to the principle of simultaneous release. For example, INDEC has introduced a protocol to disseminate Permanent Household Survey data on each province to the respective provincial statistical office 6 to 24 hours in advance. These advance data are embargoed until the specified time of release.

<sup>9</sup> <https://www.indec.gob.ar/indec/web/Institucional-Indec-Metodologias> and [https://www.indec.gob.ar/ftp/cuadros/publicaciones/indicadores\\_coyuntura\\_fichas\\_2019.pdf](https://www.indec.gob.ar/ftp/cuadros/publicaciones/indicadores_coyuntura_fichas_2019.pdf)

*ii) strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD.*

75. Articles 5.c and 9 of Statistical Law 17622, and Order 3110/70, give INDEC responsibility to ensure that appropriate methods are used in producing and disseminating official statistics and that its missions and functions observe appropriate criteria and procedures. Within this framework, the INDEC is responsible for (i) planning, designing and participating in the implementation of methodological tools and developments; (ii) taking part in elaborating standards, concepts, methods, classifications and quality standards applied throughout the NSS; (iii) keeping statistical registers and the system of sampling frames for social surveys and economic units, to ensure the subjective coherence of surveys; and (iv) providing methodological services for units of the NSS.

76. However, as already noted, the quality of Argentina's statistical methods declined sharply over the period 2007-15. Following the declaration of a state of administrative emergency in statistics in early 2016, INDEC conducted a methodological review to determine whether statistical processes met the standard quality principles of professional independence, impartiality and objectivity, accuracy and reliability, consistency and comparability, clarity and transparency, and relevance. Statistical programmes were assessed according to their:

- i. Thematic coverage
- ii. Consistency and coherence
- iii. Validity of the source or/and basis of methods
- iv. Supporting Technical documentation
- v. Date of last internal review
- vi. Sampling design
- vii. Estimation Methods
- viii. Accuracy (in terms of margin of error)
- ix. Treatment of non-response
- x. Missing Data Imputations
- xi. Treatment of sources of non-sampling errors
- xii. Validity and internal consistency of IT processes
- xiii. Quality process
- xiv. Dissemination and micro-data standards
- xv. Scientific rigor.

77. The review concluded that a number of statistical programs did not meet the standards, and this led to suspending the production of some fundamental statistics including consumer price indices, national accounts, and poverty statistics. After appropriate measures were taken to re-establish quality and consistency, publication of these series gradually resumed.

78. The new administration of the INDEC expressed to the Study Team its determination to promote and ensure the implementation of international standards, classifications, and definitions in the collection, production, and dissemination of official statistics within the NSS. This was reinforced in the 2017 reorganization by upgrading the methodological function to the status of a National Directorate within INDEC. Specific steps taken to improve statistical procedures include:

- i. Introducing the National Nomenclatures System (Spanish acronym SiNN) to standardise and harmonise the use of international classifications and classifications used in MERCOSUR countries in the production of official statistics in Argentina.
- ii. Establishing an advisory committee including academic experts to provide overall guidance and advice on the main guidelines, scope, and data collection, of the next Household Expenditure Survey (ENGHO).
- iii. Reviewing and upgrading the Master Sampling of Urban Households of the Argentinian Republic (Spanish acronym MMUVRA), based on the 2010 census, to reform the sampling, incorporate it in digital cartography, and modernise collection methods and process documentation. The MMUVRA is used in multiple surveys, including of household expenditure, the labour force, and living conditions.
- iv. Systematically testing questionnaires and production processes prior to data collection and production, including for the ENGHO, the Victimization Survey, and the upcoming 2020 population and housing census. The questionnaires used in continuous data collection programmes, such as the Permanent Household Survey, are only evaluated and tested when important changes occur or when new thematic modules are introduced.
- v. Increasing staff competencies (cf. Recommendation 3) including through contacts with universities to recruit graduates in mathematics, statistics, Economics, Sociology, and IT. INDEC has also reached agreements with the National Scientific and Technical Research Council (CONICET) to strengthen the relationships with scientific and academic community and to obtain inputs on various methodologies.
- vi. Establishing data presentation guidelines, notably in the Style Manual (cf. Recommendation 9 below), to ensure that statistics are presented in a way that facilitates proper interpretation of official statistics.
- vii. Announcing major methodological changes in advance with press releases and explaining them fully in additional articles published on INDEC's website.<sup>10</sup>

79. While these represent major improvements in a short time frame, more remains to be done, especially in the wider NSS. INDEC itself uses various current international concepts, standards, classifications and nomenclature, and encourages the use of the SiNN and other standards across the system. Yet there is no systematic mechanism for harmonising concepts, standards and classifications throughout the NSS. As a first step towards further standardisation, INDEC was working, as of mid-2018, towards a plenary meeting of entities of the NSS to disseminate an agreement on good practice and quality assurance across the system.

80. At present there is no systematic data revision policy or strategy for ensuring the adequacy of metadata that explain, for each dataset, the relevant concepts, scope, classifications, basis of recording, data sources, statistical techniques, differences from internationally agreed standards. Revision policies and schedules are included in the methodologies of selected statistical operations, and revisions are decided on an *ad hoc* basis for other collections. The Study Team recommends that INDEC pursue its work to develop a data revision policy and provide detailed metadata for all the statistical subject domains.

81. As detailed elsewhere in this review, INDEC envisages a longer-term effort to develop a national statistics code of practice, a comprehensive program to control the quality of censuses and surveys, a

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<sup>10</sup> Numerous detailed methodological documents on various statistical domains are now available at <https://www.indec.gov.ar/indec/web/Institucional-Indec-Metodologias>.

methodology for a business register and a system to produce business statistics. Successful prosecution of these initiatives will be instrumental in upgrading the methodologies employed in Argentina's NSS.

82. INDEC's efforts so far have made a major positive contribution towards restoring the quality of statistics and need to be further extended to all statistical processes. However, INDEC may require more authority and appropriate resources, including qualified staff, to fulfil its responsibilities over the NSS as defined by the statistical legislation, and ensure that international statistical classifications and standards are applied throughout the NSS. Any new statistical law should reinforce and update INDEC's authority to establish and maintain statistical norms as well as the main tools for the production and dissemination of official statistics, such as statistical registers.

**Recommendation 8.** *Commit to the quality of statistical outputs and processes, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the Quality Framework and Guidelines for OECD Statistical Activities: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistical products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).*

83. Since the end of 2015, INDEC has placed increasing emphasis on ensuring the quality of statistical processes and outputs. As already noted, statistical processes and outputs were reviewed after the declaration of administrative emergency in statistics, and INDEC identified a number of strategic challenges for quality management. During this process, it also began implementing methodological enhancements aimed at improving the consistency and comparability of statistics, data validation processes, and the timeliness of source data, notably for the production of national accounts and price statistics.

84. As far as the Study Team could judge, the general quality of the statistical series now being published by INDEC is good, and meets international standards in the vast majority of cases. Timeliness and periodicity meet the criteria of the IMF's Special Data Dissemination Standard (SDDS), and coherence and comparability have been improved, though there are severe limits on improving past data from the years 2007-15. Studies have commenced of sampling and non-sampling errors in data series. User surveys are being carried out to obtain feedback, press reports of statistical releases are monitored, and INDEC's press clipping service is carried out by a third party.

85. At the level of quality assurance systems, however, significant work remains to be done. While INDEC has adopted quality principles and criteria from the UN's Fundamental Principles for Official Statistics and the ECLAC's Code of Practice for Official Statistics in Latin America, as well as the OECD Recommendation, it lacks a comprehensive quality management system to support processes and establish quality indicators, and this is also true of the NSS as a whole. There is also no certification process of statistical processes and outputs.

86. During the review process, INDEC expressed its intention to implement a quality management system, and commenced work on this process as detailed below. Over this period, it was also conducting a survey of the structures, personnel and operations of the other principal entities of the NSS. It found that not all provincial statistical bodies are well structured and organised, and was therefore encouraging provinces to modify their statistical laws to promote better governance arrangements. It also envisaged that the new federal legal framework would regulate quality assessment and certification processes.

87. As of mid-2018, INDEC planned to:

- i. implement quality indicators adapted from the Generic Statistical Business Process Model (GSBPM) developed by UNECE in the context of the modernisation of standards;



- ii. further develop work to gradually implement a quality management approach oriented to statistical processes and outputs for INDEC and the NSS as a whole. This project was in its initial stages: a theoretical framework was being drafted, the indicators to be incorporated were being selected and calculated, and the institutional monitoring structure was being designed. A Technical Management Committee was envisaged, comprising the directors of the substantive directorates of INDEC. The Study Team suggests that it would be useful to establish a detailed timetable for further steps in this process, including relevant training programmes for INDEC and other NSS staff once the framework and Committee are in place. In the meantime, quality reviews of other countries' systems may help give ideas for implementing an effective system in Argentina;
- iii. develop a Code of Practice for official statistics. This should contribute positively to further enhance the practical implementation of quality management and improve the quality of statistics across the NSS;
- iv. revise samples and include estimates of sampling errors such as coefficients of variation in methodological notes; and
- v. strengthen consultation with users and to develop a plan for evaluating user satisfaction immediately after the process of reviewing official statistics launched in 2016.

88. As noted under Recommendation 3, there have been significant quality improvements in the IT environment, especially for storing and disseminating data. Its implementation of a standard release time and fixed release calendar also contributes to the broader dimensions of statistical quality.

89. However, as noted under Recommendation 7, INDEC has no systematic data revision policy in place, and it would improve the user experience if revisions could take place according to a predetermined schedule and within a systematic policy framework that provided users with detailed information on quality, potential causes for revisions, and a timetable for releasing final data. Revision policies are recognized as an important aspect of good governance in statistics, and INDEC indicated that it would be working towards a revision policy in the near future.

90. Also as noted under Recommendation 7, metadata should be presented in accordance with a uniform and standardised format. As a further contribution to quality, INDEC could consider the translation of metadata into English, allowing international users to access detailed methodological information. During the review process, INDEC has started to translate available methodological documents on the consumer price index and national accounts statistics into English, and committed to develop English versions of all the future methodological information.

91. In summary, INDEC is well aware of the main challenges as regards the quality of statistics perceived by the users. Initiatives to improve the quality of official statistics are now well in hand and should be energetically prosecuted. INDEC should continue to work towards a comprehensive quality management system, or Quality Assurance Framework for official statistics, develop an updated revision policy, maintain its advance release calendar, develop a Code of Practice for official statistics, and standardise its metadata, including in English for important methodological information.

92. Strengthening users' involvement is also essential to ensure that statistics remain relevant to their needs, to provide input to INDEC decisions about planning and quality management, and to identify ways to improve the efficiency of data collection, production and dissemination. The new legal framework should encourage appropriate mechanisms to reinforce users' involvement, for example, by facilitating user feedback through regular satisfaction surveys, participation of users in more formal consultation mechanisms, and development of guidelines for identifying user needs. In this context it should be noted that an increasing number of OECD Members are considering revising their statistical legislation to introduce

new provisions on the regulation of data transmission by a larger number of data holders in order to tackle issues related to data sharing and the re-use of data.

**Recommendation 9.** *Ensure user-friendly data access and dissemination, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine-readable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.*

93. INDEC is legally responsible of the dissemination of official statistics in Argentina under Article 5.f) of the Statistics Law. Recognising the importance of its dissemination strategy<sup>11</sup> in restoring trust in official statistics, its publications department (National Directorate of Dissemination and Communication) embarked on a series of initiatives to ensure that official statistics are well understood and correctly interpreted, and to promote informed public debate and exchanges with users.

94. Since early 2017, a range of new products, procedures and services has been introduced to ensure that official statistics are disseminated widely for free. INDEC now ensures an equal and simultaneous access to statistics (including microdata) for all users for free of charge, and it makes full use of social networks, bulletins, press releases, etc. to flag new data releases and publications.<sup>12</sup> An release calendar with irrevocable release dates over the following months of the year is being published in advance.<sup>13</sup>

95. INDEC's website ([www.indec.gob.ar](http://www.indec.gob.ar)) was restyled in 2016 and now allows users to download time-series easily in various formats. There is a plan to renovate the website, which is aimed at guaranteeing accessibility and transparency in the dissemination of statistical products and achieving a better understanding and interpretation of data. The first stage of the project will be completed in July 2019 and includes a new style applied to all sections of the site to improve presentation of contents, a main menu to improve access to main indicators, a navigable advance release calendar in the main page, and an improved search engine. The next stage of the project is currently being developed within the national directorate of dissemination and communication and will include a phone app for users of mobile devices.

96. Associated technical reports, methodologies, and other dissemination materials are available in pdf format and key statistics are presented in easy to find tables and charts. Statistical tables can be exported in Excel, while databases in Redatam (a program that uses a summarised hierarchical database and contains microdata and aggregate data with millions of records of different types from any combination of censuses, surveys or other sources).

97. Published micro-databases enable users to process data from the:

- Permanent Household Survey (PHS): Microdata and documents 2016-2018
- Permanent Household Survey (PHS): Microdata and documents 2003-2015
- Permanent Household Survey (PHS): User base Continuous PHS (2003-2007)
- Permanent Household Survey (PHS): User base Extended Point-based PHS (1995-2006)
- Permanent Household Survey (PHS): Point-based PHS bases (for October 1974-1983 and May and October 1984-1994 waves)
- Annual Survey of Urban Households (EAHU): Third quarter 2010 to 2014

<sup>11</sup> [https://www.indec.gob.ar/ftp/cuadros/publicaciones/politica\\_difusion\\_indec\\_ingles.pdf](https://www.indec.gob.ar/ftp/cuadros/publicaciones/politica_difusion_indec_ingles.pdf)

<sup>12</sup> See, for example, @INDECArgentina on Twitter; also [Facebook](#), [Youtube](#) and [Instagram](#), and [LinkedIn](#). The main Argentinian media outlets also receive reports via email and phone apps such as Whatsapp. Significant new operations are presented on information microsites such as that on the Survey of Household Income and Expenditure, (<https://www.indec.gob.ar/engho>) or the upcoming National Agricultural Census (<https://cna2018.indec.gob.ar>).

<sup>13</sup> <https://www.indec.gob.ar/indec/web/Calendario-EnglishCalendar-0>

- National Survey on Sexual and Reproductive Health 2013 (ENSSyR)
- National Risk Factors Survey (ENFR) 2005
- National Risk Factors Survey (ENFR) 2009
- National Risk Factors Survey (ENFR) 2013
- National Survey on the Prevalence of Psychoactive Substance Consumption (EnPreCoSP) 2008 and 2011
- Global Adult Tobacco Survey (GATS) 2012
- Module on Access to and Use of Information and Communications Technologies (Permanent Household Survey) 2016 and 2017
- National Household Expenditure Survey 2012-2013
- National Household Expenditure Survey 2004-2005
- National Household Expenditure Survey 1996-1997
- National Household Expenditure Survey 1985-1986
- National Victimization Survey 2017
- National Survey on the Quality of Life in Older Adults (ENCaVIAM) 2012
- EAHU Module on Unpaid Work and Time Use - Third quarter 2013
- EAHU Module on the Activities of Children and Adolescents (MANNyA) - Third quarter 2012
- National Survey on Access to and Use of Information and Communications Technologies (ENTIC) 2011
- National Census of Population, Households and Dwellings 2010: REDATAM database of basic questionnaire
- National Census of Population, Households and Dwellings 2010: REDATAM database of extended questionnaire
- National Census of Population, Households and Dwellings 2001: REDATAM database
- Human Settlements Base of the Republic of Argentina (BAHRA)
- Geographical bases
- SEN cartography and geographic codes search system
- National Traffic Route Nomenclature
- OPEX georeferenced search system
- Foreign trade in goods search system
- Exports and imports bases available in the foreign trade system by year.

Micro-databases to be published:

- Annual Survey of Urban Households (EAHU): Third quarter 2016 to 2018
- National Risk Factors Survey (ENFR) 2018
- National Household Expenditure Survey 2017-2018 (ENGHo)
- Survey on the Activities of Children and Adolescents (EANNA) 2016-2017
- National Study on Profiles of People with Disabilities (ENPPD) 2018

98. INDEC also releases printed publications such as the INDEC *Informa* (a monthly journal that includes all main indicators), the quarterly Industrial Products Statistics, the Statistical Yearbook of the Republic of Argentina, and methodological publications. The in-house INDECcionario, a Spanish-English statistical dictionary, is available in the website,<sup>14</sup> and will absorb the in-house Spanish glossary<sup>15</sup> and be expanded to include definitions.

<sup>14</sup> <https://www.indec.gob.ar/indec/web/Institucional-Indec-IndeccionarioEng>

<sup>15</sup> <https://www.indec.gob.ar/indec/web/Institucional-Indec-Glosario>

99. INDEC is producing high-quality educational material to improve understanding of official statistics. The first publication of a new “Footnotes” (*Notas al pie*) series was titled "What is the Consumer Price Index?"<sup>16</sup> and it offers accessible, attractively presented information on CPI methodology. There is an ongoing programme for teaching statistical literacy, INDEC Educa, for use in primary and secondary educational institutions. It mainly consists of school visits to INDEC, which include interactive talks and educational material on the Institute’s statistical products. The Institute also promotes statistical literacy by participating in events, such as the annual Buenos Aires International Book Fair, to bring easily understandable material to the general public.

100. Resources in English are being expanded for international users. The INDEC website includes an English section providing basic organisational information (legal foundations, institutional missions and functions, history) and the main indicators on prices, industry, construction, services and foreign trade. INDEC is currently working on translating other material and increasing the availability of statistical content into English.

101. Progress in the dissemination function has been consolidated through a comprehensive Style Manual<sup>17</sup> and the Statistical Dissemination Policy, which were formalised by Resolution 86/2019<sup>18</sup> and Resolution 85/2019<sup>19</sup> respectively, meaning that they are legally adopted as guidelines for use at INDEC and throughout the NSS. The former serves as guide to standard presentation of data and organisation of reports and the latter explains INDEC’s broader publication policies, strategies and objectives.

102. The Manual imposes a form of discipline in the treatment and presentation of data, when for example it specifies that: “In the case of those results that present data estimated from a sampling frame, each programme must establish the most appropriate manner to express the coefficients of variation (CV), indicating them with their values or through some sign specific to that program. It is recommended that these decisions are maintained over time.” (p. 30)<sup>20</sup>

103. As regards misuse of official statistics, the Policy (p. 10) states that: “INDEC is not responsible for misuse of statistical results in any media or format external to the institution. The DNDC [National Directorate of Dissemination and Communication] reserves the right to publicly correct and clarify, by means of its official communication channels, whenever misuse of information is detected, in order to avoid any misinterpretation that may damage the credibility or the technical quality of official statistics. If any such action or omission should occur, either deliberately or by neglect or ignorance, an official statement shall be issued clarifying the correct use of the published data.”

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<sup>16</sup> Available in Spanish ([https://www.indec.gob.ar/ftp/cuadros/economia/ipc\\_nacional\\_que\\_es\\_06\\_18.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/ipc_nacional_que_es_06_18.pdf)) and in English ([https://www.indec.gob.ar/ftp/cuadros/economia/cpi\\_what\\_is\\_06\\_16.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/cpi_what_is_06_16.pdf)).

<sup>17</sup> *Manual de estilo, Normas INDEC N°7:*

[https://www.indec.gob.ar/ftp/cuadros/publicaciones/manual\\_estilo\\_indec\\_03\\_19.pdf](https://www.indec.gob.ar/ftp/cuadros/publicaciones/manual_estilo_indec_03_19.pdf)

<sup>18</sup> <https://www.boletinoficial.gob.ar/detalleAviso/primera/205728/20190417> ;

English at:

[https://www.indec.gob.ar/ftp/cuadros/menusuperior/documentos-auxiliares/resolution\\_86\\_2019\\_style\\_manual.pdf](https://www.indec.gob.ar/ftp/cuadros/menusuperior/documentos-auxiliares/resolution_86_2019_style_manual.pdf)

<sup>19</sup> <https://www.boletinoficial.gob.ar/detalleAviso/primera/205727/20190417> ;

English at:

[https://www.indec.gob.ar/ftp/cuadros/menusuperior/documentos-auxiliares/resolution\\_85\\_2019\\_policy\\_indec.pdf](https://www.indec.gob.ar/ftp/cuadros/menusuperior/documentos-auxiliares/resolution_85_2019_policy_indec.pdf)

<sup>20</sup> An example of this practice can be found at:

[https://www.indec.gob.ar/uploads/informesdeprensa/eph\\_pobreza\\_02\\_17.pdf](https://www.indec.gob.ar/uploads/informesdeprensa/eph_pobreza_02_17.pdf)

104. However, as noted under Recommendation 2, the subordinate status of INDEC may limit its ability to issue official statements commenting on misuses of statistics, and it would be opportune to specifically mention its right to do so in any new statistical legislation.

105. The Statistical Dissemination Policy also enshrines the free and simultaneous publication of indicators on INDEC's website, and regulating the pricing of publications in accordance with legally established norms.

106. Basic information on the nature and purpose of individual NSS statistical series is obtained through the Statistical Services and Operations Survey and made available on INDEC's website.<sup>21</sup> While there is no comprehensive standardized metadata system currently in place in Argentina, INDEC's Technical Directorate is studying the possibility of using the Statistical Data and Metadata Exchange (SDMX) to present such metadata with the results of the main indicators. The country has been a subscriber of the IMF Dissemination Standards Bulletin Board (DSBB) since 1996, posting its metadata on the IMF Special Data Dissemination Standard (SDDS). Until 2006, Argentina complied fully with these standards, and work is under way to restore this compliance.

107. INDEC's Survey of Statistics of the NSS and its Statistical Operations allows the continuous updating of the list of members of the NSS and provides information in standardized files on the features of the Statistical Services and the manner in which they produce statistics. The files cover the content, collection, methodology, dissemination, and other aspects of each statistical operation in a format agreed with the other full members of Mercosur (Brazil, Paraguay and Uruguay). Outputs are available on the INDEC website, providing a comprehensive view of the production of official statistics across the entire public administration.

108. Overall, INDEC's recent progress in its communication and dissemination of statistical information – including the equal and simultaneous access to statistics for free, the new Style Manual, the advance release calendar, the new bilingual glossary<sup>22</sup>, the development of brochures and other educational materials – has been excellent.

109. Further progress can however still be made. The provisions of Order 3110/70 relating to publications and information are antiquated and in need of review. INDEC will also need to work towards ensuring that the progress it has made in dissemination and communication is extended and consolidated throughout the rest of the NSS.

**Recommendation 10.** *Establish responsibilities for co-ordination of statistical activities within the NSS. To this end, Adherents should ensure that:*

*i) the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort;*

*ii) responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation.*

110. The Argentinian statistical system, which reflects the administrative structure of the country, is neither fully decentralised, nor fully centralised. Argentina has three administrative levels. Immediately below the national level, it comprises 24 major administrative units (local governments), consisting of the 23 provinces and the autonomous city of Buenos Aires, considered as a federal district. While provinces have different administrative structures, most of them are divided into sub-local government structure

<sup>21</sup> See <https://www.indec.gob.ar/indec/web/Institucional-Indec-SistemaEstadistico>

<sup>22</sup> "INDECcionario": see <https://www.indec.gob.ar/indec/web/Institucional-Indec-Glosario> and <https://www.indec.gob.ar/indec/web/Institucional-Indec-Indeccionario>

including departments and municipalities. Sub-provincial administrative units are legislated at the provincial level.

111. According to Article 3 of the Law 17622, INDEC shall have to “structure the NSS by way of the articulation and co-ordination of the national, provincial and local statistical services, and put the NSS in place in accordance with the principle of regulatory centralisation and executive decentralisation.” Thus the national statistics legislation establishes a normative centralisation of the NSS, an executive decentralisation and a soft co-ordination based on co-operation between producers of statistical information.

112. Inter-institutional relations rely on bilateral agreements on data sharing. The content of these agreements is determined, and regularly updated, at the level of each statistical subject area. The normative centralisation implies that INDEC is mandated to define official national statistical outputs and services (planning), define methodologies and conceptual statistical frameworks, set up dissemination policies for all national statistical information, and pursue the implementation of statistical best practices across the NSS. The executive decentralisation implies that data collection is mainly ensured by the provincial statistical offices in accordance with bilateral agreements with INDEC, and that the vast majority of human resources involved in fieldwork is composed of provincial staff.

113. According to Order 1359/2004 and especially Resolution 779/2004<sup>23</sup> of the Ministry of Treasury and Public Finance, INDEC has the responsibility “to co-ordinate the participation of provincial jurisdictions and other elements of the NSS in the formulation and execution of the annual statistical plan; to co-ordinate relations with other organs of state, proposing the inclusion of new activities in the annual plan;...to propose and manage budgets for activities deriving from international or inter-institutional co-operation; [...and] to design programmes of information exchange with national and international organisations”.

114. Article 9 of Law 17622 further establishes that “For the purposes of carrying out the tasks that make up the annual program or statistical plans formulated by the National Institute of Statistics and Censuses, central and peripheral offices will be normatively dependent on it and will use the methods, definitions, forms, cartography, classifications, formulas and any other technical regulations or standards established by the Institute for the collection, preparation, analysis and publication of statistics and censuses.” Article 9 thus explicitly establishes the responsibility of INDEC for methodological co-ordination across the NSS, which is confirmed in Section 1 of the Order 3110/1970: “The statistical services of all national, provincial and local public entities –centralized and decentralized administration and state-owned corporations– shall fulfil the responsibilities assigned to them by the National Institute of Statistics and Censuses, which is in charge of managing the Annual Program of Statistics, with a view to complying with such Program”.

115. Co-ordination has recently been reinforced by Administrative Decision 305/2017 which created a National Directorate of the National Statistical System and provided for its supervision of six INDEC regional offices covering the whole country, and the Resolution 141/2018. The regional offices should improve oversight and monitoring of the statistical activities carried out by the provinces’ statistical bodies. As of mid-2018, three offices have already been established (Northwest and Northeast Argentina, and Patagonia). Due to budget restrictions in 2018 and 2019, the opening of other three regional offices (Greater Buenos Aires, Pampeana and Cuyo) had to be rescheduled to 2020.

116. Biennial national plenary meetings with Provincial Statistics Offices have also been organised. These have discussed topics including confidentiality, open data, anonymisation, statistical best practice (including information dissemination), quality management processes and certification. The next plenary meeting is planned for the end of 2018.

117. INDEC’s Statistical Services and Operations Survey and the resulting Register of statistical operations mentioned under Recommendation 9, as well as its Annual Program of Statistics and Censuses

<sup>23</sup> <http://servicios.infoleg.gob.ar/infolegInternet/anexos/95000-99999/99689/texact.htm>

are further means of co-ordinating NSS activities. It also promotes the harmonisation of official statistics and their international comparability through a variety of other tools, viz:

- i. Guidelines for improving statistical operations
- ii. Training activities
- iii. Agreements with Provinces
- iv. Agreements with Ministries
- v. Technical assistance to other departments and provincial statistical offices, especially on database anonymization and enforcing statistical confidentiality
- vi. Annual Statistical Yearbook publication, bringing together statistics produced by the entities of the NSS.

118. It would be advisable for new statistical legislation to spell out clearly the responsibilities of INDEC with respect to the co-ordination of the Argentinian NSS, as well as the procedures and mechanisms required for an effective co-ordination. Revised statistical legislation, including subordinate provisions, would also need to explicitly define which entities should be co-ordinated (by listing the entities of the NSS), what would be co-ordinated (methods, classifications, quality...), and how co-ordination would be effected (tools).

119. Among measures already mentioned that would further promote co-ordination are the elaboration of a code of practice to apply across the NSS and the creation of a permanent advisory council which might validate a national statistics plan. The continuing roll-out of the six Regional Offices should also make a major contribution to co-ordination of activities with the provincial administrations.

***Recommendation 11. Commit to international co-operation. To this end, Adherents should:***

*i) encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organisations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice.*

*ii) provide the necessary data for the OECD's reporting system and analytical work, in compliance with international statistical standards as recognised by the OECD and preferably using the Statistical Data and Metadata eXchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs).*

120. INDEC co-operates actively with numerous international organisations and in various international statistical fora. It participates in the United Nations Statistical Commission and several of its working groups, as well as associated conferences, seminars and training workshops. Prominent examples include its participation in the Friends of the Chair Group on the Fundamental Principles of Official Statistics and in the High-Level Group for Partnership, Cooperation and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG- PCCB), including its working sub-group on a more efficient statistical system in the United Nations.

121. On 29-30 January 2018, Argentina hosted the G20 Thematic Workshop on Residential Property Price Indices (RPPIs) and Commercial Property Price Indices (CPPIs) in Buenos Aires. This was organised jointly by INDEC, the IMF, the BIS, the OECD and Eurostat to advance implementation of recommendations of the G20 Data Gaps Initiative. The event was held back-to-back with an International Statistical Conference to celebrate the fiftieth anniversary of INDEC.

122. The IMF has assisted and co-operated with INDEC in the revision of the methodology of the Consumer Price Index (CPI) and the National Accounts. Between late January and early February 2018, an



IMF course on Statistics of Balance of Payments and International Investment Position was held in Buenos Aires.

123. In the regional sphere, INDEC participates in the annual meetings of the Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean (SCA-ECLAC), in specific conferences and in 12 of the 15 working groups of the SCA, up from 7 working groups in 2015. INDEC is also active in the Statistical Co-ordination Group (Spanish acronym GCE) which is elaborating regional indicators and building capacity to measure progress towards the 2030 Agenda in Latin America and the Caribbean. INDEC also participates in the twice-yearly Specialised Statistical Meetings of MERCOSUR (Spanish acronym REES) and its 5 work groups, of which it co-ordinates 2.

124. Bilateral co-operation on statistical processes organisational is being pursued with Mercosur countries (especially Brazil), Canada, Chile, China, Italy, Mexico, the Netherlands and Russia. Following a 2017 memorandum of understanding with the Netherlands statistical authority CBS focusing on dissemination, IT and big data, Argentina signed two further important bilateral collaboration agreements in March 2018: with the European Statistical Agency (Eurostat) on statistical planning, a quality framework, dissemination of statistics and exchange of data (SDMX); and with National Institute of Statistics and Geography of Mexico (INEGI) on human resource management and ICT for large statistical operations. In June 2018 it signed an agreement with the Italian National Institute for Statistics (ISTAT) to co-operate on modernisation, NSS co-ordination, integration of data sources and statistical planning.

125. Within the framework of the Argentine Fund for South-South and Triangular Cooperation (FOAR), INDEC undertook a two-year collaboration with the Honduras National Statistics Institute. Eight technical missions were carried out with the aim to generate price and quantities indices of foreign trade in Honduras by the end of 2018. In addition, INDEC provided co-operation to Ecuador's Central Bank regarding national accounts and to Guatemala related to gender violence records (RUCVM).

126. Argentina's rapidly increased engagement with international processes has raised its profile in the global statistical community. INDEC co-chaired the Programming Committee of the First World Data Forum held in Cape Town in January 2017 and its Director-General has presented at the CSSP, at the Conference of the International Association for Official Statistics and at major regional meetings on official statistics. Other INDEC staff participated in the July 2017 Meeting of the International Statistical Institute in Morocco.

127. At present, Argentina does not use SDMX for the regular transmission of data and metadata to international organisations, including the OECD, although this is under consideration, as noted against Recommendation 9.

**Recommendation 12.** *Encourage exploring innovative methods as well as new and alternative data sources as inputs for official statistics, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector), or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using modern information technologies and the need to maintain the quality of official statistics.*

128. INDEC is keen to explore innovative methods for the production of statistics, even if its priority in recent years has been to restore the credibility of existing official statistics by reviewing processes and outputs.

129. One of INDEC's major current projects is to develop capacities for processing geospatial data. Its geostatistics unit maintains close co-operation with the main official entities involved in the development of geospatial infrastructure of the territorial units within the country. INDEC thus co-operates with the Ministry of Modernization and with other official and private bodies (Military Graphics Institute, IDERA-Spatial Data



Infrastructure of the Argentine Republic, Post Office) that use geographical bases to define a single standard guideline at a national level. INDEC has been training staff in management of cartographic documents and geospatial data, and participating in the National Disaster Risk Management system, which combines statistical and geospatial information in thematic maps.

130. In preparation for the 2018 National Agriculture Census and the 2020 National Census of Population and Dwellings, INDEC developed cartographic documents, collected geospatial data in field, implemented automated segmentation and disseminated information; and signed an agreement with the Argentine National Space Commission (CONAE) to access information from satellite images.

131. INDEC is also developing a joint policy with other national and international organisations to organise, develop and implement an infrastructure for using alternative data sources as inputs for official statistics. While there is no general policy on the use of big data, beyond the provisions in the law concerning data protection, INDEC is working on the development of an appropriate IT infrastructure to ensure that the quality of statistics is maintained when new sources of input are introduced into the production of official statistics.

132. The process of modernising its IT infrastructure has itself involved INDEC in significant innovation, including developing common platforms to improve information exchange (e.g. with the Central Bank). As of mid-2018, INDEC's Informatics Directorate was mapping the requirements of directorates with a view to the creation of a data lake to pool the information from current and historical statistical operations.

### ***1.3 Summary of Recommendations on the legal and institutional framework***

1. Argentina needs to modernise its legal and institutional framework for statistics by passing a new statistical law, supplemented with corresponding implementation orders. (For details see under Recommendation 1 above)
2. The new law should upgrade the institutional status of INDEC to that of an autonomous body with legal personality and control over its own assets. INDEC should be empowered to control its financial, human and technical resources. (Also Recommendation 1)
3. The choice of a future institutional structure for the national statistical system is a political one to be taken by the Argentinian authorities. However, the composition, mandate and functions of the proposed for a new National Statistical Council, as they appeared in a draft law presented to the review team in May 2019, appeared to strike a good balance between protecting the independence of the statistical authorities on the one hand, and allowing for an appropriate level of strategic advice on the other. It may also be useful to create a formal channel for input from parliament on statistical matters. (Recommendation 2)
4. The head of INDEC should possess the exclusive authority to decide on statistical methods and dissemination, and the terms of his or her appointment should limit the possible grounds for dismissal and circumscribe the authority for such dismissal in ways that protect him or her from political interference in the exercise of his or her professional responsibilities. Argentina should consider adopting a fixed term for the Head of INDEC, independent of the term of the government or legislature, and developing a transparent selection process to bolster public trust in the office-holder. (Recommendation 2)
5. In revising its legal infrastructure for statistics, Argentina should ensure that recruitment of managerial and senior technical staff is based solely on their professional competence, and that all staff are protected against politically-motivated dismissals. (Recommendation 2)
6. INDEC's budget will need to be maintained at an elevated level for several years to permit continued progress in raising the professional level and extending the skills of its staff, restoring and updating statistical infrastructure, improving access to administrative data, upgrading equipment and accommodation, and reinforcing co-ordination. (Recommendation 3)

7. INDEC is encouraged to continue its efforts to reinforce the protection of statistical secrecy. The new legislative framework should ensure that existing protections are maintained, and updated where necessary to reflect IT developments and the increasing automation and digitalisation of information. (Recommendation 4)
8. The new statistical law should clarify and reinforce access to administrative data for statistical purposes, and specific technological, administrative and organisational provisions should be implemented to protect the security and integrity of statistical databases. (Recommendation 5)
9. The new statistical law should contain provisions to ensure impartiality, objectivity and transparency in the development and presentation of Argentina's official statistics. (Recommendation 6)
10. The statistical legislation should reinforce INDEC's authority by specific provisions empowering it to establish and maintain statistical norms as well as the main tools for the production and dissemination of official statistics. (Recommendation 7)
11. INDEC should continue to work towards a comprehensive quality management system, or Quality Assurance Framework for official statistics, develop an updated revision policy, maintain its advance release calendar, develop a Code of Practice for official statistics, and standardise its metadata, including in English for important methodological information. (Recommendation 8)
12. The legal framework should encourage appropriate mechanisms to reinforce users' involvement, for example, by facilitating user feedback through regular satisfaction surveys, participation of users in more formal consultation mechanisms, and development of guidelines for identifying user needs. (Recommendation 8)
13. While INDEC's recent progress in the communication and dissemination of information is excellent, the administrative orders relating to publications and information are antiquated and in need of review. INDEC will also need to work towards ensuring that the progress it has made in dissemination and communication is extended and consolidated throughout the rest of the NSS. (Recommendation 9)
14. It would be advisable for new statistical legislation to spell out clearly the responsibilities of INDEC with respect to the co-ordination of the Argentinian NSS, as well as the procedures and mechanisms required for an effective co-ordination. (Recommendation 10)

## CHAPTER 2. STATISTICAL INFRASTRUCTURE

### 1. Introduction

133. This chapter presents a review of the chief data collections, activities and services constituting the Argentinian statistical infrastructure, i.e. those activities, seen as horizontal across a statistical authority, which underpin the compilation of a broad range of its statistical collections. Some of these are touched upon in the other chapters of the review (in particular chapter 1 on the legal and institutional framework for official statistics, chapter 3 on national accounts statistics, chapter 5 on Structural Business and Demographic Statistics, chapter 11 on labour statistics, and chapter 13 on income distribution and poverty indicators).

134. This chapter covers the following statistical programmes:

- Population and housing census and population register
- International Standards and Classifications
- Economic Census
- Statistical business register
- Agricultural census.

135. Under the Argentinian law on statistics, INDEC has responsibility for all these programmes.

136. The chapter assesses the extent to which these elements of the Argentinian statistical infrastructure are in conformity with best policies and practices in place in OECD countries. It is the result of a fruitful co-operation between INDEC and the OECD Statistics and Data Directorate (SDD). INDEC provided extensive information through detailed questionnaires and during two fact-finding missions to Buenos Aires. SDD also used available information from the INDEC website.

### 2. Population, household and housing census, and population register

#### 2.1. Background

137. A population census is the comprehensive process of collecting, compiling, editing, analysing and disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country. A housing census is the total process of collecting, compiling, editing, analysing and disseminating statistical data pertaining, at a specified time, to all living quarters (as defined in the UN Principles and Recommendations for Population and Housing Censuses, Revision 2) and occupants in a country. In most countries, national statistical authorities organise these two censuses jointly.

138. A population and housing census plays an essential role in all elements of a national statistical system, being used as a benchmark for statistical compilation and as a sampling frame. In Argentina, the number of representatives for each province or local government in the Chamber of Deputies, the lower house of the Argentinian Congress, is determined by the population and housing census, in accordance with Article 45 of the National Constitution, and is updated after each census.

139. Censuses should aim to ensure that the topics they cover address the needs of all users (including, importantly, the entities of the national statistical system), taking into account cost-effectiveness and other considerations. This can be achieved by consulting users throughout, by incorporating measurable standards, and by adequately testing each stage of the process.

140. The last National Census of Population, Households, and Housing in Argentina was conducted on 27 October 2010 from 8 am to 6 pm (in Argentina, the population and housing census has usually been a de facto census conducted during a single day declared as public holiday). The 2010 census was the tenth national population census, the previous ones having been undertaken in 1869, 1895, 1914, 1947, 1960, 1970, 1980, 1991, and 2001. In 1990 and 2000, budget restrictions resulting from the economic and financial crises delayed the population and housing censuses for a year. The 2010 census was organised in the context of a breakdown in trust in the Argentinian official statistics following growing political pressures on INDEC since 2007.

## 2.2. Legal basis

141. In Argentina, Law 17622 of 1968 gives responsibility to INDEC to programme and conduct the national census of population, households and housing. Decree No. 3110 of 1970,<sup>24</sup> a regulatory provision of Law 17622, in its section 8, confirms INDEC's responsibility to organise the population and housing census, and specifies its modalities regarding programming, organisation, preparation of questionnaires and methodological guidelines, and publication of results.

142. Section 7 of Decree 3110 also establishes a maximum period of ten years between two successive population and housing censuses and specifies that censuses should be conducted in years ending with a zero:

*“National censuses shall be held as follows: (a) Censuses of population, family, and housing shall be decennial, in years ending with a “zero”; (b) Farming censuses shall be held quinquennially, in years ending in “two” and “seven” ; c) Economic censuses shall be held quinquennially, in years ending in “three” and “eight”.*

143. Law 17622 subjects to its provisions the official statistical activities and the conduct of censuses in the national territory (sections 1 and 2), investing in INDEC the power and competency of head of the National Statistical System created by the same law. Sections 5 to 7 assign to INDEC detailed responsibilities for preparing the annual programme for statistics and censuses, and drawing up a budget for receipts and expenditures to accomplish this programme.

144. Information provided by the population during the census is protected under Law 17622, section 10:

145. “The information provided to bodies belonging to the National Statistical System, in compliance with this Law, will be strictly confidential and shall only be utilised for statistical purposes. The data shall be provided and published solely in compilations, in a way that cannot infringe trade or proprietary confidentiality, or enable identification of the persons or bodies involved. Registration data that shall be exempt from statistical confidentiality are: Name or business name, address and branch of activity”.

## 2.3. Definition and organisation

146. INDEC exercises its responsibility for the organisation of the National Census of Population, Households, and Housing through its National Directorate of Social and Population Statistics.

147. The functional organization of the census enumeration is structured as follows: at the national level, the High Council, the Operations Committee, and the Technical Committee of INDEC are the highest official census levels. At the provincial level, the Provincial Census Committee and the Provincial Technical Committee are responsible for the organisation and the coordination of the census activities and for overseeing the sub-provincial levels, i.e. the department, district, and commune levels. Each provincial government issues a decree of adherence to the national census decree and creates its provincial census

<sup>24</sup> <https://www.indec.gob.ar/ftp/documentos/dec3110.htm>

committee. Argentina being highly decentralised, with subnational governments playing a major role in designing and financing public policies, close co-operation between the various entities responsible for the organisation of the census is essential and their respective roles and responsibilities for coordination need clear legal definition.

148. The use of a single-day enumeration period might mitigate difficulties arising from people moving over the course of an extended enumeration period. However, single-day enumerations require a large number of interviewers (584,785 in 2010) and their effective supervision presents challenges, in particular in a highly decentralised context. Moreover, errors could be more frequent and the content of the census might need to be limited.

149. In 1960, 1970 and 1980, interviewers were selected mostly from the educational system (teachers) and they performed their duties as part of their role as public servants. In 1991, 2001 and 2010, monetary compensations were introduced for interviewers who were recruited from a broader range of human resources, including students and volunteers.

150. From 1960 to 1991, optical mark reading (OMR) was used to capture information from census forms. In 2001 and 2010, INDEC introduced a faster and more flexible system of intelligent character recognition (ICR) allowing interpretation of text or numbers in open questions.

151. INDEC intends to organise the next national census of population, households and dwellings in 2020, in accordance with the national legislation on statistics and the recommendation of the UN Statistical Commission,<sup>25</sup> and to implement the international standards in the Principles and Recommendations for Population and Housing Census (Revision 3, United Nations, New York, 2017),<sup>26</sup> as far as possible, as well as the guidelines of the 2018-2019 working groups of the Statistical Conference of the Americas serviced by the Latin American and Caribbean Demographic Centre (CELADE) of the Economic Commission for Latin America and Caribbean (ECLAC).<sup>27</sup> However, the results and conclusions of the First Pilot Survey, implemented in 2017, confirmed that some of these changes could not be implemented for the 2020 National Population Census, for example:

- Extension of the enumeration period from one to 16 successive days including 3 weekends; and,
- Introduction of the concept of usual residence for counting the population, i.e. the place where the person lives at the time of the census, has been living for some time (to be defined) before the census, and intends to live for some time (to be defined) after the census.

152. Instead, the analysis of the First Pilot Survey results recommended the use of a single-day enumeration period to mitigate difficulties arising from people moving over the course of an extended enumeration period. However, single-day enumerations require a large number of interviewers (about 650,000) and their effective supervision needs to be implemented with a contingency plan designed in advance to reduce enumeration errors. INDEC decided to adopt this approach and to conduct a de facto census in 2020, that will take place on a single day (probably Wednesday, 24 October) declared as public holiday. Collection will be by paper forms and intelligent character recognition (ICR).

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<sup>25</sup> <https://unstats.un.org/unsd/statcom/48th-session/documents/2017-19-DemographicStats-S.pdf>

<sup>26</sup> [https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles\\_and\\_Recommendations/Population-and-Housing-Censuses/Series\\_M67rev3-E.pdf](https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles_and_Recommendations/Population-and-Housing-Censuses/Series_M67rev3-E.pdf)

<sup>27</sup> <https://www.cepal.org/es/publications/type/conferencia-estadistica-americas/grupos-trabajo-2018-2019>

## 2.4. Coverage

153. National censuses of population, households and housing in Argentina cover the whole territory, including all rural and urban areas. The population coverage comprises all the population in private and collective households.

154. As already noted, in Argentina, national population censuses have been de facto censuses conducted during a single day via direct interviews in dwellings. The de facto population consists in all persons physically present in the dwelling at the reference date (or present at the place on census night), whether or not they are usual residents.

155. The enumeration units for the 2010 census were defined as dwellings (individual and collective), households, and individuals (including persons living in streets).

156. Argentina produces census data through a traditional survey-base method without administrative data, or through a combination of sources. While censuses conducted in 1960, 1970 and 2001 were conducted through a single questionnaire, two questionnaires were used in 1980, 1991, and 2010: a basic form and an extended form applied to a probabilistic sample of 10% of dwellings in localities with more than 50 000 population and applied to all the dwellings in the localities with less than 50 000 population. In 2010, the basic questionnaire included questions on the socio-demographic structure of the population (sex, age, education level, basic characteristics of the dwelling, activity of persons, etc.), and the expanded questionnaire contained sections on housing characteristics, migration, fertility, social security and health coverage, employment, and information and communications technologies. Additional questions on topics related to specific populations (indigenous communities, people with permanent disabilities, persons of African descent) were also introduced in 2010 while other specific questionnaires were developed for collective dwellings.

157. According to the 2010 census, the Argentinian population amounted to 40,117,096, comprising 19,523,766 men (48.7%) and 20,593,330 women (51.3%), living in 13,835,751 dwellings.

158. A post-census analysis carried out by INDEC in 2016 identified serious shortcomings and estimated the proportion of unexplained replications at 1.1%, heterogeneously distributed by department/district/commune in the provincial databases. The officially recognised omission rate had been 1.99% (compared to 2.75% in 2001), with a non-coverage rate of 2.44% for male (compared to 3.31% in 2001) and 1.55% for female (compared to 2.20% in 2001), with significant differences across provinces. INDEC brought the replication cases to the attention of judicial authorities but decided to use data from the 2010 National Population and Housing Census in some of its sampling design activities because there is no feasible alternative.

159. Users have been warned, based on INDEC's 2016 coverage assessment, that the estimates for the following jurisdictions should be interpreted with caution: Autonomous City of Buenos Aires, Provinces of Buenos Aires, Corrientes, Formosa, Jujuy, Mendoza, Salta, Santa Cruz, Santiago del Estero and Tierra del Fuego, Antártida and Islas del Atlántico Sur.

## 2.5. Compliance

160. Argentina broadly follows the principles and recommendations for population and housing censuses of the United Nations: for the 2010 census using its Principles and Recommendations for Population and Housing Censuses, Revision 2.<sup>28</sup>

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[https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles\\_and\\_Recommendations/Population-and-Housing-Censuses/Series\\_M67Rev2-E.pdf](https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles_and_Recommendations/Population-and-Housing-Censuses/Series_M67Rev2-E.pdf)

161. The national census of population, households and housing is based on national classifications in most respects, adapted from international classifications. INDEC uses its National Classification of Occupations<sup>29</sup> (CNO) and Classification of Activities for Sociodemographic Surveys<sup>30</sup> (CAES MERCOSUR), adapted from the International Standard Industrial Classification of all Economic Activities (ISIC), and implemented in the Southern Common Market countries<sup>31</sup> (MERCOSUR), as well as a national adaptation of the International Standard Classification of Education (ISCED).

## 2.6. Dissemination

162. Census results are disseminated via different channels and in a wide variety of formats in accordance with the dissemination policy and communication plan established by INDEC. The latter includes extensive dissemination of data and metadata, through a multimedia communication platform accessible from the INDEC's website.<sup>32</sup> Official bodies, social organisations, trade unions, associations, universities, public utility enterprises and supermarkets participate in the census dissemination efforts, via their institutional communication platforms.

163. Dissemination formats include Excel tables,<sup>33</sup> and graphs that were sent to social organisations, provinces, municipalities, primary schools throughout the country and public enterprises. Users may also access thematic maps<sup>34</sup> or customise tables from the limited anonymised databases available on the website, using the Data Recovery for Minor Geographic Areas software (REDATAM)<sup>35</sup> developed by CELADE.

164. Awareness campaigns were developed in conjunction with social organisations representing indigenous peoples, persons of African descent, persons with permanent disabilities and sexual diversity. INDEC programmed the implementation of a staged dissemination strategy for mass media, community and small and medium enterprise media, including printed and audio-visual material, meetings and conferences. The Institute also coordinated with the National Media Secretariat an intensive mass-media advertising throughout the country, in public spaces and including non-traditional advertising.

165. Based on the results of the 2010 census, INDEC developed and disseminated<sup>36</sup> national and provincial population projections by sex, and by five-year age groups until the year 2040, using the program RUPEX, developed by the US Census Bureau in 2001.<sup>37</sup> The base year data arise from a demographic

<sup>29</sup> [https://www.indec.gov.ar/ftp/cuadros/menusuperior/eph/EPHcontinua\\_CNO2001\\_reducido\\_09.pdf](https://www.indec.gov.ar/ftp/cuadros/menusuperior/eph/EPHcontinua_CNO2001_reducido_09.pdf)

<sup>30</sup> [https://www.indec.gov.ar/ftp/cuadros/menusuperior/eph/caes\\_mercosur\\_1.0.pdf](https://www.indec.gov.ar/ftp/cuadros/menusuperior/eph/caes_mercosur_1.0.pdf)

<sup>31</sup> Argentina, Brazil, Paraguay, Uruguay, Venezuela (suspended), Bolivia (in the process of accession). Associates include Chile, Colombia, Ecuador, Guyana, Peru and Surinam.

<sup>32</sup> [https://www.indec.gov.ar/micro\\_sitios/webcenso/publicados.asp](https://www.indec.gov.ar/micro_sitios/webcenso/publicados.asp) and:

[https://www.indec.gov.ar/nivel4\\_default.asp?id\\_tema\\_1=2&id\\_tema\\_2=41&id\\_tema\\_3=135](https://www.indec.gov.ar/nivel4_default.asp?id_tema_1=2&id_tema_2=41&id_tema_3=135)

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[https://www.indec.gov.ar/censos\\_total\\_pais.asp?id\\_tema\\_1=2&id\\_tema\\_2=41&id\\_tema\\_3=135&t=0&s=0&c=2010](https://www.indec.gov.ar/censos_total_pais.asp?id_tema_1=2&id_tema_2=41&id_tema_3=135&t=0&s=0&c=2010)

<sup>34</sup> [https://sig.indec.gov.ar/censo2010/?\\_ga=2.210034451.70145843.1523899219-1783700755.1508266892](https://sig.indec.gov.ar/censo2010/?_ga=2.210034451.70145843.1523899219-1783700755.1508266892)

<sup>35</sup>

[https://redatam.indec.gov.ar/argbin/RpWebEngine.exe/PortalAction?&MODE=MAIN&BASE=CPV2010B&MAIN=WebServerMain.inl&\\_ga=2.210277267.70145843.1523899219-1783700755.1508266892](https://redatam.indec.gov.ar/argbin/RpWebEngine.exe/PortalAction?&MODE=MAIN&BASE=CPV2010B&MAIN=WebServerMain.inl&_ga=2.210277267.70145843.1523899219-1783700755.1508266892)

<sup>36</sup> UNECE provides guidelines on communicating population projections: <https://www.unece.org/fileadmin/DAM/stats/publications/2018/ECECESSTAT20181.pdf>

<sup>37</sup> For the whole country, by sex and five-year age groups (2010-2040) – *Serie Análisis Demográfico* Nro. 35 (ISBN 978-950-896-439-7)

assessment, and the year-to-year projections are estimated according to the population growth components method, by projecting each determinant of demographic dynamics (mortality, fertility, and international migrations) independently.<sup>38</sup>

166. Small-area population projections (departments) were also made available up to the year 2025.<sup>39</sup> The population estimates are calculated based on a mathematical method that combines a logistic function to extrapolate the proportion that represents the population of the small area with respect to the population of the greater area and the AiBi method<sup>40</sup> to estimate the relative increase of the minor areas as part of the increase of the greater area.

### 3. Statistical Population Register

167. Over the course of this review, INDEC was exploring the feasibility of developing a statistical population register based on information available in administrative sources. The project builds on a 2013 joint agreement between INDEC's National Directorate of Social and Population Statistics, Directorate of Population Statistics and Directorate of Sector Statistics on the one hand, and the National System for Tax and Social Identification (SINTyS) at the National Council for Coordination of Social Policies (CNPS) on the other. The project would be in three stages: (i) establish technical co-operation to improve the methodologies and quality of statistics used in the design of social programmes and policies; (ii) create a co-ordinating committee including members of INDEC and CNPS; (iii) organise, plan, and control the processes and development of statistics.

168. The SINTyS database already exists and preliminary results are checked with available projections at the province level. However, the current statistical legislation does not allow INDEC full access to this information. The current cooperation between INDEC and the CNPS aims at developing processes for the identification of persons through their ID number or CUIT (Single Tax Identification Code, attributed by the Federal Administration of Public Revenue, AFIP) number, name and surname, sex, birth date and address based on information in the following administrative registers:

- AFIP register: created in 1997 by AFIP's General Customs Directorate, General Tax Directorate and General Directorate of Social Security Resources, and the Ministry of Economy (Decree 678/1997)
- Election register: National Elections Directorate, Ministry of Interior, Public Works and Housing (Decree 682/2010)
- Citizens register of RENAPER: National Registry, Ministry of Interior, Public Works and Housing (Law 13482/1948)
- Social works register (POS): National Superintendency of Health Services, Ministry of Health (Executive Decree 1615/1996)
- Register of users of public services:
  - ENRE: National Electricity Regulating Entity (Law 24065/1993)
  - ENARGAS: National Gas Regulating Agency (Law 24076/1992)

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<sup>38</sup> For each province, by sex and five year age group (2010-2040) – *Serie Análisis Demográfico* Nro. 36. (ISBN 978-950-896-440-3)

<sup>39</sup> For departments by sex (2010-2025) – *Serie Análisis Demográfico* Nro. 38 (ISBN 978-950-896-447-2)

<sup>40</sup> Madeira, J. L. y Simões, C. C. da S. (1972). *Estimaciones preliminares de la población urbana y rural según las Unidades de la Federación de 1960-1980 a través de una nueva metodología*. Río de Janeiro: IBGE, mimeo.



### ***Overall assessment and recommendations***

169. The successful organisation by INDEC of the next national census of population, households and housing in 2020 is essential to ensure the future quality of the Argentinian official statistics, and should be considered as a priority in order to refresh the basis of detailed information at national and sub-national levels, which now dates from 2010 and 2001. To this end, the current statistical legislation should at a minimum be amended to improve the protection of INDEC and other producers of official statistics against political pressure, ensure INDEC's right to access administrative data for statistical purposes, and reinforce INDEC's authority to require respondents to complete the census questionnaires and to coordinate the organisation of the census at the national and provincial levels.

170. As mentioned above in chapter 1, a quality management system would contribute greatly to improving the quality of statistical processes and outputs. In the case of the census of population, households and housing, planning for post-census analysis and enumeration surveys as well as data validation procedures is strongly recommended. Considering the large number of collectors and the decentralised Argentinian statistical system, the accuracy of data collected should be systematically analysed, for example by checking census data with administrative data or other available information to avoid sampling and non-sampling errors resulting from collection processes.

171. In order to reinforce trust in official results, in particular after the shortcomings identified in the 2010 census results, INDEC is strongly encouraged to provide clear, detailed and transparent information on data collection, data processing and data validation to users, and to develop strategies for further involving the various categories of users in census activities.

172. The current development of a statistical population register based on administrative sources is highly encouraged. Steps start in 2019 with the constitution of a database of urban spots (*Archivo domicilios de la Republica Argentina* ADRA its acronym in Spanish, second test phase 8 September 2019) and an experimental census is planned in March 2020. These developments will support the progressive move towards the increasing use of administrative data in the 2030 census in 2030.

## **4. International Standards and Classifications**

### ***4.1. Background***

173. International classifications and their appropriate use are vital to ensure the comparability and improve the quality of data at both the national and international level. Adhering to international standards and being able to implement new classifications while maintaining quality, series length, comparability, etc. are critical for the national statistical system.

174. The OECD is a large collector of national data, across a vast array of subject areas and statistical fields. For this body of statistics to be coherent and useful at the international level, international standards and classifications must be consistently observed.

175. In Argentina, the law on statistics explicitly establishes the responsibility of INDEC for ensuring the implementation of international standards and classifications throughout the whole national statistical system. According to section 9 of Law 17622: "For the purposes of performing the tasks comprising the annual program or the statistical plans prepared by the National Institute of Statistics and Census, the central and peripheral offices shall operate under the INDEC's regulatory provisions, and shall use the methods, definitions, forms, cartography, classifications, formulas and all other technical provisions or regulations established by INDEC for gathering, producing, analysing and publishing statistics and censuses".

176. In addition, specific legal dispositions/resolutions have been adopted for the implementation throughout the national statistical system of classifications adapted or developed by INDEC, as for example Disposition 017, issued on 22 December 1999 for the implementation of the ClaNAE 1997 classification; by Disposition 825, issued on 21 December 2010 for the implementation of ClaNAE 2010; and Resolution 2018-73-APN-INDEC#MHA for updating the CNO 2017 classification.

177. The Coordinating Unit of Classifications and Nomenclatures (CCN) of the National Directorate of Statistical Methodology of INDEC is responsible for the harmonisation and standardisation of the classifications used in the production of all official statistics disseminated by the national statistical system. To this end, the CCN:

- either adopts an international classification with its original structure or adapts it conceptually, methodologically or functionally to national needs or specificities,
- updates and/or revises classifications, and
- ensures that correspondence tables for the different classifications and for different versions of the same classification are made available and updated.

178. In addition to the CCN, the Commission on Classifications for Statistical Use of INDEC, composed of all the national directorates, discusses the evaluation and appropriateness of possible modifications in the classifications.

179. INDEC *adopted* the Classification for the Purposes of Non-Profit Institutions Serving Households (COPNI), Central Product Classification (CPC Rev.2), International Standard Classification of Education (ISCED), International Classification of Diseases (ICD), Classification of Institutional Sectors (CIS), Classification of the Functions of Government (COFOG), Standard International Trade Classification (SITC), Extended Balance of Payments Services classification (EBOPS 2010), International Classification of Status in Employment (ICSE), and Harmonised System in 1991 to classify exports, and in 1992 to classify imports.

180. INDEC *adapted* the International Standard Industrial Classification of all Economic Activities (ISIC Rev.4), the Classification of Broad Economic Categories (GCE), and the Classification of Individual Consumption According to Purpose (COICOP), and intends to adapt the Central Product Classification (CPC version 2).

181. Table 2.1 below presents the various classifications either adopted or adapted for the production of official statistics in Argentina.

**Table 2.1. International classifications used in the production of the Argentinian official statistics**

	<b>Adoption status</b>	<b>Version</b>	<b>Plans for adoption</b>	<b>National classification and correspondence table</b>
COICOP	Adapted	1999		The international version was adapted by adding a fifth digit to indicate a subclass or family, then 3 more digits to disaggregate individual expenditures.
COPNI	Adopted	1999		
ISIC	Adapted	Rev. 3, 3.1 and Rev. 4		Version 3 was adapted, giving rise to ClaNAE 97; Rev. 3.1 to ClaNAE 2004; and Rev. 4 to ClaNAE 2010. One more digit was added to the international classification, making a 5-digit classification. There is also a version for socio-demographic

				surveys, in collaboration with MERCOSUR countries, the CAES, with 4 digits; thus, a higher aggregation than ClaNAE. The CAES corresponds to ISIC's first 2 digits.
CPC	Adopted	CPC version 1.0 CPC version 2.0 CPC version 2.1		
HS	Adopted	2012 and 2017		
ISCO	Not adopted			INDEC has used the National Classification of Occupations (CNO) since 1991. It includes correspondence tables with the ISCO 88 and 08. In both cases, the relation is to the first two digits of the ILO classification.
ISCED	Adopted	2011		
ICD	Adopted	10		
CIS	Adopted			
COFOG	Adopted			
SITC	Adopted	Rev. 3 and Rev. 4		
EBOPS	Adopted	2010		
MIG	n.a.			
ICSE	Adopted	1993		

*COICOP: Classification of Individual Consumption by Purpose*

182. COICOP is currently in the process of being adapted with the addition of three digits reflecting national specifications for expenditure and consumption in Argentina. This national adaptation will be used following the development of the new goods and services basket from the National Household Expenditure Survey (EnGHo), currently in its field stages. Until that time, the Consumer Price Index (CPI) will continue to use the international COICOP. A correspondence table is being prepared between Argentina's COICOP and the Central Product Classification (CPC 2.0).

*ISIC: International Standard Industrial Classification of All Economic Activities*

183. In its economic surveys, Argentina uses the National Classification of Economic Activities (ClaNAE). This is a national adaptation of the ISIC first developed in 1997 that adjusts that classification to national specificities. Its structure begins with the section (letters) and the first 4 digits of the international version, and then adds a fifth digit to incorporate national specifications. Correspondence tables are available with successive editions of the international classification: ClaNAE 1997 with ISIC Rev. 3; ClaNAE 2004 with ISIC Rev. 3.1 and, lastly, ClaNAE 2010 with ISIC Rev. 4, where, however, the algorithm does not work well beyond the third digit.

184. Since 2000, INDEC has also used the Classification of Economic Activities for Sociodemographic Surveys (CAES), developed as a common classification for the MERCOSUR countries. This instrument is more aggregated than the ClaNAE and ISIC, since the units of analysis are households. CAES is used for the Permanent Household Survey (PHS), the population censuses and the National Household Expenditure

Survey (EnGHo). CAES 2000 corresponded to ClaNAE 97 and ISIC Rev. 3; and CAES 1.0 corresponds to ClaNAE 2010 and ISIC Rev 4.

*ISCO: International Standard Classification of Occupations*

185. Since 1991, INDEC has used its National Classification of Occupations (CNO). While the structure of the CNO classification differs from international standards, and in particular from the ISCO classification, the analytical dimensions of both classifications are equivalent.<sup>41</sup> The first version of the CNO classification, from 1991, had a three-digit structure and a correspondence table with the two digits of ISCO 88. A five-digit version corresponding to ISCO 2008 was implemented as of the 2001 National Population and Housing Census.<sup>42</sup> The CNO classification was last updated in 2017.

186. Table 2.2 below presents the various classifications used in the main statistical programs.

**Table 2.2. Statistical Programmes and Classification Use**

<b>Statistical programme</b>	<b>Classification</b>
Annual National Accounts	Not compiled separately from quarterly data
Quarterly National Accounts	ClaNAE 2004; CPC 1.1
Financial Accounts and Financial Balance Sheets	---
Public Sector Debt	---
Business Statistics	ISIC Rev. 3.1 and Rev. 4.0; CPC 2.0; ClaNAE 1997 and 2010
International Trade	SITC Rev. 4; ISIC Rev. 4; GCE; CPC 2.0; NALADISA 2012; ClaNAE 1997 and 2010; HS VI
International Trade in Services Statistics	ClaNAE 2010; CPC 2.0; EBOPS 2010;
Consumer Price Indices	ClaNAE 2010; COICOP
Producer Price Indices	ISIC; ClaNAE, CPC 1.0
Balance of Payments <sup>43</sup>	HS; EBOPS 2010; CPC 2.0; ClaNAE 2010,
Labour Force Statistics	CNO; CAES; ICSE
Population Statistics	CNO; CAES; ISCED 2011; ICD 1.0
Indexes of Production and Demand	ISIC; CPC 2.0
Business Tendency and Consumer Opinion Surveys	---

Table 2.2 reveals gaps in the use of important classifications in the main statistical programs, including:

- no use of COPNI to classify individual consumption expenditure by NPISHs;

<sup>41</sup> ISCO includes the following dimensions: "skill level" and "skill specialisation", which correlate to the CNO's "occupational qualification" and "occupational nature and technology", respectively.

<sup>42</sup> During the 2001 CNO update, the ILO, as the organisation responsible for the international version, was consulted to audit the work process and ensure its subsequent endorsement.

<sup>43</sup> BPM6 codes are used by INDEC for the codification of balance of payments statistics.

- no use of COFOG to classify individual and collective consumption expenditure by government. (which would depend on classification of government transactions to be provided by the Ministry of Finance).

#### **4.2. Overall assessment and recommendations**

187. In general, statistical classifications implemented in the Argentinian statistical system comply with international standards. According to the statistical legislation, INDEC is responsible for ensuring the creation, monitoring and dissemination of standards and classifications as well as enforcing compliance among entities of the national statistical system.

188. The decision whether to adopt or adapt international classifications is country-specific and depends on many factors (for example, the specific industries that justify further breakdown in the economy) and INDEC has made its decisions accordingly. However, whether adapted or adopted, it is important that standard international classifications are introduced in important statistical programmes where data are going to be required by international organisations, and this needs further development, for example for the national accounts and government accounts.

189. INDEC also needs to provide clear information and guidance for efficiently ensuring the appropriate implementation of classifications throughout the national statistical system, and avoiding modifications by other producers. This also includes the need to clearly inform the entities of the national statistical system about the transitions between successive versions, and to prepare, update and publicly disseminate correspondence tables for all adapted international classifications, along with some basic metadata in English on the underlying reasons for the differences.

190. INDEC is legally responsible for the compliance with international standards of the national statistical system as a whole, and it may need to have resort to specific regulations to ensure a better overall coordination and cooperation on the implementation of statistical classifications among NSS entities. In this context, there is room for improvement in the development of an integrated policy on classifications and a coordinated implementation of statistical classifications throughout the Argentinian NSS, which may require strengthened legal authority through amended legislation.

191. A medium-term objective for INDEC could be to develop an efficient tool for the coordination of classifications within the national statistical system and for consultation by users, as has been done in some OECD member countries. This tool may take the form of a catalogue of classifications that includes general information on national and international classifications (scope, structure, implementation date, originating authority, relevant legislation, etc.), as well as information on their use (responsible institution, purpose of introduction, area of use, availability, etc.). The maintenance of such catalogue by the national statistical office should be integrated in the statistical program of work.

## **5. Economic Census**

192. At the time of the review, one of INDEC's major projects was the National Economic Census 2020/2021, to be carried out in two stages. As already noted, Decree 3110/70 enjoins INDEC to perform an economic census every five years (years ending in 3 and 8).

193. The first stage, which is a census-based operation, consists of a digital enumeration of all resident economic agents that hold a unique tax code identifier (CUIT). This will allow INDEC to identify the economic agents according to economic and demographic features, so as to construct the sampling frame for the second stage surveys.

194. The second stage consists of a number of economic surveys, including structural economic surveys, sectoral surveys, distributive margin surveys and input-out surveys. These surveys will aim at non-financial and financial institutions, as well as non-profit institutions serving households.

195. The classification to be used in the census of economic statistical units will follow CLANAE2010- ISIC4 whereas the products either produced or consumed by these statistical units will follow CPC2.1.

### ***Stage 1***

196. The economic statistical units listing will be digital, and it will use a “Remote processing (TAD, Spanish acronym)” platform developed by the Ministry of Modernization. An email invitation will be sent to the economic agents’ fiscal email address to fill in a form they will access by using their CUIT number and password. The targeted population is the approximately 4.6 million active CUIT units.

197. Both pilot and experimental tests had been conducted by mid-2019.

#### *Pilot Test*

198. The pilot test was carried out in February 2019 with 300 agents who participate actively in different INDEC operations. The response rate was only 32%, due to problems including difficulties in entering the TAD, uncertainty about the entitlement of natural persons to fill the form on behalf of legal persons, and some misunderstandings of a few questions on the form.

#### *Experimental Test*

199. The problems found in the pilot test were addressed and remedial action taken. Then an experimental test was carried out in May 2019 to mimic the real operation on a small scale. This time 2000 legal agents chosen randomly from Tax authority records were asked to participate through their fiscal email address. Unfortunately the response rate dropped to 15%.

200. INDEC is currently examining the results of the experimental test so as to design a strategy to increase the response rate and to identify the launch date of the real operation.

### ***Stage 2***

201. The second stage will consist of a number of economic surveys.

202. The Structural Economic Survey (EEE, Spanish acronym) is aimed at a) all companies that are either multi-located with more than 50 employees or multi-activity with more than 20 employees, and b) a sample selection of other companies.

203. The questionnaires will collect information on all relevant economic flows and stocks required to build the integrated sequence of economic accounts, as well as detailed information on production and input disaggregated by product and distribution margins needed for the supply and use table.

## **6. Statistical Business Register**

### ***6.1. Background***

204. A business register is an essential tool for any national statistics authority as it provides a sampling frame for the economic surveys required for the compilation of core economic statistics such as GDP. The availability of a business register is therefore of fundamental importance to the production of reliable indicators of both short-term and structural economic developments.

205. The introduction of new statistical subject areas such as entrepreneurship has also increased the need for business registers and in effect turned the register into a data source in itself for statistics on business demographics (commonly known as Business Statistics). Additionally, globalisation has given rise to new requirements for information on the structure of enterprises. For example, there is a need for statistics on mergers and takeovers, restructuring, and the concentration of factors of production. Additionally, for many years there has been a rapid growth in the internationalisation of enterprises, with the increased formation of multinational companies adding greatly to data requirements.

206. In many countries there is increasing pressure to reduce the burden on enterprises of supplying information for statistical surveys. Yet at the same time, data users are constantly seeking improvements in the statistics currently provided and presenting new requirements. Rationalisation of the systems for collecting information can, to some extent, reconcile these conflicting needs. Good registers allow surveys to be distributed more effectively and economically among enterprises, and using the same information for different purposes can reduce the total amount that must be collected.

207. There is currently no statistical business register in Argentina, although in 1994, INDEC created the National Directory of Economic Units (DINUE). The main source for updating the DINUE was information collected through economic surveys and then the 2004/2005 National Economic Census (Annual Industrial Survey, Survey of the National System of Wholesale Prices, Survey of the Monthly Industrial Estimator, Survey of the Tracking Index of Construction Activity, Survey to Large Enterprises, Supermarket Survey, among others). In addition, cooperation agreements with the owners of administrative data, for example the Argentine Federal Administration of Public Revenue (AFIP), were established. However, the quality and comprehensiveness of the DINUE was questioned and the programme was discontinued in 2007, and the DINUE was never used as a statistical business register.

208. Since 2015, INDEC has resumed the DINUE project development under a new name: Statistical Register of Economic Units (REUE, Spanish acronym). The REUE was initially created based on outdated data provided by the Tax Authority 10 years ago, which included identification and localization variables, tax characterization, turnovers, employment and fiscal economic activity (based on ISIC4). The REUE feeds two registers: the Working Register (DT, Spanish acronym) and the Final Register (FT, Spanish acronym). The DT is the working environment; hence, it is dynamic and contains detailed information, which could be subject to statistical, fiscal or commercial confidentiality. Unlike the DT, the DF is a public access register with limited information to ensure that it does not breach any confidentiality requirements. At present, Microsoft SQL Server is used for the REUE data base structure, as well as for IT update and maintenance procedures, which were tested using micro data from the Tax Authority (AFIP) for the years 2006, 2007 and 2008.

209. Apart from fiscal information, INDEC also envisages enriching the REUE with the results of the economic census described above, which will be held in 2020/2021, as well as with the existing register of large enterprises described below, and other administrative sources, such as social security records. However, legal restrictions limit INDEC's access. For the REUE to be made operational, INDEC would need an MOU with the Tax Authority that would allow the database to be updated with the latest fiscal information.

210. Co-operation agreements currently in place enable exchange of tax information at the aggregate level, but not at the microdata level due to barriers in the tax law on use of AFIP data. The new statistical law should reinforce the right of INDEC to access tax data for statistical purposes. Other administrative registers, such as the Argentine Integrated Social Security System (SIPA) register, may also need to be included within the scope of the law to facilitate the creation and maintenance of a business register.

211. INDEC maintains a register of large enterprises based on the annual National Survey on Large Businesses (ENGE) covering the 500 largest Argentinian enterprises in areas including mining, manufacturing, supply of electricity and gas, supply of water, waste management and public sanitation, construction, trade, transport, post and storage, information and communication services, etc. The resulting

information covers a large share of the Argentinian economy, and data are available from 2012. INDEC intends to expand the number of economic units in this panel by including all enterprises with multiple activities and/or locations. INDEC then intends to include the remaining economic units by reclassifying and/or updating activity branches reported to AFIP by the enterprises. This project will be carried out in cooperation with AFIP and will improve the statistical infrastructure by laying the groundwork for the future business register and thus for the sampling frame for economic surveys.

## 6.2. Coverage

212. The list of variables considered by INDEC for the future statistical business register is:

- Single Enterprise Code,
- CUIT (single tax identification code)
- Business name
- Trade name
- Legal category
- Business address
- Type of address
- Postal code
- Email
- Website
- Telephone
- Number of employees
- Payroll
- Level of sales
- Main branch of activity (AFIP)
- Main branch of activity (INDEC re-categorization for statistical purposes)
- Secondary branch of activity (AFIP)
- Secondary branch of activity (INDEC re-categorization for statistical purposes)
- Main products from activity
- Number of outlets
- Addresses of outlets

213. The initial structure of the register will include the following units: (A) Enterprise, (B) Institutional Unit, (C) Enterprise group, (D) Unit of Main Activity, (E) Standard Production Unit. The choice of use of statistical units collected and maintained in a business register can have far-reaching consequences for international comparability. In this regard, countries are encouraged to use statistical units, which are directly linked to the descriptions given in the introduction to the International Standard Industrial Classification (ISIC) and the System of National Accounts. For example, Eurostat has identified by regulation the following statistical units that EU Member Statistics must maintain in their business registers:

- A. the enterprise;
- B. the institutional unit;
- C. the enterprise group;
- D. the kind-of-activity unit (KAU);
- E. the unit of homogeneous production (UHP);
- F. the local unit;
- G. the local kind-of-activity unit (local KAU); and
- H. the local unit of homogeneous production (local UHP).



214. In theory, business registers should record all enterprises and local units that are active in the national economy. This may not always be possible in practice, so for the purposes of international comparison it is desirable that the coverage of the business register should meet agreed standards, and the omission of any groups of units must involve an assessment of their economic importance.

### **6.3. Compliance**

215. INDEC intends to use the National Classification of Economic Activities (CIANAE), which corresponds to the classification ISIC Rev. 4 at 4-digit (see above) and to comply with Eurostat's *Business Registers Recommendations Manual* (2013), and UNECE's *Guidelines on Statistical Business Registers* (2015). National experiences provided by the Italian Statistical Institute (Istat), Statcan Canada, and Spain's INE, among others, would also be used as references.

### **6.4. Overall assessment of statistical business register and recommendations**

216. The absence of a statistical business register represents a major gap in the Argentinian statistical infrastructure and the development and maintenance of this tool will be a challenging task, particularly if the legal framework is not amended to reinforce INDEC's capacity to access to administrative data for statistical purposes. INDEC's role in creating and updating the statistical infrastructure for the whole national statistical system should also be reinforced legally, and the development and maintenance of a comprehensive statistical business register would significantly contribute to its capacity to fulfil this role. To this end, it is recommended that:

- INDEC should conduct the National Economic Census in order to refresh information on enterprises and to obtain basic economic information at the national and sub-national levels;
- The statistical business register should comply with internationally recommended concepts, definitions, technical recommendations and best practices for the creation, maintenance and ongoing improvement of such registers, including:
  - UN-ECLAC's *Compendium of Technical Recommendations and Best Practices for Preparing Directories of Enterprises and Establishments*, published in November 2013<sup>44</sup> and funded by the Regional Public Goods Program of the Inter-American Development Bank (IDB);
  - Eurostat's *Business registers; Recommendations manual*, 2010 edition; and
  - Decision 698 of the Andean Community of Nations (CAN).
- INDEC's capacity to access the most up-to-date administrative information and to cooperate with the owners of administrative sources to improve the quality of administrative records should be strengthened by specific legal provisions and appropriate agreements; and,
- INDEC should actively participate in international fora on statistical business registers, such as the meetings of the Wiesbaden Group on Business Registers.

## **7. Census of Agriculture**

### **7.1. Background**

217. A census of agriculture is a statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or a significant part of the country. It takes stock of the

<sup>44</sup> <http://www.cepal.org/deype/noticias/documentosdetrabajo/7/51327/LCL3707i.pdf>

agricultural sector in the country and provides a frame for future statistical surveys of agriculture. In this context, the Argentinian national agricultural censuses (CNAs) represent a key source of information for the national accounts, agriculture surveys, development of specific surveys by INDEC and other public agricultural entities, and estimates of variations in activity by the Ministry of Agriculture and other public entities.

218. Typical structural data collected in an agricultural census cover size of holdings, land tenure, land use, crop area harvested, irrigation, livestock numbers, labour and other agricultural inputs. Data are collected directly from agricultural holdings, but some community-level data may also be collected. A complete enumeration of all agricultural holdings will be carried out to obtain key aggregates, with sampling methods used to produce more detailed data. While the Food and Agriculture Organization (FAO) of the United Nations is the lead International Organisation for agricultural censuses, other International Organisations also require good quality agricultural data for their work, including especially the Trade and Agriculture Directorate of the OECD.

219. In Argentina, agriculture is a key economic sector, accounting for 5.7% of national GDP in 2017, and 17-18% if agribusiness and related services are included. The figure is more than 20% in some provinces, and the sector also accounts for a large part of total exports (64.4% in 2017). It is complex and heterogeneous, including large holdings accounting for a significant part of total production but also many small and medium holdings making smaller contributions. Livestock represents one of the main sub-sectors.

220. Major changes have occurred in the sector in recent years, with a growing separation between landowners and companies actually working the land; an increasing industrialisation within farms, including more sophisticated processes; and greater distances between farms and the places where subcontractors are located.

221. According to Decree No. 3110/1970 (sections 7 and 8), INDEC is responsible for the planning, organisation and management of the CNAs every five years, in years ending in “two” and “seven”. Fieldwork, however, is carried out by the statistical bureau (Dirección Provincial de Estadística, DPE) of each of the twenty-four provinces in accordance with agreements with INDEC. Funding needs to be provided in the national budget.

222. To conduct CNAs, INDEC establishes a Census Committee with representation from relevant ministries. This helps ensure coordination with the Ministry of Agro Industry (on content and links with sectoral statistics), the Ministry of Environment (on environmental issues), the National Institute of Agricultural Technology (on technological aspects), the Federal Agricultural Council (representing provincial ministries of agricultural activities), and several specific public bodies (National Viticulture Institute, National Tobacco Fund, etc.).

223. In Argentina, it is mandatory to respond to the Agricultural census (the non-response rate is very low at 0.8%).

224. The eleventh and most recent complete CNA was conducted in 2002 (enumeration took place from September to December 2002, data referring to the years 2001 and 2002) following those of 1888, 1895, 1908, 1914, 1937, 1947, 1952, 1960, 1969, and 1988, some of which were combined with population censuses (1895, 1914 and 1947). The twelfth agricultural census was organised in 2008 but significant coverage errors (under coverage was estimated at 12% to 15% of the whole country and up to 50% in the province of Corrientes and 35% in the province of Buenos Aires) prevented the results from being published and used.

225. INDEC began to prepare the 2018 CNA in early 2016 and the enumeration period was initially planned to take place from September to November 2018. Due to operational, climatic and other issues, the field operation had to be extended, and ended in March 2019. It was a territorial survey, covering more than 2.12 million hectares, using with traditional, face-to-face questionnaires, but all information was collected

digitally, using tablets already programmed with relevant territorial information. Results from the 2018 CNA are expected to be publicly released in September 2019.

## 7.2. Coverage

226. The 2018 CNA aimed to cover agricultural holdings defined as production units (Explotación Agropecuaria, EAPs) larger than 500m<sup>2</sup> under single management, i.e. sharing production equipment, labour force and unified direction in decisions and located in a single province. It covered the entire territory of Argentina, following the boundaries of the provincial jurisdictions. Own-use production is captured only where the productive plot is a market player. However, if the productive plot produces exclusively for own-use and it does not sell any product to the market, then its output is not included.

227. The efficiency of data collection was improved by using advanced technologies including digital cartography and new equipment to geo-reference agricultural holdings. Mobile devices used an application with three modules: i) a questionnaire module, ii) a digital cartography module, and iii) an administration module (including information on the survey-takers, supervisors, zone heads, assistants and coordinators; the operational design, collection, consolidation and analysis of data; and the subsequent publication). Provincial statistical offices developed the field operation by managing the census architecture, training, advertising, area frames, data collection, information recovery operations and submission procedures to INDEC.

228. The questionnaire, designed in cooperation with the Ministry of Agriculture, contained a geographical module delimiting EAPs and land for non-agricultural use, and six sections, as follows:

- Agriculture holder data and general EAP data
- Land use
- Agricultural practices
- Livestock production
- Capital goods: machinery and equipment
- Resident population of the EAP, permanent and temporary labour force.

229. An area frame of approximately 190 million hectares including 250-300 thousand holdings was used. It was covered by 3457 persons (24 provincial coordinators, 83 zone heads and their 83 assistants, 476 supervisors and 2791 data collectors).

230. The results of the 2008 CNA were released, in various formats (.xls and .pdf) on INDEC's website. The dissemination did not include microdata, maps or methodological information.

## 7.3. Compliance

231. The FAO's *A system of integrated agricultural censuses and surveys, Volume 1, World Programme for the Census of Agriculture 2010*, (FAO 2005) was the accepted international standard for undertaking agricultural censuses for the 2006-2015 round. INDEC, with the Ministry of Agriculture, established the methodology of the 2018 CNA in accordance with the FAO *World Programme for the Census of Agriculture 2020* (WPCA) methodology.<sup>45</sup>

232. The content of the questionnaire module in the 2018 CNA is drawn from the 2002 CNA and meets the international guidelines including the FAO recommendations in most respects.

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<sup>45</sup> FAO's *World Programme for the Census of Agriculture 2020* is now available : <http://www.fao.org/3/a-i4913e.pdf>

233. While the 1988 and 2002 agricultural censuses did not use the ISIC classification, INDEC informed the OECD that a reconciliation with it was possible. There are questions on the level of education achieved by the producer (classification within the ISCED). The crops surveyed can be classified by FAO's Indicative Crop Classification (ICC).<sup>46</sup> The labour force is classified according to the National Classification of Occupation (CNO), which can be compared with the ILO's ISCO.

234. INDEC organised a Technical mission, including observers from ten Latin American statistical agencies<sup>47</sup> and the FAO in December 2018.

#### **7.4. Overall assessment and recommendations**

235. Information provided by INDEC indicates that the agricultural census conducted in 2018 was broadly in line with international practice. However, the legal basis (Decree No. 3110/70) explicitly specifies that agricultural censuses must take place in years ending in two and seven. In this context, INDEC is encouraged to ensure that agricultural censuses are conducted every five years in the future.

236. INDEC is also encouraged to identify possibilities for increasing the use of administrative sources, using unique and common identifiers between the agricultural census and other administrative registers, and reinforcing the relationship with the economic census (common concepts; common classifications; common frames; linking data, data integration, etc.).

237. One area worth highlighting is the need to provide users with detailed information on the various quality checks arranged by INDEC to ensure that the agricultural census complies with the needs of a sound statistical infrastructure. In this domain, INDEC may wish to consider the possibility of conducting post-enumeration surveys as recommended by FAO, as well as ensuring that the agricultural census is fully integrated in the quality assurance framework currently under development.

238. Finally, INDEC is encouraged to disseminate key methodological information in English.

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<sup>46</sup> [http://www.fao.org/fileadmin/templates/ess/documents/world\\_census\\_of\\_agriculture/appendix3\\_r7.pdf](http://www.fao.org/fileadmin/templates/ess/documents/world_census_of_agriculture/appendix3_r7.pdf)

<sup>47</sup> INE Chile; IBGE Brazil ; DGEEC Paraguay ; INEI Peru ; INEC Ecuador ; DANE Colombia ; INEC Panama ; INEGI Mexico; ONE Dominican Republic ; Ministry of Livestock, Agriculture and Fisheries of Uruguay; as well as the Latin American School of Social Sciences (FLACSO) Chile.

## CHAPTER 3. NATIONAL ACCOUNTS AND PUBLIC SECTOR DEBT STATISTICS

### 1. Introduction

239. The objective of the OECD's National Accounts Statistics Programme is to disseminate a complete set of national accounts that are comparable between countries, analytically useful, timely and available for a period as long as possible.

240. This chapter covers: (1) non-financial accounts, (2) financial accounts and balance sheets, (3) public sector debt statistics and (4) supply-and-use tables.

241. The assessment presented in this chapter is based on the data and the very complete metadata (in English and in Spanish) provided by INDEC via the OECD questionnaires and the documentation obtained through the fact-finding mission. INDEC has been very helpful in actively contributing to the review process of national accounts. The documentation received is rich and appropriate.

### 2. Non-financial national accounts statistics

242. This section presents an overview of the non-financial national accounts statistics for Argentina. These are exclusively compiled quarterly, but in this section they are assessed against the scope of both the OECD's annual and quarterly national accounts data requirements.

243. Argentina's non-financial accounts are compiled in INDEC's National Accounts Directorate, which consists of a staff of 36 of which 29 are professional staff and 7 are non-professionals. The Directorate has two sub-divisions, one in charge of Production, Employment and Income and one in charge of Consumption, Investment and Foreign Trade.

#### 2.1. Coverage

244. Coverage of Argentinian data is assessed against the scope of the OECD's annual and quarterly national accounts data requirements as spelled out in the various tables. The OECD Annual and Quarterly National Accounts (ANA, QNA and QSA) databases contain data collected from all OECD member countries and some other major economies on the basis of a standardised questionnaire but with flexibility to accommodate countries' own definitions and classifications.

245. The annual and quarterly tables generally include the same information, the only difference being that most of the quarterly tables ask for both seasonally and non-seasonally adjusted data. Where this is the case, this will be highlighted in the text. Time series are expected to cover data from 1994 onwards for both annual and quarterly data.

246. The data requested cover the following domains:

- Table 0101: Gross value added at basic prices and GDP at market prices, current prices and volume; both seasonally and non-seasonally adjusted for quarterly data; ISIC 4/A10 breakdown of industry.
  - Non-seasonally adjusted series are available from 2004 Q1, both in current and constant prices. Seasonally adjusted series are only available in constant prices and is currently only available on a confidential basis. Data have been provided in line with ISIC 4, broken down into 10 industries by aggregating information compiled on the basis of ISIC Rev 3.1. As there is not always a direct link between categories in the two classifications, this may cause some small deviations from the ISIC Rev. 4 definitions (see 1.2.2).

- The tables transmitted to the OECD confirm that there are no statistical discrepancies between the three approaches of GDP.
- Table 0102: Gross domestic product (expenditure side): final consumption breakdown, gross capital breakdown, exports and imports of goods and services, current price and volume; both seasonally and non-seasonally adjusted for quarterly data; AN\_F6 breakdown for GFCF.
  - Non-seasonally adjusted data are available at current and constant prices from 2004 Q1 for the major expenditure components. Seasonally adjusted series are only available in constant prices. Information on the contributions of the expenditure component to GDP growth is lacking. Breakdowns for GFCF are available for most of the required series but no data are provided for investment in “ICT equipment” and “Other machinery and equipment + weapon systems”. Furthermore, no information is available on GFC component “acquisitions less disposals of valuables”. Finally, the detailed components for “final consumption expenditure of households and NPISH” (into the two sectors) and “final consumption of general government” (into individual and collective consumption) have not been made available.
- Table 0103: Gross domestic product (income side): compensation of employees in ISIC 4/A10 breakdown, current prices; both seasonally and non-seasonally adjusted for quarterly data.
  - Non-seasonally adjusted series in current prices are available from 2016 Q1 for the total of “compensation of employees”, “gross operating surplus and mixed income”, and “taxes on production and imports less subsidies”. Information on the components of compensation of employees, i.e. “wages and salaries” and “employers” social contributions” is not available, and neither is separate information on “taxes on production and imports” and “subsidies on production and imports”. The information for the series that are provided in the questionnaires is in line with ISIC 4, broken down into 10 industries. However, as mentioned above, the underlying results have been compiled on the basis of ISIC Rev 3.1 .
  - Seasonally adjusted information was not provided but in the documentation that INDEC provided seasonal adjustment via an indirect method for both the GDP series and for the main expenditure components, including at the level of gross fixed capital formation, is carried out. This is done for the constant prices” series only and at the level of tabulation letter.
- Table 0107: Disposable income, saving, net lending/borrowing, current prices; both seasonally and non-seasonally adjusted for quarterly data.
  - Non-seasonally adjusted series in current prices are available from 2006 Q1 for the main aggregates and some of the main components. Information is missing on “consumption of fixed capital”, “net national income at market prices”, “current transfers receivable from [...]” and “[...] payable to the rest of the world”, “adjustment for the change in net equity of households in pension funds reserves”, and “capital transfers receivable from [...]” and “[...] payable to the rest of the world”. Seasonally adjusted series are not available.
- Table 0110: Population and employment; both seasonally and non-seasonally adjusted for quarterly data.
  - Non-seasonally adjusted series are available from 2016Q1 for employment, broken down into “employees” and “self-employed”. No information is available on population totals. Furthermore, seasonally adjusted series are not available.

- Table 0111: Employment by industry, breakdown by ISIC 4/A10, in persons, hours worked and jobs; both seasonally and non-seasonally adjusted for quarterly data.
  - Non-seasonally adjusted series are available for number of persons, broken down into “employees” and “self-employed”, starting from 2016 Q1. Seasonally adjusted series are not available. Furthermore, no information is currently available on “hours worked”, but this is expected to become available in the course of 2019. The information as provided in the questionnaires is in line with ISIC 4, broken down into 10 industries. However, as mentioned above, the underlying results have been compiled on the basis of ISIC Rev 3.1 .
- Table 0117: Final consumption expenditure by “durability”, current prices and volume; both seasonally and non-seasonally adjusted for quarterly data.
  - As part of the quarterly estimation process of household consumption at constant and current prices, an unpublished internal calculation by Central Product Classification (CPC) is performed. INDEC is planning to publish breakdowns for household consumption and government consumption in the near future. The consumption of households by COICOP is expected to become available once the final report of household expenditure survey (ENGHo 2017-2018) is published. However, it is not yet known at what level of detail.<sup>48</sup>
- Table 0119: Simplified non-financial accounts by institutional sector, current prices; annual data only.
  - Not available.
- Table 0200: Main aggregates of general government and its subsectors, current prices; annual data only.
  - Not available.
- Table 0301: Output and income, breakdown in ISIC 4/A21/A38/A64/A88, current prices and volume, annual data only.
  - Not available.
- Table 0302: Capital formation, breakdown in ISIC 4/A21/A38/A64/A88/AN\_F6, current prices and volume; annual data only.
  - Not available
- Table 0303: Employment, breakdown in ISIC 4/A21/A38/A64/A88, in number of persons, hours worked, jobs; annual data only.
  - Not available.
- Table 0501: Final consumption expenditure of households by purpose, in COICOP, current prices and volume; annual data only.
  - Not available.
- Table 0502: Final consumption expenditure of households, from domestic to national concepts, current prices and volume; annual data only.

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<sup>48</sup> The current consumption estimation by COICOP is based on the 1999 COICOP and INDEC decided that the publication should be postponed in order to be processed with the COICOP 2018, in accordance to the ENGHo 2017/2018, and the new CPI. The expenditure by COICOP at constant and current prices with an annual frequency is expected to be published in 2020.

- Not available.
- Table 0800: Non-financial accounts by institutional sector (detailed), current prices, employment by institutional sector in number of persons and hours worked; annual data only.
  - Not available.
- Table 0801: Non-financial accounts by institutional sector (main sectors), current prices, employment by institutional sector in number of persons and hours worked; quarterly data only.
  - Not available.
- Table 0900: Detailed tax and social contribution receipts by type of tax or social contributions and by receiving sub-sector, current prices; annual data only.
  - Not available.
- Table 1100: Expenditure of general government (and sub-sectors) by function, current prices; annual data only.
  - Not available.
- Table 2000: Cross-classification of fixed assets by industry, breakdown by ISIC 4/A21/A38/A64/A88 and by non-financial assets AN\_F6, current prices and volume; annual data only.
  - Not available.
- Table 2200: Cross-classification of gross fixed capital formation by industry, breakdown ISIC 4/A21/A38/A64/A88 and by non-financial assets AN\_F6, current prices and volume; annual data only.
  - Not available.
- Table 2600: Balance sheets for non-financial assets, by sector, current prices; annual data only.
  - Not available.
- Table 2900: Social insurance pension schemes, current prices; annual data to be provided every three years only.
  - Not available.

247. Looking at the coverage, INDEC complies with many of the data requirements of the production accounts, although some specific series are still missing, e.g. due to the fact that data are still compiled on the basis of ISIC Rev. 3.1, due to lack of data, or due to unreliability of the results. Some further remarks can be made:

- An important omission with regard to the production accounts is the lack of seasonally adjusted data. INDEC is strongly encouraged to look into the compilation of these series, by exploring internationally recommended techniques;
- Data are currently only provided for the quarterly series. INDEC is encouraged to also start compiling annual results. In the short term, the annual results could be derived from the quarterly results, but in the longer term it would be recommended to explore additional data sources that may be used to further improve the estimates. The latter may also assist in obtaining data for some of the (sub)series that are currently missing;
- With regard to the omission of certain ISIC Rev. 4 categories in some of the tables, INDEC is recommended to move from Rev. 3.1 to Rev. 4 in their compilation process. This should capitalise on the development of a statistical business register, recommended in Section XX;



- For some tables, the availability of time series is very limited. Although it may not have the highest priority, it would be useful to explore possibilities to extend these time series.

248. With regard to the other tables, the coverage is poor, mainly because institutional sector accounts are currently not being compiled by INDEC. It is strongly recommended that INDEC explores the possibility of compiling these results, first at an annual frequency and in a second stage at a quarterly frequency. It is well understood that the development of a full set of institutional sector accounts constitutes a major task, but as a lot of information appears to be available (see for more information Section 1.2.8), this does appear feasible.

## 2.2. Compliance

249. The conceptual reference for the OECD is the 2008 System of National Accounts. INDEC's National Accounts comply with the 2008 SNA in many respects:

- With regard to accounting rules, transactions and flows are recorded on an accrual basis, and the valuation of output, including for own final use, is at basic prices; the valuation of intermediate consumption and final consumption is at purchasers' prices;
- With regard to the measurement of output, this includes transport and insurance services on imports and exports provided by resident producers.
- FISIM is calculated using a reference rate (estimated as a weighted average of the implicit lending and borrowing rates) including its allocation to final and intermediate consumption. Efforts should be made to investigate the scope for a separate explicit reference rate as the current calculation whilst acceptable for total FISIM, may generate erratic results for GDP estimates (in other words the split between intermediate FISIM and final demand FISIM);
- With regard to the measurement of final demand, this includes the capitalisation of expenditures for R&D services purchased on the market, own-account fixed capital formation (but not own-account R&D and software), infrastructure such as roads, railways and bridges, and the capitalisation of expenditures of mineral exploration;
- With regard to exhaustiveness, territorial enclaves in the rest of the world are included in the results (free zones/bonded warehouses/factories operated by offshore enterprises under customs control are not included). Furthermore, INDEC makes estimates for the non-observed economy (see also Section 1.2.4);
- With regard to classifications, industry-level results have been provided on the basis of ISIC Rev. 4, although as explained in the documentation underlying results have been compiled on the basis of ISIC Rev 3.1. For the product breakdown, CPC 1.1 is used.

250. However, one can also note a number of deviations from the 2008 SNA:

- With regard to the measurement of output and final demand:
  - Own-account production of goods for own final consumption is only implicitly included for the agricultural sector;
  - Valuation of non-market output produced by government and NPISHs excludes consumption of fixed capital;
  - No estimation of own production of R&D;
  - Output of non-life insurance services is not based on the recommended approach based on expected claims;

- No estimation of own-account production of entertainment, literary or artistic originals and in addition no capitalisation of these items including when they are purchased;
  - No capitalisation of computer software (whether developed in-house or purchased);
  - No capitalisation of expenditure for military structures and equipment;
  - No capitalisation of historical monuments, valuables, patented entities, leases and other transferable contracts (including purchased goodwill);
  - No or incomplete entries in inventories (and therefore capital formation) for work-in-progress on large construction projects and large items of equipment, work-in-progress in service industries, and all goods stored by government;
  - No estimates of the cost of ownership transfer;
  - No accounting for bundling of products within communication services;
  - In addition to the comments above regarding the derivation of the referenced rate, there are no estimates of exported or imported FISIM.
- With regard to classifications:
    - No use of COICOP to classify individual consumption expenditure by households;
    - No use of COPNI to classify individual consumption expenditure by NPISHs;
    - No use of COFOG to classify individual and collective consumption expenditure by government;
    - No use of the SNA Asset Classification for non-financial assets.
  - With regard to price and volume measures:
    - No double deflation of value-added and implied constancy of input coefficients (intermediate inputs/outputs);
    - No chaining for volume measures (see Section 1.2.3).

251. Overall, it can be concluded that INDEC complies to a large extent with the international standards, but that efforts should be made to correct the deviations noted above.

### **2.3. Methodology**

252. As is the case in most countries, quarterly data are not compiled on the basis of supply-and-use tables (indeed the latter are only available for the benchmark year 2004, see also Section 1.5). This means that balancing, as is the case in many countries, between the different parts of the accounts takes place at an aggregate level.

253. Volume estimates of GDP are to a large extent based on the 2004 benchmark values of industry-level value-added at current prices that are extrapolated with industry-specific volume indices. Only in a small number of industries are volume estimates derived by deflating current-price series. One implication is the assumed stability in the share of intermediate inputs in gross outputs. Another implication is that constant price value-added measures are all valued at prices of the benchmark year. Consequently, changes in real GDP between any two consecutive periods are a weighted average of volume changes with (quantity-updated) base-year weights. It is well established that the absence of chain indices in the computation of volume measures may be a source of bias, often with an upwards tendency that increases as the observation period moves further ahead of the base period. Another consequence of using physical volume indices is the

difficulty in capturing quality change, although compositional changes may be captured when volume indices are available at a sufficient level of disaggregation. While quantity updating is regularly used in countries' quarterly accounts, as a way to expedite estimates, it is less frequent in annual accounts where higher quality albeit less timely source data come into play.

254. Given value-added measures at 2004 prices, current-price measures of production and value-added are derived using industry-specific price indices that are applied to the constant price data. The fact that current price measures of value-added for non-benchmark years are derived figures, at the end of the production chain, and compounding the possible deficiencies of volume measures and deflators means that their reliability is likely smaller than those of constant price measures.

255. The production accounts use a large array of sources, as follows, for the main industries:

- Agriculture: information on volume of production and production prices on agricultural products and current price information on animal production. Intermediate consumption is derived on the basis of fixed coefficients obtained from old surveys.

Sources: Ministry of Agriculture; Grain Exchange; Office for Agricultural trade control; National Service for Health and Agri-food quality.

- Fishing: information on volume of production and production prices.

Sources: Ministry of Agriculture; Fishing cooperative.

- Mining: volume indicator on the basis of number of job vacancies and prices derived from salary costs. Current price information for large enterprises.

Sources: Argentinian Integrated Social Security System (SIPA); National Survey of Large Enterprises (ENGE).

- Petroleum: volume and price indicator on basis of cubic meters and price

Source: Ministry of Energy and Mining.

- Electricity, gas and water: volume and price indicators mainly based on information from large enterprises. Intermediate consumption for other companies is largely derived on the basis of fixed coefficients.

Sources: Wholesale Electric Market Management Company; Secretariat of Energy; Federal Administration of Public Revenue; Self-producers Survey; Regulating agencies; National Survey of Large Enterprises (ENGE).

- Manufacturing: volume indicators and price indices. Current price information for large enterprises. Specific adjustments are made to correct for the Non-Observed Economy.

Sources: Ministries of Agriculture and of Energy and Mining; Monthly Industrial Survey; Industry chambers/federations/associations; National Survey of Large Enterprises (ENGE) – Basic Wholesale Price Index; Alternative Consumer Price Index; Foreign Trade Price Indices; Construction Input Index; ENGE Price Index

- Construction: volume indicator on the basis of number of job vacancies and Synthetic Indicator of Construction Activity. Prices derived on the basis of a Construction Cost Index. The Non-Observed Economy plays a large role in construction.

Sources: Argentinian Integrated Social Security System (SIPA); Construction Cost Index.

- Transport: Volume indicators (transported passengers; distance travelled; tons/m<sup>3</sup> of transported products; demand indices) and price indicators on the basis of specific price series of different modes of transport. Current price information for large enterprises.

Sources: National Commission for Regulation of Transport; Ministries of Agriculture and of Energy and Mining; Directorate of Passenger Transport; Industry chambers; Alternative CPI; Sea Transport Price Index; National Survey of Large Enterprises (ENGE).

- Trade: Volume and price indicators derived on the basis of volume and price indicators for gross production value of involved industries and net exports and imports.

Sources: INDEC.

- Hotels: Volume indicator on the basis of occupancy rate and production value.

Sources: Hotel Occupancy Survey and Federal Administration of Public Revenue.

- Restaurants: Volume indicator on the basis of elasticity of demand according to 2004 survey and production account of the manufacturing industry. Price indicator on the basis of Consumer Price Index and wage information. Current price information on the basis of annual sales. Information from the household expenditure survey also plays an important role in the estimate.

Sources: Survey information from INDEC; Consumer Price Index; Wage Index; Permanent Household Survey; Argentinian Integrated Social Security System; Federal Administration of Public Revenue.

- Financial services: Volume indicator based on volume of loans and deposits and on current price information deflated by a branch specific CPI. Current price information available from the Central Bank of the Republic of Argentina (BCRA). A specific calculation is applied to derive FISIM .

Sources: BCRA; Alternative CPI.

- Insurance services: Volume indicator based on number of policies, number of job vacancies and on premium production deflated by alternative CPI.

Sources: Superintendency of National Insurance; Argentinian Integrated Social Security System; Alternative CPI.

- Real estate activities: Stocks of houses and construction permit releases to derive information on home ownership.

Sources: Public Notaries Association.

- Public administration: Current price data on the basis of budgetary information.

Sources: Budgetary execution of the national, provincial and municipal governments.

It should be noted that information on local governments is currently missing. It is estimated that this accounts for approximately 70% of government production.

- Telecommunication: Results derived on the basis of extrapolation and indexation.

Sources: National Communications Agency; Internet Survey.

256. As regards the expenditure side of GDP, INDEC proceeds as follows. First, nominal values for exports (FOB) and imports (CIF) are obtained from monthly customs declarations. Constant 2004 price values are obtained by applying a unit value Paasche-type index (thus using current weights), equally derived from customs sources. Independent information is also available for changes in inventories and government consumption. For the government this concerns information from the budgetary execution of the national, provincial and municipal governments. The changes in inventories are obtained on the basis of stock information available from the Monthly Industrial Survey. However, apart from the 2004 benchmark levels, no independent series are available for household final consumption expenditure (HFCE) or for gross fixed capital formation (GFCF).

257. INDEC thus proceeds with a commodity flow method for HFCE and GFCF. The commodity flow method is applied at the 3-digit CPC level. Broadly speaking, imports at purchasers prices along with distribution margins and net taxes on products are added to values of domestic production at basic prices, and exports and changes in inventories are deducted to obtain measures of domestic demand that are then allocated to intermediate consumption, HFCE and GFCF in line with the 2004 Supply and Use Table (SUT).

258. The commodity flow method to determine parts of final demand largely balances the production and the expenditure side of GDP except for discrepancies that may arise from the valuation adjustments of flows when moving from the production side at basic prices to the expenditure side at purchasers' prices. INDEC applies a simple proportional adjustment method to HFCE and GFCF to deal with these discrepancies. As all constant price values are additive, the same balancing method is applied for current and constant price series.

259. As regards the generation of income account, INDEC estimates compensation of employees, mixed income, gross operating surplus and other net taxes on production by industry. The estimation source for registered wage employment compensation is the Argentine Integrated Social Security System (SIPA). The source for unregistered employment compensation is the Permanent Household Survey (EPH). Mixed income is based on the National Economic Census 2004 and the EPH. The sources for the estimate of other taxes and activity-based subsidies are the Argentine Federal Administration of Public Revenue and budget execution sources.

260. While the basic methodological approach is sound, a major drawback is that results are derived on the basis of 2004 benchmark values. It is important that INDEC moves to a more recent benchmark year as soon as possible and that it ensures that this benchmark year is regularly updated (i.e. at least every 4-5 years). If possible, INDEC should also move to chain-linked series for the volume measures and derive value added in constant prices on the basis of the method of double deflation. Finally, INDEC is encouraged to investigate potential independent data sources for estimating household final consumption expenditure and gross fixed capital formation that are currently being derived on the basis of the commodity flow approach.

261. INDEC also publishes first quarterly GDP estimates at T+50 on the basis of results obtained via the monthly economic activity index (i.e. EMAE). This index provides information at ISIC rev.3 level and is compiled in a similar way as GDP. As the results do not fully align with the national accounts totals, specific benchmark techniques are used to bring them in line. The methodology used to estimate each component of the EMAE is mainly the same as for the quarterly GDP (in terms of coverages, geographical areas, variables, version of the register, data collection methods). In order to avoid any confusion by users and to bring internal consistency, benchmarking techniques following international recommendations are carried out in order to align both series. As the compositions of the EMAE and the GDP are identical at the section level of ISIC Rev. 3, and as the coverage of both indicators is almost the same, the correlation between the quarterly average of the high frequency indicator and the benchmarking series is superior at 0.96 in all cases. For each EMAEs economic activity sector and according to the performance of the results, standard techniques (Denton-Cholette, Chow-Lin, Fernandez and Litterman) are used to conciliate the time-series.

#### **2.4. Exhaustiveness**

262. INDEC has indicated that the adjustments for the Non Observed Economy (NOE) include those for: the informal economy (legal activity but not declared because conducted by non-registered units, too small to be registered and/or conducted under informal employment contracts); the underground economy (legal and declared production but voluntarily underestimated to avoid taxation and other administrative burdens); and missing production because of gaps in statistical collection (e.g. exclusion of micro-firms from business surveys to avoid burdening them). Illegal activities are however only partially covered.

263. NOE adjustments are carried out industry-by-industry, mainly based on the labour method. A first estimate was based on the population census and for subsequent years results have been extrapolated on the

basis of the household expenditure survey. In deriving the values, INDEC also looks at the median development of smaller enterprises in the same branch, the development of the net wage and the development of the number of hours worked. With regard to the latter, it would be interesting to compare the hours worked for self-employed with results obtained from the Labour Force Survey.

264. INDEC also adjusts for underreporting. First of all, corrections are made for enterprises that are not registered. Secondly, corrections are made for enterprises that report negative results (for these companies the results are set equal to the compensation of employees). Thirdly, they look at outliers in the dataset and if necessary correct either the production or intermediate consumption to arrive at more reliable results.

265. Changes to estimates of the NOE have been a major source in the rectification of Argentina's national accounts, starting with a revised benchmark year 2004. For the benchmark year 2004, the most important NOE adjustments (in % of gross value added of the relevant activity) were:

- Agriculture, forestry and fishing (1.6%) – there is some uncertainty as to exact contents of this adjustment;
- Construction (59.6%);
- Wholesale and retail trade (46%);
- Accommodation and food service activities (48%);
- Community, social and personal services (44.5%).

266. As a recommendation, it would be instructive to estimate exhaustiveness adjustments broken down by the seven categories (N1:N7) described in the Eurostat Tabular approach for Exhaustiveness.

## 2.5. Metadata

267. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. To ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

268. A description of Argentina's national accounts compilation methods is publicly available<sup>49</sup> in Spanish. It provides a well-structured and transparent explanation of the methods and sources used in estimating the benchmark figures for 2004, and how constant price and current price values for subsequent quarters are derived. It is updated at each release. INDEC is encouraged to also provide this information in English.

## 2.6. Timeliness, data and metadata transmission

269. The OECD expects the transmission of annual accounts at the latest at Y + 9 months (and Y+6 months for Table 0200). Transmission of the first estimate of GDP is expected at Q+45 days, where Q is the reference quarter. Transmission of national accounts data should take place on the same day as the national release.

270. Argentina releases first quarterly GDP estimates at Q+50 based on results from the monthly economic activity index (i.e. EMAE). All other quarterly estimates become available at Q+80 days. By implication, annual data for most series becomes available at Y+80 days. As soon as data is released at the

<sup>49</sup>

[http://www.indec.gob.ar/nivel3\\_default.asp?id\\_tema\\_1=3&id\\_tema\\_2=9](http://www.indec.gob.ar/nivel3_default.asp?id_tema_1=3&id_tema_2=9)  
[https://www.indec.gob.ar/ftp/cuadros/economia/pib\\_revision\\_2015\\_2017.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/pib_revision_2015_2017.pdf)  
[https://www.indec.gob.ar/ftp/cuadros/economia/pib\\_revision\\_2016\\_2018.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/pib_revision_2016_2018.pdf)

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national level, it can be transmitted to the OECD. Furthermore, INDEC uses a release calendar to announce the next dates of publication.

271. Although INDEC already made significant progress in moving the first GDP estimates from Q+80 to Q+50, they are encouraged to further explore whether this could be improved to T+45.

## **2.7. Overall assessment**

272. The Argentinian national accounts cover essential parts of the full sequence of accounts. Significant progress has been made since the beginning of 2016 in re-estimating the 2004 benchmark year and the time series since 2014 Q1. INDEC is to be commended for the progress made within a short time and for a given information base. However, the gaps and the timeliness of the statistical infrastructure and source data remain a source of serious concern. This relates in particular to the availability of recent censuses, an incomplete business register and the absence of a recent household expenditure survey.

273. Important gaps in the coverage of the national accounts with regard to OECD requirements remain. The single biggest gap is the absence of sector accounts, although it is well understood that, absent annual accounts, the development of a full set of quarterly sector accounts would constitute a major task.

274. For the existing tables, compliance with the 2008 SNA has been achieved in many important areas, although a number of tasks remain in this respect.

275. Another consequence of the gaps in the statistical information base is the strong reliance on the production side of the accounts for estimating real GDP on the basis of industry-level quantity indexes. No double deflation methods (and no single deflation methods) are in place for value-added, and constant price aggregates reflect a fixed (2004) based Laspeyres index number formula. Major expenditure components (HFCE and GFCF) are derived with the commodity flow method rather than from independent sources including for benchmark estimates.

276. The derivation of current-price data on the basis of reflat volumes differs from practice in many OECD countries where, in particular in annual accounts, current price data are derived first and then split into prices and volumes.

## **2.8. Recommendations**

277. One of the most important steps with regard to the production accounts is to update the benchmark year in the near future. Many important surveys are based on the 2004 Census, and 15-year-old basic data on economic structures and expenditure patterns are likely outdated and need refreshing to capture structural developments in the Argentinian economy. This will require setting up a medium-term plan for the update and possible development of new parts of statistical infrastructure on which a more recent benchmark estimate can be based. In selecting the most appropriate benchmark year, it is important to select a year for which a wide range of data sources is or will become available, with good coverage both in terms of population and items. Furthermore, it is important that this is a year that is deemed to be a good starting point in providing relatively solid weights and structures for the years to come. In case it is expected that certain weights or structures may become outdated relatively soon, it is recommended to take that into account in the short and medium term data collection strategy, as this may require a relatively rapid (and possibly also relatively more frequent) updating of certain areas of the production accounts.

278. Some essential plans have already been agreed. For instance, the implementation of a new benchmark year for the National Accounts is scheduled as part of the 2017-20 Activity Program, along with sector surveys (manufacturing industry, construction, trade and services) and prices. There is also a plan in place for the development of a Directory of Economic Units and for conducting a new Economic Census and economic sectoral surveys in 2020/2022.

279. Regarding coverage of national accounts, an important medium-term objective is the development of sector accounts. Given their importance in a policy context, such work may well start with developing SNA accounts for the government, financial corporations and Rest of the World, first on an annual basis. Possibilities should then be explored to use counterparty information to estimate non-financial corporations and households. Furthermore, in the medium term, it may be explored whether information on non-financial corporations could be compiled on the basis of independent data sources, amongst others dedicated surveys and administrative data. More detailed information on possible data sources can be found in Box 1. INDEC has indicated that the development of sector accounts will be part of the move to a new benchmark year. Preparatory work has already started e.g. by developing coding of units for institutional sectors and by reviewing the National Survey of Large Businesses. It is expected that this will help in covering those elements of the institutional sector accounts that can be derived from the supply-and-use tables and in improving the coverage of elements as covered in the non-financial corporations' sector. For the other elements of the sector accounts, it is recommended to also already start assessing what is included in existing data sources and to take stock of elements (items and sectors) of the sector accounts for which data is still lacking. This will help in exploring new data sources and in adding specific questions and/or breakdowns to existing data sources. As this usually takes quite some time to materialize, it is important to already start up this process in the short run.

280. The overall question of scope and detail of the accounts suggests that Argentina may want to develop annual accounts in addition to the quarterly series – the former aiming at more detailed and higher quality estimates, the latter emphasising timeliness of estimates. This is the practice followed in OECD countries.

281. Another medium-term objective is placing estimates in an SUT framework for current and constant price estimates. Less reliance on extrapolation of industry value-added with quantity indexes should be another medium term objective although this may be more relevant in conjunction with annual accounts and requires the parallel development of producer and consumer price indices by product that are up to the task of deflating production, intermediate inputs, and final demand. INDEC has indicated that the forthcoming benchmark revision of the national accounts will be developed in an SUT framework.

282. Regarding estimates of the NOE, NOE adjustments should be made by type of non-observability (N1 – N7), for the next benchmark year estimates. INDEC has indicated that it will examine whether such a breakdown can be developed.

283. The most immediate task is articulating priorities for the medium term development of the scope and detail of the national accounts, costing this work and developing an action plan for implementation.

284. Countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not



only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too.

### 1. **Box 1. Compilation of institutional sector accounts**

INDEC currently does not compile institutional sector accounts. However, a lot of information is available that may feed into the compilation of these results. A first step would be to clearly assign the responsibility for the compilation of institutional sector accounts. Then, an assessment should be made of possible data sources and the work that would be needed to estimate results for the various sector in the economy and to balance the results to arrive at consistent and comprehensive results. This assessment should also provide more insight in the resources needed for the compilation of these results, first on an annual basis and later also on a quarterly basis.

When looking at possible data sources for the compilation of institutional sector accounts, the following can be mentioned:

- The Sustainability Guarantee Fund (FGS) is sovereign pension reserve fund established in 2007; it was constituted to guarantee retirement payments by the National Social Security Administration (ANSES) and started when the private pension funds (AFJP) accounts were transferred to it. The FGS may provide relevant input for estimates on its investments flows and balance sheets.
- The Superintendency of Insurance (SSN) is an entity that monitors all approximately 180 insurance companies in Argentina. It also compiles statistics on these entities, which may constitute a very important data source to compile results for the insurance corporations' sector.
- The Ministry of Finance compiles debt statistics for the central government on a quarterly basis and publishes aggregated information on its website. The instrument breakdown seems to be in line with SNA requirements, although the valuation is on the basis of book value instead of market value. It may need to be explored how to obtain information on local governments (and social security schemes) to arrive at a more comprehensive coverage of the government sector, but these data already provide a good starting point.
- The BCRA is the regulatory authority for deposit-taking monetary financial corporations and in that role regularly collects and publishes statistical information, such as international reserves, balance sheet items and monetary aggregates. The data also includes a lot of counterparty information. In this data collection, the BCRA tries as much as possible to align with international statistical manuals and all this information is shared with INDEC on the basis of a framework agreement.
- The BCRA also collects and reports information on flows and positions vis-à-vis the rest of the world (except trade information, which is compiled by INDEC). Corporations report on a monthly basis on their cross-border transactions and on a quarterly basis information is received on foreign direct investment and portfolio investment positions. The data are largely in line with SNA and BoP standards and are shared with INDEC.
- With regard to the other financial corporations (OFI), Argentina participates in the shadow banking monitoring exercise, which yields a lot of information on parts of the OFI sector. It should be explored which organisation is compiling and providing this information to the Financial Stability Board (FSB) and whether INDEC can be granted access to this information, which would provide a relevant data source for the compilation of financial accounts and balance sheets.

- Administrative data sources may provide information on specific sectors and/or on specific items in the institutional sector account. The Argentine Integrated Social Security System (SIPA) for example includes a lot of relevant information on wages and salaries as well as on social contributions and benefits. Furthermore, fiscal data may provide more insight in specific income and wealth items. It is important that INDEC assess possible relevant data sources in this regard and arrange for this information to be shared with it on a regular basis, preferably at the micro-level as this provides the possibility to cross-check the data with other information and to process them at the most detailed level.
- Additional information on the household sector could be obtained on the basis of the household expenditure and income survey and possible other surveys.
- Finally, information on non-financial corporations could be obtained from survey data on the largest corporations, possibly supplemented with additional survey data on the other corporations and administrative data.

INDEC is encouraged to explore the various data sources and on the basis of the available data to start populating parts of the institutional sector accounts. This will help in assessing data gaps and in obtaining insight in the coherence of the initial results. This will provide input for exploring techniques to close the remaining gaps and to balance the full system of accounts. The focus should initially be on annual data, but it is recommended to also look at availability of data at quarterly frequency to be able to start compiling, possibly at a more aggregated level, quarterly sector accounts.

### 3. Financial national accounts statistics

285. The OECD collects information and maintains databases on four annual and quarterly financial statistics topics: (i) financial accounts and financial balance sheets; (ii) households' assets and liabilities; (iii) institutional investors' assets; and (iv) public sector debt. The first three topics are discussed in this section. The topic of public sector debt is discussed in Section 1.4.

286. As INDEC does not compile institutional sector accounts yet, none of the relevant tables is currently available. As INDEC is looking into the compilation of these results, this section provides an overview of the information as covered in the relevant tables. It is recommended that INDEC first start exploring the compilation of financial accounts and balance sheets at an annual level on the basis of available data sources, and then explore possibilities to cover the information as included in the other tables. As a second step, INDEC can also start looking at the possibilities to compile this information on a quarterly basis, possibly exploring additional data sources.

#### 3.1. Coverage

287. This subsection provides an overview of the OECD's annual and quarterly financial national accounts data requirements as spelled out in the various tables. The OECD databases contain data collected from all OECD member countries and some other major economies on the basis of a standardised questionnaire as well as according to countries' own definitions and classifications. The annual and quarterly tables generally include the same information. Time series are expected to cover data from 1995 for both annual and quarterly data.

### 3.1.1. Financial accounts and balance sheets

288. The OECD database on Financial Accounts is composed of four data sets, i.e. financial accounts and the balance sheets accounts, both on a consolidated and non-consolidated basis. The financial accounts tables record, by type of instruments, the financial transactions between sectors. The balance sheets accounts record the stocks of financial assets and liabilities held by the institutional sectors, and give a picture of their net worth, at the end of the accounting period.

289. The data requested cover the following domains:

- Table 0610: Financial accounts by sector (transactions), consolidated
- Table 0620: Financial accounts by sector (transactions), non-consolidated
- Table 0710: Balance sheets for financial assets and liabilities (stocks), consolidated
- Table 0720: Balance sheets for financial assets and liabilities (stocks), non-consolidated

290. For both financial accounts and financial balance sheets the OECD requires data by institutional sector, some of which are divided into sub-sectors, for financial assets and liabilities group into eight categories of instruments, most of them split into sub-instruments. In addition, countries are asked to report balancing items for both net financial transactions and financial net worth. Countries should provide financial accounts on both a non-consolidated (Table 0620) and a consolidated basis (Table 0610) and financial balance sheets on both a non-consolidated (Table 0720) and a consolidated basis (Table 0710). Countries should provide both annual and quarterly tables.

### 3.1.2. Households' assets and liabilities

291. The OECD database on Households' Assets and Liabilities is an extension of the financial balance sheet database. The Secretariat collects more detailed information to better identify and analyse households' wealth in OECD countries.

292. The data requested concern the following table:

- Table 7HH: Households' financial assets and liabilities

293. The Secretariat requires quarterly series for balance sheet data for specific assets and liabilities by category of instruments, including investment fund shares (and sub-instruments), life insurance reserves (and further breakdowns), pension funds (and further breakdowns), and liabilities, including short- and long-term loans (and detailed subcategories). Data are also collected for a selection of the most important households' non-financial assets, which contribute to their wealth, such as dwellings, land and consumer durable goods. This helps to measure the full value of household wealth. Countries should report all available data, in their national currency, from Q1 1995 onwards.

### 3.1.3. Institutional investors' assets

294. Institutional investors are composed of investment funds, insurance companies and pension funds, and other forms of institutional savings institutions. Within these sectors, further breakdowns are required.

295. The data requested concern the following table:

- Table 7II: Institutional Investors' assets and liabilities

296. Stock information has to be reported on a quarterly basis for the following financial assets: currency and deposits; securities other than shares (broken down according to initial maturity); loans (broken down according to initial maturity); shares and other equity; and other financial assets. Certain assets are further

split according to the residency of issuers/holders. As well, total non-financial assets are requested. Countries should report all available data, in their national currency, from Q1 1995 onwards.

### **3.2. Compliance**

297. This is not relevant as institutional sector accounts are currently not compiled in Argentina.

### **3.3. Methodology**

298. This is not relevant as institutional sector accounts are currently not compiled in Argentina.

### **3.4. Metadata**

299. This is not relevant as institutional sector accounts are currently not compiled in Argentina.

### **3.5. Timeliness, data and metadata transmission**

300. This is not relevant as institutional sector accounts are currently not compiled in Argentina.

### **3.6. Overall assessment**

301. INDEC is currently not compiling institutional sector accounts data. This constitutes an important data gap in their national accounts.

### **3.7. Recommendations**

302. As was mentioned in the previous section on non-financial national accounts, it is important for INDEC to start developing institutional sector accounts. In addition to the non-financial part, it is also relevant to focus on the financial part. The first priority in this regard should be on obtaining balance sheet information and information on financial flows, by exploring possible data sources. As was the case for non-financial sector accounts, relevant data sources may already be available for the government, financial corporations and the Rest of the World, as well as for non-financial corporations and the household sector. Furthermore, counterparty information may prove useful in covering specific areas for which no direct information may be available. On the basis of this information, INDEC should start populating the relevant tables, exploring possible data gaps and inconsistencies in the initial data. The construction of from-whom-to-whom tables for specific financial instruments may prove useful for this purpose, particularly if a lot of counterparty information is indeed available. Whereas the focus should first be on annual results, it is recommended to also explore the availability of quarterly data. More detailed information on possible data sources can be found in Box 1. INDEC has indicated that the development of sector accounts will be part of the move to a new benchmark year. Preparatory work has started e.g. by developing coding of units for institutional sectors and by reviewing the National Survey of Large Businesses.

## **4. Public Sector Debt statistics**

303. Although INDEC does not currently provide information on public sector debt, the Argentinian authorities requested that the review consider several issues in relation to these statistics, and these are discussed below.

#### 4.1. Coverage

304. The basic reference here is the joint OECD, World Bank and IMF quarterly database on government and broader public sector debt.

305. The data requested concern the following table:

- Table PSD: Public Sector Debt, consolidated, nominal value

306. On the basis of data exchange agreements between the international organisations, Argentina has to provide this information to the World Bank on a quarterly basis. The minimum requirements are for consolidated, quarterly debt data (i.e. stock data only) for central government and general government. Debt data for budgetary central government, non-financial public corporations, financial public corporations and the total public sector are also collected when available.

307. The debt instruments to be reported are all liabilities considered as debt, which excludes liabilities in the form of equity and investment fund shares and financial derivatives and employee stock options. Data are to be broken down by instrument, maturity, residence of creditor, and currency. Countries should report all available data, in their national currency, at nominal value, from Q1 1995 onwards.

#### 4.2. Compliance

308. Countries should comply with the guidelines in “Public Sector Debt Statistics: Guide for Compilers and Users”, issued by the Task Force on Finance Statistics. The classifications and definitions are in line with those of other international manuals in particular the 2008 SNA and the Government Finance Statistics Manual 2014. However, the valuation here differs from SNA valuation rules in that public sector debt is measured at nominal value (and not at market value as in core national accounts).

#### 4.3. Methodology

309. The headline figures for government debt relate to central government debt and general government debt as a percentage of GDP. Argentina’s statistics on government debt statistics are exclusively compiled by the Secretariat of Finance (Secretaría de Finanzas) under the Ministry of Treasury. Debt statistics published by the Ministry relate to central government and thus exclude the debt taken out by provinces and municipalities. Debt statistics are published on a quarterly basis.

310. Provinces are obliged to report provincial debt to the Ministry, which is then in a position to elaborate a consolidated debt figure for general government. However, provincial data are collected with a significant delay so that general government debt figures are generally only available around T + 24 months.<sup>50</sup>

311. Debt instruments comprise debt securities, loans and contingent liabilities (guarantees by the central government). All instruments are registered at nominal value.

312. The Ministry of Treasury compiles Government Financial Statistics according to GFSM 2001 and on a cash basis. Consequently, there are inconsistencies with national accounts concepts. However, given the absence of institutional sector accounts no discrepancies are visible.

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<sup>50</sup> Provincial debt figure is currently published by the National Bureau of Provincial Affairs, which depends upon Secretariat of Treasury. The annual provincial series from 1996 to 2018 are available on the following web pages:

- <https://www.argentina.gob.ar/hacienda/sechacienda/asuntosprovinciales>
- <https://www.minhacienda.gob.ar/dnap/deuda.html>

Data for the year 2018 were published on 31 March 2019. Publication of provincial debt data does not fall within the scope and duties of the Secretariat of Finance.

313. Concerning communication by the Ministry, the distinction between “central government”, “general government” and “public sector debt” is not always clear. For instance, the Ministry’s bulletin refers to “Deuda publica” when in fact central government debt is meant as is apparent from the synonymous use of “Deuda del Estado Nacional”. Clarity in terminology will be even more important once genuine public sector debt statistics become available.

314. In what follows, several more specific questions will be addressed that were brought to the attention of the OECD by the Argentinian authorities.

- GDP warrants: GDP warrants are debt instruments that give rise to payments to creditors when GDP growth exceeds a base rate of economic growth. There is a ceiling for annual payments, independently of the realised rate of economic growth. Argentinian GDP warrants have a final maturity in 2035 at which time all the corresponding remaining debt will be written down to zero. The Argentinian Ministry of Treasury treats GDP warrants as contingent liabilities. This appears to be an appropriate treatment given the contingency of reimbursement on the realisation of a particular GDP growth rate and in particular given the lack of any principal that should be repaid. The 2008 SNA/GFSM 2014 provide that contingent liabilities do not form part of total gross debt of general government. The same provision applies to the OECD/World Bank/IMF Public Sector Debt Statistics and consequently, GDP warrants should be excluded from Argentina’s General Government debt figure. The Argentinian authorities are investigating the scope to provide a measure of these contingent liabilities as a complement to traditional debt statistics within a new measure described as “Broad Gross Public Debt”. The OECD suggests that the term “Broad Gross Government Debt” is used, however, to avoid confusion. The 2008 SNA/GFSM 2014 envisage market valuation for government liabilities, whereas the OECD/World Bank/IMF Public Debt statistics use a nominal valuation. Nominal valuation is also recommended for non-negotiable debt and is more generally used by Argentina for valuing its government debt. Consequently, a nominal valuation of GDP warrants seems appropriate when they enter the new debt aggregate that the Ministry wishes to put in place. Given the fixed time horizon of GDP warrants, the nominal value would gradually decline, reaching zero in 2035.
- Consolidation of debt data: While both non-consolidated and consolidated debt figures are of use, the headline figures that are used in international comparison are consolidated data. However, care must be taken to consolidate only between units belonging to the institutional sector to which the aggregate relates. Thus, while consolidated figures for general government should net out liabilities between units of different levels of government (central, provincial, municipal), they cannot net out liabilities between general government and other units, in particular the BCRA. By the same token, a measure of consolidated Public Sector Debt would allow such netting out as the BCRA is a financial unit that belongs to the Public Sector.
- Pension liabilities: There are two distinct issues associated with pension liabilities.
  - One concerns the payment of past pension obligations that had not been met by the previous government but to whose payment the present government is committed. Despite certain actions pensioners need to take to claim their arrears, these obligations would appear to be actual rather than contingent liabilities. Consequently, they should form part of Argentina’s general government debt figures.
  - Another concerns future pension liabilities that will arise in conjunction with unfunded (“pay-as-you-go”) pension schemes, as these are generally excluded from the headline SNA figure on government debt. However, OECD countries are now in the process of recording them in a supplementary table (2008 SNA, table 17.10). This may also be the way forward for Argentina.

- Guarantees: Another issue has been whether guarantees are to be treated as debt or not. The SNA distinguishes between standardised guarantees (issued in large numbers, usually for fairly small amounts, along identical lines) and one-off guarantees (particular operations where it is difficult to assess risk). Paragraph 17.224 of the SNA stipulates that the estimated amount of standardised guarantees should be recognised as a liability and consequently enter general government debt if it concerns a liability of a unit within general government. This is not the case for one-off guarantees. The treatment thus depends on the specific type of guarantee and requires a case-by-case judgement.

#### **4.4. Metadata**

315. For OECD purposes, complete and clear metadata must be available and transmitted to the Statistics and Data Directorate (SDD) in one of the official languages of the organisation, English or French. However, to ensure transparency of data and help users make cross-country comparisons, it is strongly recommended that metadata be available in English and easily accessible over the internet (on national websites).

316. A helpful presentation of general government debt with multiple breakdowns by debt holders and instruments is provided quarterly by the Ministry.<sup>51</sup> Information has also been provided to the IMF's SDDS.<sup>52</sup>

#### **4.5. Timeliness, data and metadata transmission**

317. It is important that data be made available to the OECD at the same time, or immediately after, they are released nationally. Ideally, annual data should be available within 6-9 months, and quarterly data within 4 months, after the reference period.

318. Countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users.

319. The Ministry of Treasury transmits GFS data to the IMF 30 days after the reference period for central government and after almost 2 years for general government operations.

#### **4.6. Overall assessment**

320. INDEC does not currently compile information on public sector debt, but relevant information is available that may assist in the compilation of the relevant results.

#### **4.7. Recommendations**

321. An improved coverage of public sector enterprises will be essential to develop public sector debt statistics. Public sector debt statistics will inform national policy and be useful for internationally comparable public sector debt statistics. As about 60% of the Argentinian central government debt is held by institutions elsewhere in the public sector, the consolidated public sector debt ratio may well look very different from the debt ratio of general or central government.

322. In this context, the development of public sector debt statistics should start with an agreed list of all institutional units that should form part of the public sector. Such an agreement should be based on

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<sup>51</sup> [http://www.mecon.gob.ar/finanzas/sfinan/documentos/informe\\_deuda\\_publica\\_30\\_09\\_15.pdf](http://www.mecon.gob.ar/finanzas/sfinan/documentos/informe_deuda_publica_30_09_15.pdf)

<sup>52</sup> <http://dsbb.imf.org/pages/sdds/DQAFBase.aspx?ctycode=ARG&catcode=IIP00>

international standards on the delineation of institutional sectors and involve the Ministry of Treasury and Public Finance, INDEC and the BCRA.

323. Whereas central government debt data are available on a timely basis, this is much less the case for general government debt statistics. It will be important to engage in discussions with provinces and municipalities to work towards a speedier provision of the sub-national data.

324. A medium term objective should be implementation of GFSM 2014 so as to put Argentina's debt statistics on a methodological footing that is in line with international best practice and will promote consistency with the 2008 SNA. Such consistency will be all the more important if projects for (financial and non-financial) sector accounts take shape over the years to come.

325. A final recommendation relates to semantics: "public sector", "general government" and "central government" are well-defined notions that should be used appropriately to avoid confusion in international comparisons but also nationally as public sector debt data are developed.

## 5. Supply-and-use tables

326. In 2016, the OECD started an official collection of supply-and-use tables, primarily to support the OECD-WTO Trade in Value Added (TiVA) initiative. This section presents an overview of the relevant tables and assesses the compliance of INDEC with regard to these tables.

### 5.1. Coverage

327. The data collection for supply-and-use tables consist of various tables. The main tables concern annual information on the supply and use of products broken down into types of products and industries. Countries are requested to provide this information on a regular annual basis, but at least every 4 to 5 years, in current prices and, if possible, in previous years' prices as well. The basic information in the Use table captures transactions in purchasers' prices, but countries are encouraged to also provide this information in basic prices if feasible.

328. In addition to the main supply and use tables, for those countries that are able to provide use tables in purchasers and basic process, detailed tables, e.g. on trade and transport margins, and taxes less subsidies on products are also requested.

329. The coverage of Argentinian data is assessed against the scope of the requirements for the main supply and use tables. This concerns the following two tables :

- Table 1500: Supply table at basic prices, including a transformation into purchasers' prices.
  - A supply table is available for the benchmark year 2004. It is available in basic prices and also includes a transformation into purchasers' prices. The level of detail includes 162 branches and 271 products. No results are available for periods after 2004 as reliable input data were lacking.
- Table 1600: Use table at purchasers' prices
  - A use table is available for the benchmark year 2004. The results are presented in purchasers' prices.. No results are available for periods after 2004 as reliable input data were lacking. The table covers most of the requested information, but the part relating to value added has been completed.



## 5.2. Compliance

330. The supply-and-use tables are estimated following Chapter 14 of the 2008 SNA. The industries are classified by ISIC Rev. 4 and the corresponding CPA classification.

331. The following deviations from OECD requirements are noted below:

- Information on the breakdown of value-added into its core components (i.e. “Compensation of employees”, “Other taxes on production minus other subsidies on production”, “Operating surplus and mixed income, gross”, and “Mixed income, gross”) is only available at the one-digit ISIC level. Furthermore, information is missing on the components “Wages and salaries”, “Consumption of fixed capital”, and “Operating surplus and mixed income, net”. INDEC is encouraged to expand the coverage to all relevant components.
- For the supplementary items, INDEC only has information available on “total employment, persons” and “employees, persons” at the one digit ISIC level and not for the other supplementary items (i.e. gross fixed capital formation, stocks, and employment data in hours). It should be noted that several other countries are also lacking information for this specific block. However, the National Accounts Team of INDEC is currently working on the estimates of employment data in hours, which is expected to be published during the first semester of 2020.
- Valuables are not included in Gross Capital Formation.
- Consumption is disaggregated by private consumption, which includes both expenditures by households and non-profit institutions serving households (NPISH), and public consumption which includes both individual and collective final consumption expenditures of the government. It should be noted that this is also the case for several other countries.

## 5.3. Methodology

332. The supply-and-use tables for 2004 have been compiled on the basis of various data sources, amongst others the Economic Census 2004, a specific SUT survey, a household expenditure and income survey, a permanent household survey, and administrative data. With the arrival of the new team of national accountants in 2016, a first task consisted in reviewing the estimates for the benchmark year 2004. A number of corrections were brought to the level estimates at current prices. In the vast majority, these were downward revisions, many of which corrected for excessive adjustments for the NOE in the original series (they account for nearly half the overall downward corrections).

333. Significant corrections also occurred in transportation services and education services industries where government subsidies on products had incorrectly been reflected in the value of production at basic prices. Corrections were also made to the growth rates of volume GDP for the subsequent years. The revised data reflect to a large extent the use of different sources.

334. INDEC intends to construct a new base year on the basis of the results of the new Economic Census 2020/2021. From then, they will start working on chain-linked series and SUTs will be compiled on an annual basis.

## 5.4. Metadata

335. No metadata are available online, except information on the methodology and the data. This information is available online.<sup>53</sup>

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<sup>53</sup> [https://www.indec.gov.ar/ftp/cuadros/economia/metodologia\\_21\\_cuentas\\_nacionales.pdf](https://www.indec.gov.ar/ftp/cuadros/economia/metodologia_21_cuentas_nacionales.pdf) and

### ***5.5. Timeliness, data and metadata transmission***

336. Supply-and-use tables are only available for 2004. Data are available online on the website of INDEC.<sup>54</sup>

### ***5.6. Overall assessment***

337. Supply and use tables are currently only available for the benchmark year 2004. It is important that INDEC moves to a more recent benchmark year as soon as possible (and preferably an annual production timetable), as a lot of information on the economic structures and expenditure patterns in the economy will be outdated, whereas the tables are still used for the compilation of current GDP estimates..

338. The supply-and-use tables comply to a large extent with the international guidelines and the OECD requirements. However, at the detailed level some inconsistencies can be observed between the supply and use of products and between the value added at quarterly and at annual level. It should be explored what is causing these inconsistencies and how they can be solved in the compilation of results for a new benchmark year.

339. INDEC currently only publishes results on the supply and use of products in purchasers' prices. It should be explored whether it is feasible for INDEC to also start compiling results as collected in the other tables of the data collection on supply-and-use information.

### ***5.7. Recommendations***

340. One of the most important recommendations is for INDEC to start compiling supply and use tables for a more recent benchmark year as soon as possible, on the basis of a broad set of up-to-date data sources. The most important in this regard are the business register, an economic census, a household budget survey, budgetary information from government entities and relevant administrative data sources. Because of the importance of regularly updating supply-and-use information, INDEC should also develop a medium-term strategy for the regular compilation of these results, including an overview of the requirements with regard to the various input data sources. In addition to an overview of data sources that may already be available, this should also include an overview of additional data sources that need to be explored to further improve the quality and the robustness of the results. This could for example relate to specific administrative data sources that are currently not available to INDEC and to additional requirements with regard to existing surveys.

341. When compiling supply-and-use tables it is important to address the caveats that have been noted with regard to the 2004 results. In some cases this requires exploring the underlying causes for inconsistencies between the tables. In case these caveats relate to missing information, INDEC is encouraged to explore the possibility of additional data sources.

342. Regarding estimates of the NOE, NOE adjustments should be made by type of non-observability (N1 – N7), for the next benchmark year estimates. INDEC has indicated that it will examine whether such a breakdown can be developed.

343. In the medium term, it can be explored whether the missing tables of the OECD data collection scheme could also be included in the compilation programme.

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[https://www.indec.gov.ar/nivel4\\_default.asp?id\\_tema\\_1=3&id\\_tema\\_2=9&id\\_tema\\_3=114](https://www.indec.gov.ar/nivel4_default.asp?id_tema_1=3&id_tema_2=9&id_tema_3=114)

<sup>54</sup> [https://www.indec.gov.ar/nivel4\\_default.asp?id\\_tema\\_1=3&id\\_tema\\_2=9&id\\_tema\\_3=114](https://www.indec.gov.ar/nivel4_default.asp?id_tema_1=3&id_tema_2=9&id_tema_3=114)

## CHAPTER 4. PRICE STATISTICS

### 1. Introduction

344. This chapter presents a review of Argentina's statistics on prices conducted in the light of the objective of the OECD's Price Statistics Programme, which is to disseminate core series on prices that are comparable between countries, analytically useful, timely and available for period as long as possible. The chapter focuses on the Consumer Price Index (CPI), the Producer Price Index (PPI), Residential Property Price Indices (RPPI) and Purchasing Power Parities (PPPs).

345. In Argentina, price statistics are produced by INDEC in accordance with Law No.17622 of 1968.

346. The assessment and recommendations presented in this chapter are based on the data and the complete metadata (in English and in Spanish) provided by INDEC via OECD questionnaires in July 2018, and the documentation obtained through a fact-finding mission to Argentina in April 2018.

347. The questionnaire, which assessed the compliance, coverage, timeliness and interpretability of CPI and PPI statistics, comprised three parts. The first part sought basic methodological information on how price indices are constructed. Questions were formulated with reference to the International CPI Manual and the International PPI Manual. More specifically, the following areas were examined:

- i. Concepts and scope of the index;
- ii. Expenditure weights and their sources;
- iii. Sampling and price collection;
- iv. Other key statistical issues;
- v. Index calculation;
- vi. Dissemination and accessibility; and
- vii. Accessibility and update of metadata.

348. The second part of the questionnaire collected information on the availability of the series that the OECD Statistics and Data Directorate (SDD) collects on a monthly basis. For some CPI time-series (energy, housing, services less housing, and core inflation), a special aggregation from sub-items is required.

349. The third part of the questionnaire was designed to collect the data themselves, including historical series.

350. INDEC has been very helpful in actively contributing to the review process. INDEC satisfactorily completed all the questionnaires and provide a rich and appropriate documentation.

### 2. Consumer Price index and Producer Price Index

#### 2.1. OECD data and metadata requirements for CPI and PPI

##### 2.1.1. Coverage – CPI

351. Every month, SDD publishes CPI time series as part of its reporting system, and also through the OECD CPI News Release (which is issued on the last Friday of each month). These series are considered

CPI target indicators and are compiled with the aim of showing comparable CPI data across countries in terms of analytical use, timeliness and availability.

352. The twenty-five CPI target series are defined following the COICOP Classification:

- CPI All items – COICOP 01 to 12;
- CPI All items less Food less Energy (Core inflation) – COICOP 01-12 less COICOP 01. 04.5 & 07.2.2;
- CPI Energy – COICOP 04.5 & 07.2.2;
- CPI Services;
- CPI Goods;
- CPI Services less Housing – Services less COICOP 04.1, 04.2 & 04.3.2.
- CPI Housing – COICOP 04.1, 04.2 & 04.3;
- CPI Food and non-alcoholic beverages – COICOP 01;
- CPI Alcoholic beverages, tobacco and narcotics – COICOP 02;
- CPI Clothing and footwear – COICOP 03;
- CPI Housing, water, electricity, gas and other fuels – COICOP 04;
- CPI Actual rentals for housing – COICOP 04.1;
- CPI Imputed rentals for housing – COICOP 04.2;
- CPI Maintenance and repairs of the dwellings – COICOP 04.3;
- CPI Water supply and miscellaneous services relating to the dwelling – COICOP 04.4;
- CPI Electricity, gas and other fuels – COICOP 04.5;
- CPI Furnishing, household equipment and routine household maintenance – COICOP 05;
- CPI Health – COICOP 06;
- CPI Transport – COICOP 07;
- CPI Fuel and lubricants for personal transport equipment – COICOP 07.2.2;
- CPI Communication – COICOP 08;
- CPI Recreation and culture – COICOP 09;
- CPI Education – COICOP 10;
- CPI Restaurants and hotels – COICOP 11;
- CPI Miscellaneous goods and services – COICOP 12.

353. Some countries provide the OECD only with the component series of the CPI target indicators. In order to publish comparable series and to calculate zone aggregates, the OECD then computes CPI target indicators using weights and component series provided by the national statistical office. This is particularly frequent for the series CPI Energy and CPI All items less Food less Energy.

354. The Secretariat calculates monthly CPI zone aggregates including all OECD member countries and labelled OECD-Total for the four following CPI target series: CPI All items, CPI Food, CPI Energy and CPI All items less food less energy. These CPI zone aggregates for OECD-Total are shown with time series starting in January 1970. The OECD-Total refers to all OECD countries from January 1995; prior 1995 some OECD countries are not covered.

355. The Secretariat requests as long a time series as possible of historical CPI data (the best would be from January 1970 with a minimum required length from January 1995) and maintains CPI series from 1970 or earlier for most countries. Moreover, it is recommended that countries disseminate all CPI series with a fixed common reference period on their website in English.

### *2.1.2. Coverage – PPI*

356. Only a limited number of output PPI series are collected by SDD, in particular the service sector is not covered. The choice of these series is governed by analytical usefulness, comparability and availability in a majority of OECD countries. The scope and compilation practices of PPI series vary between countries to a much greater extent than with the CPI. To accommodate these different practices in the OECD member countries, thirteen time series have been defined as targets. For each series, two variants exist: PPIs over goods delivered to all domestic and foreign markets ('total'), and PPIs for goods delivered to the domestic market only ('domestic'). Each of the 13 target series belongs to one of the three different categories of PPIs, as detailed below.

357. The first category is defined around economic activities and provides an industry dimension. PPIs are grouped with regard to the higher level of the ISIC Rev.4 classification (section B to N) which classifies producer units according to their kind of activity, mainly on the basis of the principal class of goods produced or services rendered. The series considered are as follows:

PPI by Economic Activity for both total and domestic markets:

- Total industry (ISIC Rev.4, Sections B, C, D – corresponding to NACE Rev. 2, Sections B, C, D);
- Mining and quarrying activities (ISIC Rev.4, Section B – corresponding to NACE Rev. 2, Section B);
- Manufacturing (ISIC Rev.4, Section C – corresponding to NACE Rev. 2, Section C);
- Manufacture of food and beverages products (ISIC Rev.4, Section C10 – corresponding to NACE Rev. 2, Section C10).

358. The second category of PPIs classifies producer prices by similarity of end use or material composition, without regard to the industry of origin. This set of PPIs has been defined in terms of Main Industrial Groupings (MIGS) which provide a breakdown of a group of industries (Sections C to E inclusive of ISIC Rev. 4 classification) by type of use. They are listed below.

PPI by Type of Commodity for both total and domestic markets:

- Consumer goods;
- Durable consumer goods;
- Non-durable consumer goods;
- Investment goods;
- Intermediate goods;
- Energy.

359. The third category of PPI is defined by stage of processing. This structure classifies goods and services according to their position in the chain of production.

PPI by Stage of Processing for both total and domestic markets:

- Primary products - Raw (or unprocessed) materials;
- Intermediate goods;
- Finished goods.

360. PPIs by stage of processing are only available for five non-European OECD countries: Australia, Canada, Japan, Korea and the United States. European countries generally provide PPIs by economic activity and by type of commodity. It is not always possible for countries to supply PPI data for both the domestic and total markets.

361. The Secretariat calculates monthly PPI zone aggregates including all OECD member countries and labelled OECD-Total for the PPI target series Domestic PPI for Manufacturing. This PPI zone aggregate for OECD-Total is shown with time series starting in January 1982. The OECD-Total refers to all OECD countries from January 1995; prior 1995 some OECD countries are not covered.

362. The Secretariat requests as long a time series as possible of historical PPI data (the best would be from January 1970 with a minimum required length from January 1995 for Domestic PPI for manufacturing) and maintains PPI series from 1970 or earlier for most countries. Moreover, it is recommended that countries disseminate all PPI series with a fixed common reference period on their website in English.

### *2.1.3. Compliance – CPI and PPI*

363. The points of reference for the methodological assessment, or “compliance”, are the international standards. In particular, the current international guidelines and recommendations for the compilation of CPI are those adopted by the Seventeenth International Conference of Labour Statisticians held in Geneva in December 2003. The “Consumer price index manual: Theory and practice<sup>55</sup>”, (hereafter referred to as the International CPI Manual) was jointly produced by the International Monetary Fund (IMF), the OECD, the International Labour Organisation (ILO), the Statistics Office of the European Commission (Eurostat), the United Nations Economic Commission for Europe (UN-ECE) and the World Bank, in 2004. The basic reference for PPIs is the 2004 “Producer price index manual: Theory and practice<sup>56</sup>” (hereafter referred to as the International PPI Manual), also produced by the IMF, OECD, ILO, UN-ECE and World Bank.

### *2.1.4. Interpretability (Metadata requirements) – CPI and PPI*

364. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible on the internet.

365. For prices statistics, the OECD requires information on the concepts and scope of the index, expenditure weights and their sources and sampling, price collection and index calculation methods.

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<sup>55</sup>ILO/IMF/OECD/UNECE/Eurostat/The World Bank, “Consumer price index manual: Theory and practice”, Geneva, International Labour Office, 2004. <http://www.ilo.org/public/english/bureau/stat/download/cpi/prefcpi.pdf>

<sup>56</sup>ILO/IMF/OECD/UNECE/Eurostat/The World Bank, “Producer price index manual: theory and practice”, Washington, D.C., International Monetary Fund, 2004. <http://www.imf.org/external/pubs/ft/ppi/2010/manual/ppi.pdf>

### *2.1.5. Timeliness – CPI and PPI*

366. All CPI series required by the OECD for the monthly ‘OECD Consumer Price Index press release’ should be made available on a timely basis in order to meet the schedule of the News Release, which is usually finalised the last Friday of the month following the reference month (i.e. between the 26th and 31st day of the month).

367. In terms of timeliness requirements for PPI, it is important that countries provide data or that data be available at the same time or immediately after they are released nationally. Ideally, PPI data should be made available within one month after the reference period.

368. It is also recommended that fixed and unchangeable release dates for the CPI and PPI be published in English at least 12 months in advance. Such advance announcements ensure transparency and strengthen the perception of objectivity of the data dissemination.

### *2.1.6. Data and metadata transmission – CPI and PPI*

369. The Secretariat very much encourages countries to participate in the project to disseminate short-term economic statistics via SDMX. This approach will lessen the burden of data transmission for countries and for the OECD.

370. Methodological information on both CPI and PPI target time-series should be transmitted by countries in the OECD questionnaires. The Secretariat recommends that all metadata be made available, in English, on the internet to strengthen transparency and facilitate the use of the price statistics by external users.

## ***2.2. Evaluation of the Consumer Price Indices (CPI) of Argentina***

371. In accordance with the Law No. 17622, INDEC is responsible for the compilation and dissemination of the CPI in Argentina. The history of the Argentinian CPI in the last years :

- Following the declaration of a state of administrative emergency in the NSS issued on 7 January 2016, INDEC suspended publication of CPI data and started work to resolve serious issues which had arisen in sampling and other aspects of data collection. Collection methods are gradually being rebuilt to improve quality.
- Having made important progress on specified actions regarding procedures for data collection, processing, development and dissemination, INDEC commenced publishing, in June 2016, new CPI series with base April 2016=100 but with a coverage limited to the area of the Gran Buenos Aires (GBA), which includes Buenos Aires and 24 entities of the agglomeration. This series was, in spite of its limited coverage, considered to be in line with international standards by the Executive Board of the International Monetary Fund (IMF).
- In July 2017, the Argentinian statistical authorities published a new national CPI (December 2016=100) covering the whole country, starting from December 2016 and following the COICOP classification.

372. The new index follows the recommendations of both the International Labour Organization (ILO) and the System of National Accounts (SNA) and builds on work carried out for the CPI for Greater Buenos Aires Area (CPI-GBA) and the previous IPCNu (Indice de Precios al Consumidor Nacional urbano). This new index represents a significant improvement over the previous ones, with an extended geographical coverage (thirty-nine urban areas over the whole country) and the use of COICOP classification (twelve

divisions, thirty-nine groups, eighty-one classes). This index is now used in the compilation of G20 aggregate price index.

### *2.2.1. Coverage - CPI*

373. CPI time series for Argentina according to COICOP classification covering thirty-nine urban areas in all Argentinian provinces and the Gran Buenos Aires area are available on the INDEC website since July 2017. The data are published in the form of indices expressed with December 2016 = 100. Time series are published according to the COICOP classification and begin in December 2016. However, the level of detail published by INDEC covers only twelve COICOP divisions in addition to the CPI Goods, CPI Services, and CPI All items. As a result, the following OECD target series are not available:

- COICOP 04.1 - Actual rentals for housing
- COICOP 04.2 – Other actual rentals
- COICOP 04.3 – Maintenance, repair and security of the dwelling
- COICOP 04.3.2 – Services for the maintenance, repair and security of the dwelling
- COICOP 04.4 – Water supply and miscellaneous services relating to dwellings
- COICOP 04.5 – Electricity, gas, and other fuels
- COICOP 07.2.2 – Fuel and lubricants for personal transport equipment.

374. OECD also collects annual detailed expenditure weights for the CPI. This information is not available on the INDEC website. Argentina is encouraged to publish information on CPI weights.

375. Overall, the coverage is satisfactory but should be improved by adding the missing OECD CPI targets. The length of the series remains however an issue especially when it comes to calculate CPI for groups of countries.

### *2.2.2. Compliance – CPI*

376. Counting the new series with base December 2016=100, there have been at least four generations of CPIs. The previous were 1) CPI for the Greater Buenos Aires Area, CPI-GBA, with base April 2008=100 but with data back to January 1943; and 2) the IPCNu with base October 2013-September 2014=100 and data from December 2013 to December 2014 and 3) CPI-GBA with base April 2016=100. For methodological reasons the newly released series of CPI data (December 2016=100) cannot be directly compared with IPCNu and CPI-GBA data.

377. The Argentinian CPI meets the OECD requirements in terms of geographic coverage but as already mentioned the length of the series represents a major weakness for the Argentinian CPI.

378. This aside, the new monthly series has been compiled to comply with the concepts, definitions and recommendations set by the ILO recommendations and the International CPI Manual. In particular it:

- follows COICOP classification which is consistent with international guidelines. At the time of the review, COICOP was in the process of being adapted with the addition of three digits reflecting national specifications for expenditure and consumption in Argentina. This national adaptation will be used following the development of the new goods and services basket from the ENGH0 2017-18 and a correspondence table will be developed;



- covers the entire resident population of the country including persons living in institutional households (social care institutions, children’s homes, prisons, etc.). The CPI does not cover non-resident household expenditures, which is in line with international practices;
- uses detailed expenditure data from the National Household Income and Expenditure Survey (ENGH) 2004-2005, in line with international practice; however, the age of the 2004-2005 ENGH data remains an issue;
- is based on a sample of approximately 350 000 prices collected on a monthly basis among the 609 elementary groups (varieties) of goods and services taking into account their weights and the variations in their prices. There are periodic reviews on the list of respondents and characteristics of a product; the sample of outlets is continuously increasing. However, INDEC has identified deficiencies in sampling frames of outlets or economic units. Therefore, the outlets sample is not probabilistic but is based on limited lists of outlets from shopping areas. International standards give preference to probabilistic sampling techniques but recognize that in some cases non-probabilistic methods have to be used;
- incorporates important efforts to get closer to the international standards on price collection. Price collection is currently conducted every working day of the month. In the case of hypermarkets, price collectors visit each outlet twice a month, while in traditional outlets price collection is done once a month. The price collection is made through in-person surveys, where data collectors visit each outlet in the sample every month. In some particular cases, the survey is done via phone or email interviews. This is the case for health insurance companies, mobile telephone services, car insurance, entertainments (cinema, theatres, museums), among others. In some cases, phone interviews for the rental housing sample are allowed if the tenant asks for that option;
- treats specific expenditure groups such as durable goods (according to net purchase value from their sales or barter recovery regardless of useful life) and insurance (including vehicle insurance) in accordance with international recommendations;
- estimates elementary price indexes by using the geometric means of price relatives;
- uses a Laspeyres-type formula to aggregate across elementary price indexes for higher level aggregates, in line with international practice;
- treats missing prices in line with international recommendations: the missing price is imputed by reference to the average price change for the prices that are available in the elementary aggregate (overall mean imputation);
- specification pricing is used for replacement items. All price-determining characteristics are included in the specification. If the replacement item is comparable, its price will be compared directly with the price of the missing item. If the replacement item is non-comparable, an adjustment is necessary to estimate the contribution of the changed quality to the change in the observed price;
- only introduces a new class of products when a new base year is implemented. This is in line with paragraph 28 of the ILO Resolution which advises that “completely new types of goods and services should normally be considered for inclusion (in the index) only during one of the periodic review and re-weighting exercises”;

- collects market prices including sale prices, taxes and discounts<sup>57</sup>;
- captures quality changes using implicit methods.

379. However, some methodological issues arise. In particular:

- CPI weights, derived from the 2004-05 ENGHO, are more than ten years old which is not in line with international recommendations. The new CPI series uses weights from the 2004-05 ENGHO, thus assuming that the consumed quantities remain constant and updating the prices between the 2004-2005 reference period and December 2016. This is above the maximum delay recommended by the international community before revising CPI weights; however, INDEC has announced that the weights will be updated from the results of the National Household Income and Expenditure Survey 2017/18 to be published in 2019, which is fully supported by the OECD;
- The frequency of weighing updates beyond the ENGHO in 2017-18 is not set yet. It should be noted that international guidelines recommend a five-year frequency for weighting revisions. Normally, updating of CPI weights in Argentina is associated with the conducting of a new expenditure survey. At the time of the review, efforts were devoted to the design and implementation of the 2017/2018 Expenditure Survey, given the shortcomings identified in the previous survey carried out in 2012/13. Maintain the frequency of updates of ENGHO so that they do not exceed five years is strongly recommended.
- While rental housing is included, Owner Occupied Housing (OOH) is excluded. An attempt has already been made to survey house owners on the value of their property; with little success, however. A common strategy with the National Accounts for estimating OOH is now under discussion. A common approach towards the treatment of owner-occupied housing in national accounts, price statistics and income distribution is highly recommended.
- Own-account production is not considered in the compilation of the CPI.
- Second-hand goods are not included in the weights of the CPI basket, nor in the collection of price quotations, which is not in line with international recommendations. They are not included in the CPI because their prices cannot be observed regularly. One reason is that the market for second-hand goods in Argentina is difficult to observe: sales are usually made by individuals through websites and it is difficult to account for the state of the goods (and therefore their quality at the time of sale). Something similar happens with second hand cars, although there are businesses dedicated to this segment: the major difficulty is to determine the quality of the vehicles offered.
- INDEC decided to apply the fixed weight approach to treat seasonal items, a choice made in a context of high inflation. According to a study carried out by INDEC in 2005, there are only few groups of items that present seasonality: fruit, vegetables, outerwear, transportation, and tourist accommodation. In some cases, seasonality is manifested by price fluctuations that are reversed in the short term. In other cases, there is a lower or no supply of these items during certain months of the year. In the case of missing prices, these are imputed based on the relative price of other items belonging to the same grouping. For instance, in those months where there are no strawberries for sale, the elementary index will evolve similarly to other fresh fruit. INDEC is encouraged to consider moving to a variable weight approach when the level

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<sup>57</sup> Refunds are not considered.

of inflation will be lower, in order to better reflect reality and further comply with international recommendations applied in most OECD Members.

- Goods and services that are sold illegally are not taken into consideration when compiling the CPI.
- Financial transactions are not considered in compiling the CPI.

380. Despite these issues, the OECD believes that the new Argentinian CPI generally complies with the concept, definitions and recommendations of the ILO and the International CPI Manual. However, further improvements are required, especially regarding the length of the time series, the weights and the treatment of owner-occupied housing.

### *2.2.3. Interpretability (metadata requirements) - CPI*

381. The methodological document “Índice de Precios al Consumidor Gran Buenos Aires”<sup>58</sup> presents details of the methodology used in compiling the index. It is available on INDEC’s web site but, at this stage, only in Spanish and is still preliminary. However, a brochure “What is the Consumer Price Index?”<sup>59</sup> is available on the INDEC website in both English and Spanish.

382. INDEC could consider publishing complete methodological information on the National Price Index at least in Spanish.

383. Comprehensive methodological information is accessible in English on the Special Data Dissemination Standard (SDDS) page of the IMF website.

384. CPI weights are published in the monthly CPI Press Release on INDEC’s website, in Spanish only.

385. Methodological changes are announced in Spanish through press conferences, meetings with specialized users and through technical reports available on INDEC’s website.

### *2.2.4. Timeliness, data and metadata transmission*

386. INDEC publishes the CPI between the tenth and twelfth working day of the month following the close of the reference month. The revision cycle has not been determined yet. In the future, whenever a methodological change is made in the index, an announcement will be made to the users and a methodological document will be presented detailing the scope of the changes.

387. INDEC publishes monthly data aggregated for the total country and by region (Cuyo, Greater Buenos Aires Area, North-east, North-west, Pampas and Patagonia).

388. The following information is published: (1) the monthly change in the overall CPI; (2) the monthly change in twelve COICOP Divisions; (3) the monthly change in the price index for goods and services; (4) the monthly change in the price index for seasonal items, regulated and administered items and core inflation; and (5) average prices for a sample of fifty-nine homogeneous items of the CPI-GBA and fourteen homogeneous items for each region.

389. The release timetable is available on INDEC’s website. No one outside INDEC has access to the index prior to its release.

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<sup>58</sup> [https://www.indec.gob.ar/ftp/cuadros/economia/ipc\\_metodologia19\\_agosto2016.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/ipc_metodologia19_agosto2016.pdf)

<sup>59</sup> [https://www.indec.gob.ar/ftp/cuadros/economia/metodologia\\_ingles\\_ipc\\_nacional\\_05\\_17.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metodologia_ingles_ipc_nacional_05_17.pdf)

390. INDEC more than meets OECD timeliness requirements. In particular, it is in line with the OECD CPI publication and press release monthly schedule.

391. The CPI Data are presented in a technical report, made available to users through INDEC's website. The main results are also disseminated through an infographic published in the official Twitter account of the institute. These results correspond to the monthly variation of the General Level of CPI, along with the monthly variation for additional aggregates such as core inflation, seasonal items, and regulated or administered price items. Furthermore, the data are included in the monthly publication, *INDEC Informa*, a general compilation of the results of the different indicators published by INDEC which includes results from CPI.

392. Since July 2017, the OECD collects the CPI series for Argentina according the COICOP classification directly from the website of INDEC on a monthly basis, at the date of their national release. CPI data for the current month is published in an excel file.<sup>60</sup>

### *2.2.5. Overall assessment and recommendations*

393. Overall, Argentina meets international methodological standards and OECD requirements for the CPI series in terms of coverage and compliance, and fully meets its requirements for timeliness. Data and metadata are easily accessible on the website of INDEC.

394. However, the review identifies several areas that INDEC would need to consider further in the future both for meeting the OECD requirements for CPIs in terms of coverage and for compliance with international standards. High priority should be given to update weights, ensure that the frequency between two successive ENGHO surveys will not exceed five years, and produce a plan for the implementation of a new base year using the results from the last ENGHO survey. INDEC is also encouraged to consider means to produce CPIs for all the COICOP divisions and to improve the length of the CPI series and to move towards a common approach with national accounts and income distribution statistics for the treatment of owner-occupied housing.

395. At the time of the review, prices were collected by the statistical offices in provinces and specific agreements with INDEC were required to ensure that appropriate procedures and methods were in place. While the six regional offices INDEC recently created had not yet played a significant role, they offer the opportunity to improve the efficiency of existing data collection processes.

### **2.3. Evaluation of the Producer Price Indices (PPI) of Argentina**

396. INDEC has a Wholesale Price Index System (SIPM), which includes three indices: the wholesale internal price index (IPIM), the wholesale basic internal price index (IPIB) and the basic producer price index (IPP):

- The IPIM measures the average change of prices at which producers and/or direct importers sell their products in the domestic market. It includes value added tax (VAT), domestic taxes and fuel taxes net of explicit subsidies.
- The IPIB measures the average change of prices at which producers and/or direct importers sell their products in the domestic market, but these prices do not include the taxes calculated in the IPIM.
- The IPP measures the average change of prices perceived by local producers, not direct importers who are included in the IPIM and the IPIB, and excluding the taxes calculated in

<sup>60</sup> [https://www.indec.gov.ar/ftp/cuadros/economia/sh\\_ipc\\_01\\_19.xls](https://www.indec.gov.ar/ftp/cuadros/economia/sh_ipc_01_19.xls)

the IPIM. Additionally, the weight of each activity in the IPP includes local producers' exports; prices are not currently differentiated by local market and exports for each product, although INDEC is working towards this aim. The IPP is the index that is most similar to OECD requirements.

### *2.3.1. Overall assessment and recommendations*

397. In order to meet the OECD requirements, INDEC is strongly encouraged to move ahead with plans for the development of producer price indices for both domestic and total markets (including export) including the compilation of producer price indices for Services (SPPI).

### **3. Residential Property Price Index (RPPI)**

398. At the time of the review, there was no RPPI for Argentina, mainly due to difficulties for INDEC in accessing harmonised administrative sources. Information on housing permits and construction costs is available, but in various formats across provinces, either in land registers or in property registers. This represents a major challenge that INDEC will need to face in the compilation of RPPIs, especially as the available information does not allow to distinguish between residential and non-residential construction. This information would need to be further harmonised to be appropriate for statistical purposes, but the statistical legislation does not provide INDEC with sufficient authority to ensure the most efficient standardisation of this information for the compilation of RPPIs.

399. In order to meet the OECD requirements in terms of coverage and compliance, INDEC is encouraged to:

- Develop a plan to compile RPPI; and,
- Ensure that the future indices will comply with the Eurostat Handbook on Residential Property Price Indices (RPPIs)

400. INDEC's capacity to compile RPPIs could be considerably improved if the amended Argentinian statistical legislation were to invest it with sufficient authority to influence the design and quality of administrative data to ensure they are fit for statistical purposes.

401. By mid-2019, INDEC was at the experimental stage of data analysis and consistency for the development of an RPPI for the City of Buenos Aires. The Institute had achieved access to database information from one of the largest property listings enterprises through the most important website in the Autonomous City of Buenos Aires. This included data on prices, square metres, number of rooms and location, among others. Additionally, with the Immoveable Property Registry of the City of Buenos Aires INDEC may obtain the database of the transactions actually carried out there.

## CHAPTER 5. STRUCTURAL AND DEMOGRAPHIC BUSINESS STATISTICS

### 1. Introduction

402. The OECD Structural and Demographic Business Statistics (SDBS) database consists of three distinct but related datasets with data collected via Excel questionnaires: Structural Statistics for Industry and Services (SSIS); Business Statistics by Size Class (BSC); and Business Demography (BD). The SSIS and BSC data are collected in a single questionnaire.<sup>61</sup>

403. Business statistics broken down by size class are essential for improving our understanding of how economies work, particularly as in most economies most firms (well over 90%) are small and medium sized (SMEs). In particular, understanding the growth potential of these firms is vital for sound evidence-based policy-making to boost growth in the SME sector. While SMEs typically have lower productivity and pay lower wages than comparable larger firms (*Entrepreneurship at a Glance*, OECD, 2017<sup>62</sup>), especially with the right level of policy support, they may be able to overcome some of the intrinsic barriers that their size presents. Indeed, OECD Business Demography statistics show that significant numbers of high-growth enterprises and “gazelles” (young high-growth enterprises) in many countries are beginning to capitalise on opportunities presented both by digitalisation, to increase scale without mass, and by globalisation, via integration into global value chains.

404. In Argentina, the production of Business Statistics is regulated through Law No. 17622, decrees 3110/70 and 1831/93, and provision 176/99. The legislation regulates the functions of INDEC and establishes its responsibility for the production and dissemination of SDBS statistics. This chapter assesses the quality of INDEC’s data on SDBS. It is based on information in English and Spanish provided by INDEC in response to the two OECD questionnaires described above and on the documentation obtained through the fact-finding mission. At the time of the review, the only source for business statistics in Argentina was the National Survey of Large Enterprises (ENGE, in its Spanish acronym).

### 2. OECD data and metadata requirements for SDBS

405. The OECD SDBS consists of three datasets: Structural Statistics for Industry and Services (SSIS); Business Statistics by Size Class (BSC); and Business Demography (BD).<sup>63</sup> The OECD requirements for these datasets are summarised below and additional detailed information on variables, definitions and methodological standards presented in Technical Documents have been made available to Argentina.<sup>64</sup> These definitions are consistent with international practices though there are no standard international reference manuals specifically for SSIS and BSC. For business demography, the definitions provided are based on the Eurostat-OECD Business Demography Statistics Manual.<sup>65</sup>

- For the enterprise size-class breakdown in the BSC questionnaire, the employment size classes are: 1-9, 10-19, 20-49, 50-99, 100-199, 200-249, 250-499, 500-999 and over 1000. However, if this

<sup>61</sup> <https://www.oecd.org/statistics/data-collection/SDBS%20questionnaires%20ISIC4.zip>

<sup>62</sup> <http://www.oecd.org/sdd/business-stats/entrepreneurship-at-a-glance-22266941.htm>

<sup>63</sup> The SSIS is in fact included in the BSC, as the latter contains breakdowns of the SSIS database by size class.

<sup>64</sup> <http://www.oecd.org/statistics/data-collection/>

<sup>65</sup> <https://www.oecd.org/sdd/business-stats/eurostat-oecdmanualonbusinessdemographystatistics.htm>

detail is not available, the OECD strongly recommends the following second-best breakdown: 1-9, 10-19, 20-49, 50-249, >250.

- Value added should be valued at factor cost.
- Business demography statistics should refer to “employer enterprises”, i.e. enterprises with at least one employee.
- The Secretariat requests monetary variables in millions of national currency units, employment variables in numbers of persons employed, hours worked in thousands, and the number of enterprises or establishments in units.
- In 2010, ISIC Rev.4 became the new standard industry classification for SSIS, BSC and BD data collection from reference year 2008. As a consequence, information should be provided in ISIC Rev.3 at least until year 2007 and in ISIC Rev.4 from 2008. However, to ensure comparability over time and the overall quality of the database, the Secretariat strongly encourages countries to provide information in ISIC Rev.4 also for as many years as possible preceding 2008. Having one year of double reporting is the minimum requirement for the SDBS database to permit sound analysis of historical trends.
- If a country has not made the transition to ISIC Rev.4, plans and dates for the transition to Rev.4 should be provided to the OECD.

### ***2.1. Coverage Requirements for Structural Statistics for Industry and Services (SSIS)***

406. For the SSIS database, the Secretariat asks countries to provide annual information relating to the economic activity of industries at a very detailed level (3-digit or preferably 4-digit level). Variables include: employees and number of enterprises; turnover; value added; investment; wages and salaries. The complete list of variables required has been made available to Argentina. The Secretariat maintains SSIS data from at least the year 2000 for most countries. OECD Members are required to provide as long a historical series as possible; ideally, beginning in 2000 or earlier.

### ***2.2. Coverage Requirements for Business Statistics by Size Class (BSC)***

407. For the BSC database, the Secretariat asks countries to provide annual information relating to the economic activity of industries at a very detailed level (3-digit or preferably 4-digit level), broken down by employment size classes. Variables include: employees and number of enterprises; turnover; value added; investment; wages and salaries. The complete list of variables required has been made available to Argentina. The Secretariat maintains BSC data from at least the year 2000 for most countries. OECD Members are required to provide as long a historical series as possible; ideally, beginning in 2000 or earlier.

### ***2.3. Coverage Requirements for Business Demography (BD)***

408. The BD database contains information relating to business births, business deaths, business survival, high-growth enterprises and gazelles. The complete list of variables required has been made available to Argentina. The Secretariat maintains BD data from the year 2005 for most countries. OECD Members are required to provide as long a historical series as possible; ideally, beginning in 2005.

### 3. Evaluation of SDBS data of Argentina

#### 3.1 Coverage

409. INDEC provided information for all three datasets but, and as described in more detail below, the fact that information is currently sourced from a panel of only the top 500 firms means that the quality of data provided does not yet meet current OECD requirements, in particular in terms of coverage and interpretability.

##### *3.1.1. Business Demography statistics; annual*

410. Although INDEC has submitted information to the OECD, the data, based only on the top 500 firms, submitted in the Business Demography questionnaire does not correspond to the requirements of the Eurostat-OECD Manual on Business Demography Statistics,<sup>66</sup> which is the methodological basis for the OECD Business Demography data collection. At the time of the review, INDEC explained that the ENGE constituted the only source of the Business Demography data in Argentina. As such, the coverage and limitations of ENGE, but more importantly the lack of a comprehensive statistical business register, prevent a correct observation of Business Demography events like enterprise births and deaths and the remaining indicators that are linked with or stem from them.

##### *3.1.2. Business statistics by Size Class; annual, at current prices.*

411. INDEC has reported Business Statistics by Size Class (BSC) for 2012 to 2016 in size classes that do not correspond to the requirements of the questionnaire. For instance in size class “NSC-1”, which corresponds to the size class of 1-9 persons employed, INDEC has reported data for size class “Up to-699”. The new size class breakdown is based on the number of employees and not persons employed. Data are reported for 11 ISIC Rev. 4 sections (letter-level), 5 aggregates (B-E, G-N, B-N, I+L+M+O+R and A-U), as well as for some of the underlying, more detailed groups. The non-reporting of distinct industries I, L, M, O and R occurred due to confidentiality reasons, however the resulting aggregate provided by INDEC is incompatible with the list of ISIC Rev.4 aggregates used by the OECD.

412. Data for a number of variables have not however been provided: “number of establishments”; “number of female employees”, “number of employees in full time equivalent” and “hours worked by employees”.

#### 3.2. Compliance

413. The aim of the ENGE is to survey the economic activities of the largest 500 enterprises in the country<sup>67</sup>, covering all main economic sectors, except agricultural, financial and personal services.<sup>68</sup> The results are a permanent system of information that allows inter-annual analysis of the behaviour of the top business enterprises in Argentina, which is a basic input for the determination of macroeconomic aggregates

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<sup>66</sup> <http://www.oecd.org/sdd/39974460.pdf>

<sup>67</sup> Around 600 enterprises are surveyed annually, but the panel consists only of the largest 500.

<sup>68</sup> Panel enterprises’ main activities are in mining (9% of enterprises); manufacturing (55%); supply of electricity, gas, water, sewerage and waste collection (8%); construction (3%); wholesale and retail trade and repair of vehicles (9%); transportation, post and storage (6%); information and communication (5%); and administrative and support service activities (5%).



(amongst others National Accounts, Balance of Payments, regional statistics<sup>69</sup>). Similarly, the surveyed enterprises of the ENGE are the central core for the study of changes in the economic structure, such as processes of enterprise restructuring, technological modernisation, privatisation, foreign investment, foreign insertion and concentration.

414. The Survey programme dates back to 1994 when a Special Operation of Large Enterprises (OEGE) was conducted as part of the 1994 National Economic Census. This survey collected information from 2000 enterprises for the year 1993. Since 1995, the programme has continued with an annual survey for the 500 largest enterprises in the country (in 2016 covering 24.1% of total output in the economy and approximately 300 establishments).

415. The enterprise is used as the unit of observation, as it is considered the most adequate unit to link the information on the various variables. The survey asks for data at the level both of the enterprise as a whole and of all its underlying local units, focusing on important variables such as output, value added, employment, gross fixed capital formation, changes in assets and liabilities, and cross-border flows and positions. This provides a strong tool to obtain consistent and coherent results on all its economic activities, which is particularly important for large enterprises as they are usually involved in various production activities, may frequently be affected by restructuring, and often engage in large economic and financial cross-border transactions, particularly when they are part of a multinational enterprise.

416. The relevant enterprises are selected based on a pre-survey that is sent out to a large range of enterprises. As an up-to-date business register is not available and as INDEC currently does not have access to detailed administrative records, the group of enterprises included in this pre-survey is based on the 2004 census results and more recent information from news articles and specialized magazines. Furthermore, in some cases customs data are used to update the sample. The pre-survey includes information on number of employees, number of establishments and economic activity. The enterprises that are selected for the ENGE receive a full survey. Perhaps not surprisingly given the focus on the top 500 firms, the response rate of the ENGE is quite high compared to response rates in OECD countries that survey the entire population of firms, but it is on a par when one considers that, in many OECD countries, large firms are exhaustively covered every year. INDEC receives timely responses from 80% of the enterprises, with a few requesting an extension. The final response rate is 100%.

417. The selection criteria for inclusion in the ENGE panel are the following:

- Size: Sales and trade margins are used as an approximation of the output value. The latter is used to determine the size of the enterprises.
- Stability: Enterprises that are included in the panel for more than one period are not immediately removed once they no longer meet the parameters; this is only done when it is confirmed that this situation will remain.
- Multi-regional activity: Some enterprises that do not meet the initial size criterion may still be included in the panel as they perform activities in various jurisdictions that are difficult to capture at regional level.
- Continuity: Restructuring may lead to adjustments of the enterprises as included in the panel. In cases of take-over during the period, the data on the enterprise taken over must be reconciled with

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<sup>69</sup> By agreement, data have also been provided to research institutes, universities, business chambers and international organisations, amongst others.

the data of the remaining enterprise during the survey year in which both enterprises were independent.

418. Each year new enterprises enter the panel, either due to “births” (which in this case consist of reactivations, mergers and acquisitions, rather than a new combination of factors of production) or growth of existing enterprises (measured by turnover growth). There are also exits from the panel due to closures or reduction in size of existing enterprises. This may also involve the results of enterprise restructuring.

419. The ENGE survey includes three types of questionnaires: the enterprise questionnaire; the local unit questionnaire; and the industrial products questionnaire. The local unit questionnaire applies to productive and ancillary activities, collecting detailed information on income, expenditures, taxes, inventories, annual fixed capital flows and employees. The enterprise questionnaire includes an aggregated overview of the information as collected for its local units and asks for information on assets, foreign transactions and direct investment of the enterprise. The industrial products questionnaire collects information on quantities produced and sold, as well as turnover from industrial products. The questionnaire programme incorporates certain consistency checks that help the enterprise to correct any errors when completing the questionnaires or to justify any inconsistencies. During the analysis of the data, the questionnaire results are reconciled with information from financial statements, annual reports and supplementary notes, etc. In addition, data from various surveys (including the Industrial Production Index (IPI), Synthetic Indicator of Construction Activity (ISAC), Synthetic Energy Indicator (ISE), System of Wholesale Prices Index (SIPM), international services, etc.) is used.

420. The results of the ENGE are published in the form of tables related to the sequence of accounts as defined in the SNA, e.g. current accounts, capital accounts and closing balance of financial assets and liabilities. At the time of the review, results were available for the period 2012-2017. The information is also used to derive several economic indicators as well as the level of economic concentration on the basis of five economic variables. The main macroeconomic aggregates are presented by main activity sectors as well as by source of capital (domestically owned versus foreign owned).

421. In the near future, INDEC intends to expand the panel to 5000 and the data sources necessary to update the panel. Information on fixed capital stocks will be included in the analysis, as well as additional breakdowns of some of the current variables in accordance with the requirements of institutional sector accounts.

422. Although INDEC provided data based on the ISIC Rev 4 classification, as noted above, the data do not cover the whole economy. Results are derived from the ENGE, which since it covers only the largest 500 enterprises in the country, is not able to provide a view of the role of SMEs or of the underlying drivers of competitiveness and business dynamics. It is recommended that INDEC explore additional data sources, including surveys, and in particular develop a statistical business register, in order to obtain a comprehensive overview.

423. The absence of a statistical business register means that it is not currently possible to derive meaningful estimates of births and deaths of enterprises as described in the Eurostat-OECD Manual.

424. Even within the data provided for the top 500 firms, it should be noted that gross investment (GITG) estimates do not separately identify land.

425. Another issue arising from the fact that data are only collected for the top 500 firms is that it is not possible to populate data required for the OECD’s SSIS and BSC databases. For Business Statistics by Size Class, INDEC currently distinguishes “up to-699”, “700-999”, “1000-1299” and “1300 and over”, whereas the OECD uses the following standard size classes: “1-9 persons employed”, “10-19”, “20-49”, “50-249” and “250 and more” (allowing the following additional breakdowns “50-99”, “100-199” and “200-249” as well as for “250-499”, “500-999” and “1000 and more”).

### 3.3. Interpretability (Metadata requirements)

426. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible on the internet. For SDBS statistics, the OECD requires detailed information on the concepts and scope, classifications, reference units, sources and calculation methods.

427. Results of the ENGE are published in the form of technical reports<sup>70</sup> that also include background information on the survey.

### 3.4. Timeliness, data and metadata transmission

428. Publication of ENGE results usually takes place at the end of the calendar year following the reference year (i.e. t+12 months). For example, the results for the year 2017 were publicly made available in January 2019. While this timeliness compares favourably with practices in OECD Members, it at least partially results from the limited coverage of the ENGE survey. The publication is in the form of a report that contains overviews of the relevant results for the years from 2012, as well as definitions.

## 4. Overall assessment and recommendations

429. The data collection for business statistics in Argentina is methodologically very different from data collection in OECD countries. **As such, the data provided by Argentina do not correspond to the SDBS requirements either in terms of coverage, or in terms of definitions applied.** The most important shortcoming in this regard is that the results do not cover the economy as a whole but only the largest 500 enterprises in Argentina. Although this provides information on more than 20% of the economy, it is not sufficient to derive indicators of business demography as described in the Eurostat-OECD Manual on Business Demography Statistics. Nor is it possible to produce statistics reflecting the actual industrial structure of Argentinian businesses by the selection of size classes applied by the OECD. More specifically, the whole population of SMEs is missing. For this purpose, it would be important to construct an up-to-date business register (see chapter 2) and to start collecting information on the other enterprises in the economy, either via a sample survey or via the use of administrative data. An up-to-date business register will also help update the targeting of the largest enterprises in the country. This selection is currently partially based on outdated data sources, e.g. the economic census 2004.

430. When looking at the current compliance on the basis of the data for the 500 largest enterprises, data are coherent in terms of economic sectors, but there are still several deviations from the OECD requirements. In updating the structural and demographic business statistics to broaden the scope to the full economy, INDEC is recommended to address these issues and to fully align its data transmission to the data requirements defined in the OECD questionnaires.

431. The main recommendation with regard to the structural and demographic business statistics is to broaden their scope to cover the full economy. For this purpose, it would be important to construct an up-to-date business register and to start collecting information on the other enterprises in the economy, either via a sample survey or via the use of administrative data. In this regard, the current initiatives of INDEC to conduct an economic census for a more recent year, to broaden the scope of its data collection to 5000 enterprises and to gain structural access to administrative data sources, are strongly encouraged by the OECD.

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<sup>70</sup> ENGE 2017 [https://www.indec.gob.ar/uploads/informesdepreensa/enge\\_01\\_19.pdf](https://www.indec.gob.ar/uploads/informesdepreensa/enge_01_19.pdf), released in January 2019.



## CHAPTER 6. INDICES OF PRODUCTION AND DEMAND - REAL INDICATORS

### 1. Introduction

432. The OECD collects monthly information on the real economy for the following topics<sup>71</sup>: (i) production, (ii) sales and (iii) orders. This chapter describes these topics in more detail and provides an assessment of how INDEC complies with the data requirements.

433. Measures of monthly changes in the volume of production are of particular interest for economic analysis. In particular, the industrial production index is a business cycle indicator which measures the monthly changes in the price adjusted output of industry. Therefore, indices of production and demand are used for identifying turning points in economic cycles, for example, in the compilation of the OECD Composite Leading Indicators (CLIs).

### 2. OECD Data and Metadata Requirements for indices of production and demand

#### 2.1. Coverage

434. The OECD core data requirements for indices of production and demand cover monthly series on industrial production and turnover (total industry, mining, manufacturing, construction and energy); retail trade turnover (volume and value); new passenger car registrations; construction permits and work started. More specifically, the core data requirements are:

- Indices of industrial production by economic activities, i.e. total industry (B to D, ISIC Rev.4) as well as the following sections in ISIC Rev.4: Mining (B), Manufacturing (C), Energy (D), and Construction (F);
- Total retail trade volume and value (Section G, Division 47 of ISIC Rev.4);
- Number of construction permits issued for new dwellings (residential buildings); and,
- Number of new passenger cars registered for the first time (an acceptable alternative measure to new passenger car registrations may be the number of new vehicles sold).

435. In addition, the following list of indicators of production and demand is considered as highly desirable:

- Industrial production grouped by Main Industrial Groupings (MIG<sup>72</sup>) for Industry: consumer goods, consumer durables, consumer non-durables, intermediate goods, and capital goods;
- Total wholesale trade volume and value (Section G, Division 47 of ISIC Rev.4);

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<sup>71</sup> Information is also collected on 'stocks of products' and 'work started', but this concerns non-target requirements only.

<sup>72</sup> The Main Industrial Groupings, a Eurostat term, provide an alternative statistical breakdown of the economic activities of [Manufacturing](#). See [Eurostat Glossary: MIG](#). The exact breakdown of the categories is: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007R0656>

- Turnover value and volume in Manufacturing (Section C of ISIC Rev.4);
- Turnover value and volume grouped by five MIGs for Industry: consumer goods, consumer durables, consumer non-durables, intermediate goods, and capital goods;
- Volume and value of orders for total manufactured goods;
- Volume of stocks of total manufactured goods;
- Volume of stocks of consumer goods, intermediate goods and investment goods;
- Ratio of inventories to shipments;
- Number of dwellings for which construction work commenced.

436. Countries should provide as long a historical series as possible, beginning, at the latest, in 1995, though earlier data are preferred. While countries should provide the most frequent data available, either monthly or quarterly, monthly is the preferred frequency.

437. The OECD prefers that seasonal adjustments be made by the country itself as national statistics experts have better knowledge of local seasonal factors than international statisticians do. However, if a country does not supply seasonally adjusted data or if the seasonally adjusted series provided are not sufficiently long, the OECD will undertake the adjustments using X13-ARIMA procedure performed in *JDemetra+ v2.0*.

## **2.2. Compliance**

438. The definitions and compilation methods used should follow the UN International Recommendations for Industrial Statistics (2008)<sup>73</sup>, the UN International Recommendations for the Index of Industrial Production (2010)<sup>74</sup>, the International Recommendations for Distributive Trade Statistics (2008)<sup>75</sup> and the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 (2008)<sup>76</sup>.

## **2.3. Interpretability (Metadata requirements)**

439. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the Internet.

440. With respect to indexes of production and demand, the OECD requirements for metadata are the statistical population and unit, the geographic coverage, the sector coverage, the frequency, the classification system, the reference period, the seasonal adjustment method, the source of data and the method for index calculation.

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<sup>73</sup> [http://unstats.un.org/unsd/publication/seriesM/seriesm\\_90e.pdf](http://unstats.un.org/unsd/publication/seriesM/seriesm_90e.pdf)

<sup>74</sup> <http://unstats.un.org/unsd/EconStatKB/Attachment242.aspx>

<sup>75</sup> <http://unstats.un.org/unsd/trade/M89%20EnglishForWeb.pdf>

<sup>76</sup> [http://unstats.un.org/unsd/publication/seriesM/seriesm\\_4rev4e.pdf](http://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf)

## 2.4. Timeliness

441. It is important that countries make data available at the same time, or immediately after, they are released nationally. Ideally, monthly data should be available within one or two months and quarterly data within one quarter after the reference period.

## 3. Evaluation of indices of production and demand of Argentina

### 3.1. Coverage

442. Coverage of Argentinian data is assessed against the scope of the OECD's monthly data collection, focusing on the target indicators listed above. There is no formal questionnaire, but a list of data requirements is available on the OECD Data Collection Programme website.<sup>77</sup>

- **Production:** indices measuring volume changes of production output (and value-added) at basic prices. The target series concern production of total industry; total mining; total manufacturing; total energy; and total construction. Results should be provided both seasonally and non-seasonally adjusted.
  - INDEC compiles monthly indices on production of total construction (i.e. Synthetic Indicator of Construction Activity (ISAC)) and of total manufacturing (i.e. Industrial Production Index (IPI)); and a mining index (IPI minero) and vehicle registrations statistics are under construction. Both the ISAC and the IPI are presented on the basis of seasonally and non-seasonally adjusted data, as well as on the basis of trend-cycle information (index numbers and percentage change from the previous month). IPI data are available from early 2016 and ISAC data from January 2012.
  - INDEC also publishes a monthly report that includes the Synthetic Energy Indicator (ISE). This indicator measures performance of production in the energy sector on the basis of a representative set of energy forms. Results are presented on the basis of seasonally and non-seasonally adjusted data, as well as on the basis of trend-cycle information (index numbers and percentage change from the previous month). Data are available from January 2015.
- **Sales;** The target series concern total retail trade in nominal and volume terms, as well as the number of new passenger car registrations. Results should be provided both seasonally and non-seasonally adjusted.
  - Furthermore, INDEC compiles information on specific branches within retail trade. For 'supermarkets', 'shopping centres' and 'self-service wholesalers', information is available both in nominal and volume terms, whereas for 'household appliances and articles', information is available in nominal terms and in quantities (physical units) by articles for a selection of 22 groups of articles. These latter series are available from year 2017.

<sup>77</sup> [https://www.oecd.org/statistics/data-collection/Real\\_Indicators\\_Target\\_List.pdf](https://www.oecd.org/statistics/data-collection/Real_Indicators_Target_List.pdf)

- All the current series concern non-seasonally adjusted data. No data is available on the total of retail trade (i.e. ISIC Rev. 4 - Division 47).<sup>78</sup> Generally, data are available from early 2016, but some, seasonally adjusted, data are available for historical periods up to 2013 but it is not clear whether these historical data are comparable with the current series.
- No information is currently available on the number of new passenger car registrations, but as of the end of 2018, INDEC has administrative data available on the number of vehicles registration. This information is available as of January 2013 and is currently being analysed and validated
- **Orders:** The target series concern permits issued for dwellings. Results should be provided both seasonally and non-seasonally adjusted.
  - Monthly data are available on permits issued for dwellings, but the data concerns spatial units only. Furthermore, INDEC is currently collecting information on the number of private construction permits to be included in the monthly report in the near future.
  - Results are presented in absolute terms (for 2014 onwards) and in percentage changes (for 2015 onwards) compared to the same period in the previous year.
  - No information is available on the number of permits.
- **Volume of stocks of total manufactured goods:** The target series concern the volume of products remaining in the reporting unit at the end of the month. Results are requested both seasonally and non-seasonally adjusted.
  - Information on the stock of total manufactured goods is available on the basis of a quarterly survey. Information is available in nominal terms as of January 2016.

### 3.2. Compliance

443. Detailed information is available on the methodology used to compile the production indices (ISAC and IPI), the Synthetic Energy Indicator (ISE), as well as for the sales indices. Unfortunately, the information is currently only available in Spanish. It would be helpful if this would also become available in English.

444. The production index for total construction (ISAC) is a synthetic indicator that shows the performance of the construction sector using apparent consumption of construction inputs as a reference. Apparent consumption is calculated as the sum of dispatches of national production to the domestic market plus imports, for each input of the ISAC general index. Various inputs are considered in terms of physical volume, e.g. asphalt, lime, cement, plumbing, and concrete-reinforcing round bars and steel for construction. For each month, a Laspeyres quantity index per input is calculated. The ISAC general level index is derived on the basis of weights from the use table for the year 2004. It is recommended to update these weights on the basis of a more recent benchmark year.

445. The production index for total manufacturing (IPI) follows the international recommendations, such as the UN International Recommendations for Industrial Statistics (2008) and the UN International Recommendations for the Index of Industrial Production (2010). It is based on a comprehensive survey of all economic activities of the manufacturing sector, covering more than 5,000 manufacturing industry

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<sup>78</sup> The following groups/classes are not covered: 471, 4723, 473, 4751, 4752, 4753, 4773 and 479.



establishments. Various variables are used to measure the monthly production performance, i.e. output in physical units, sales in physical units, use of inputs for manufacturing products, apparent consumption, man-hours in the production process and deflated sales at current prices. These variables generate individual production indices for each subclass of the manufacturing industry. The weight structure is based on the gross value added at basic prices of the manufacturing industry's activity for the year 2004. It is recommended to update these weights on the basis of a more recent benchmark year. Furthermore, the results have up to now been compiled on the basis of ISIC rev. 3, though INDEC is in the process of moving to ISIC rev. 4 for the Economic Census, which will feed through to the national accounts.

446. A mining index (IPI minero) is under construction, with methodology and questionnaire design complete, and collection under way in mid-2019. Like the IPI, it follows international recommendations such as the UN International Recommendations for Industrial Statistics (2008) and the UN International Recommendations for the Index of Industrial Production (2010), and uses the ISIC 4 classification which underlies Argentina's ClaNAE 2010, part B of which covers mining and quarrying. The observational units are establishments as defined in SNA 2008; the sampling frame is derived from Argentina's national mining census of 2016; and data will be sought at five-digit level covering the period from January 2017 to date.

447. Vehicle registration statistics are also being prepared, using data supplied by the motor registry (Dirección Nacional de Registro de la Propiedad Automotor (DNRPA)). The base data are available by month for the whole country, and are disaggregated by vehicle category, provincial jurisdiction and origin (domestic or imported). Publication is expected in the second half of 2020, covering the period since January 2014.

448. The Synthetic Energy Indicator (ISE) measures the performance of production in the energy sector on the basis of a representative set of secondary forms of energy, i.e. net electric power generation, net gas supplied from electric power stations and petroleum-based products. The selected variable is production, except for supplied gas, for which supply is considered. Since the ISE components are diverse, conversion factors are used to translate the different measurement units into 'tons of oil equivalent'. The general level of the ISE is obtained by considering the secondary forms of energy measured in TOE. The weight structure is based on results for the year 2004. It is recommended to update these weights on the basis of a more recent benchmark year.

449. The sales indicators as currently compiled and published by INDEC are not fully in line with the OECD requirements, as the information on sales does not cover the whole retail industry, but only 'supermarkets', 'shopping centres', 'self-service wholesalers' and 'household appliances and articles'. The data on retail trade are based on specific monthly surveys, including amongst others questions on sales (broken down by specific groups of items), employed personnel and number of stores. Other questions as included in the surveys concern sales by payment method, sales by channel, and average receipts.

450. Finally, the data on permits issued for dwellings is derived on the basis of information from private construction permits on the area recorded for new constructions and expansions.

451. Currently, all surveys are based on a combination of full coverage for certain inputs or industries and panel data for other inputs and industries. When the latter is not done on the basis of a stratified sample, this may introduce biases, particularly as this may lead to underestimation of the contribution of new firm entries.

### 3.3. Interpretability

452. Metadata is available in Spanish that explains the construction of the indices in detail.<sup>79</sup> It would be helpful if this would also become available in English.

### 3.4. Timeliness

453. For retail trade, the results for ‘supermarkets’ and ‘shopping centres’ are published 50 days after the reference month; well within the desired range of three months after the reference period. For ‘household appliances and articles’ the monthly data is only collected every quarter. These data also become available 50 days after the end of the reference quarter.

454. Data on the production of total construction (ISAC) and industry (IPI), and on permits issued for dwellings are published 35 days after the reference period. Currently these data are not provided to the OECD on a regular basis but the mechanisms to implement an on-going transmission are investigated.

## 4. Overall assessment and recommendations

455. INDEC currently does not compile short-term indicators that are fully in line with the OECD requirements, but they do compile some statistics that are closely related to these indicators. Timeliness is, on the whole, in line with OECD requirements but the biggest area of improvement concerns the coverage of firms and activities used in constructing current indices. Although the use of a panel of firms can provide new insights on business dynamics (where INDEC could look to develop a range of indicators that can complement core business demography statistics), this can come at the cost of potential biased estimates of growth (as noted above). In addition, and in relation, the focus on brick and mortar establishments for the measurement of retail sales may miss significant growth in sales via digital platforms (which even if only limited in scale today is likely to grow significantly in the coming years).

456. As INDEC is already compiling data on sales in nominal and volume terms for important branches within the retail trade industry, it is recommended to explore whether these can be used to derive results for the retail sector as a whole. This will depend on the relative share of these branches in the total retail trade sector and on the possibility to broaden the scope of the surveys to include the missing branches (and investigations should also look into the potential to capture digitally intermediated sales). To be in line with

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<sup>79</sup> The metadata is available via the following links:

- Synthetic Indicator of Construction Activity:  
[https://www.indec.gob.ar/ftp/cuadros/economia/metodologia\\_isac\\_2018.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metodologia_isac_2018.pdf)
- Industrial Production Index:  
[https://www.indec.gob.ar/ftp/cuadros/economia/metodologia\\_ipi\\_manufacturero\\_2019.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metodologia_ipi_manufacturero_2019.pdf)
- Energy Sector Indicators:  
[https://www.indec.gob.ar/uploads/informesdeprensa/indicadores\\_energeticos\\_03\\_19.pdf](https://www.indec.gob.ar/uploads/informesdeprensa/indicadores_energeticos_03_19.pdf)
- Supermarkets and the self-service wholesalers:  
[https://www.indec.gob.ar/ftp/cuadros/economia/metodologia30\\_supermercados\\_mayoristas.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metodologia30_supermercados_mayoristas.pdf)
- Shopping centres: <https://www.indec.gob.ar/ftp/cuadros/economia/compras-metodologia-271207.pdf>
- Household appliances and articles:  
[https://www.indec.gob.ar/ftp/cuadros/economia/metodologia\\_electro\\_2018.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metodologia_electro_2018.pdf)

OECD requirements, results should be presented in the form of an index, both seasonally and non-seasonally adjusted. INDEC's efforts to develop statistics on vehicle registrations are strongly encouraged.

457. With regard to the indicators concerning the production of total industry; total mining; total manufacturing; total energy; and total construction, full compliance with the coverage of activities in ISIC Rev. 4 should be ensured as should the development of survey approaches (or sources) that provide for a better sample of firm coverage (i.e. a move away from the panel approach). For this purpose, it would be important to construct an up-to-date business register and to start collecting information via a sample survey.

458. Finally, with regard to the series on permits issued for dwellings, it is recommended to also assess the number of permits issued, in addition to the information on the area covered. As the current focus only seems to be on private construction permits, it would also be important to assess the extent of public construction permits and how that information could also be included in the indicator.

## CHAPTER 7. INTERNATIONAL TRADE BY COMMODITY STATISTICS (ITCS) AND TRADE BY ENTERPRISE CHARACTERISTICS (TEC)

### 1. International Trade by Commodity Statistics (ITCS)

#### 1.1. Introduction

459. This chapter presents an overview of International Trade by Commodity Statistics (ITCS) for Argentina.

460. The foreign trade statistics produced by the National Institute of Statistics and Censuses (INDEC) provide data about the movement of goods between Argentina and the rest of the world, representing a key instrument for decision-making and analysis.

461. According to United Nation guidelines, international merchandise trade statistics record all goods that add to, or subtract from, the stock of material resources of a country by entering (as imports) or leaving (as exports) its economic territory. Goods being transported through a country or temporarily admitted or withdrawn (except for goods for inward or outward processing) are not included in merchandise trade statistics.

462. OECD countries use the United Nations' International Merchandise Trade Statistics: Concepts and Definitions 2010 (IMTS 2010)<sup>80</sup> manual to the extent that their data sources allow. There are some, generally minor, differences across countries in practice in the coverage of certain types of transactions such as postal trade, imports and exports of military equipment under defence agreements, sea products traded by domestic vessels on the high seas and goods entering or leaving bonded customs areas.

463. The first official foreign trade statistics in Argentina date back to 1861 and were developed by the National Customs Administration. In 1894, Law No. 3180 created the General Statistics Office (DGE), which was entrusted with the responsibility for producing export and import statistics to be published in foreign trade directories on a quarterly basis. Foreign trade statistics are governed by the following statutory provisions: Law No. 17622/68; Decree 3110/70; Decree No. 1831/93; Decree No. 1359/2004; Resolution 426/17; Resolution No. 779/2004; and Administrative decision 305/17.

#### 1.2. OECD Data and Metadata Requirements for International trade by Commodity Statistics

##### 1.2.1. Coverage

464. The OECD International Trade in Goods programme consists of three datasets: OECD Annual International Trade by Commodity Statistics (ITCS); OECD Quarterly International Trade Statistics (QITS); and OECD Monthly International Merchandise Trade data as presented in the Statistics and Data Directorate's (SDD) Main Economic Indicators database.

1. The OECD International Trade by Commodity Statistics database contains values and quantities of exports and imports by partner countries and by commodity and industry. Commodities are available at the most detailed level of the Standard International Trade Classification (SITC Revision 2, 3 and 4) and the Harmonised System (HS 1988, HS 1996, HS 2002, HS 2007, HS 2012 and HS 2017). OECD extracts trade data directly from the UN COMTRADE database.

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<sup>80</sup> [http://unstats.un.org/unsd/trade/eg-imts/IMTS%202010%20\(English\).pdf](http://unstats.un.org/unsd/trade/eg-imts/IMTS%202010%20(English).pdf)

2. The OECD Quarterly International Trade Statistics database contains values of exports and imports by partner countries for total trade. OECD extracts monthly trade data from the UN COMTRADE database, and aggregates the quarterly frequency by summing up the months.
3. The OECD International Merchandise Trade data as presented in the SDD Main Economic Indicators database presents the headline monthly values of total trade. The following time series, in raw and seasonally adjusted form, on a monthly frequency are required:
  - Total trade (partner world) exports; and,
  - Total trade (partner world) imports.

465. The OECD requires annual trade data by detailed Commodity (at least 6 digits) and by partner countries according to the general trade system, in the national currency. The Secretariat requests that countries code data using the International Harmonised Commodity Description and Coding System (Harmonised System or HS).

### *1.2.2. Compliance*

466. The definitions and compilation methods used for ITCS should follow the recommendations in International Merchandise Trade Statistics: Concepts and Definitions, (IMTS 2010). Among IMTS recommendations, those on the underlying trade system used, valuation CIF/FOB, and origin/last known destination are of particular importance for the OECD, particularly in the development of its database of balanced international merchandise trade statistics, which is governed by the annual OECD Working Party of Trade in Goods and Services (WPTGS).

467. The Secretariat requests that the data record import partner countries according to the country of origin and export partner countries according to the last identifiable destination (for example the OECD balanced international merchandise trade database is based on country of origin). If such reporting is not possible, the Secretariat will accept imports recorded according to the country of consignment and exports recorded according to the country of contract.

### *1.2.3. Interpretability (Metadata requirements)*

468. For OECD purposes it is strongly recommended that metadata be available in English and be easily accessible over the internet. For international trade in merchandise statistics, the standard metadata requirements are sources and methods on (i) trade system, (ii) trade valuation, (iii) commodity classification, (iv) trading partners (origin/last known destination), and (v) exchange rate.

### *1.2.4. Timeliness*

469. It is important that countries provide data at the same time, or immediately after, they are released nationally. Ideally, yearly data should be available within 4-6 months and monthly data within one or two months, after the reference period. It is also recommended that fixed and unchangeable release dates for international trade data be published in English at least 12 months in advance. Such advance announcements ensure transparency and strengthen the perception of objectivity of the data dissemination.

### *1.2.5. Data and metadata transmission*

470. All annual and quarterly international trade data for Argentina are collected from UN COMTRADE. Headline monthly trade data are collected directly from INDEC. Methodological information on international trade time series should be transmitted by countries via the OECD's questionnaires. However,

the Secretariat recommends that all metadata be made available, in English, on the internet to strengthen transparency and facilitate the use of trade statistics by external users.

#### *1.2.6. Coherence*

471. The extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets, over time, and across countries. For example, with regards to International Trade by Commodity Statistics this implies coherence with the recommendations in International Merchandise Trade Statistics: Concepts and Definitions, (IMTS 2010). In addition, adjustments to align IMTS data with balance of payments concepts for goods (and also national accounts and supply-use concepts) are required.

#### *1.2.7. Accuracy*

472. The extent to which data correctly estimate or describe the quantities or characteristics they are designed to measure, and to which procedures are in place to ensure that source data are adequate, statistical techniques are sound, and statistical outputs are validated.

### **1.3. Evaluation of Argentina's Trade by Commodity Statistics**

473. Argentinian foreign trade statistics are developed using the following standards and guidelines:

- United Nations (2010). International Merchandise Trade Statistics (IMTS), Concepts and Definitions.
- World Customs Organization (WCO) (2012). Standardised units of quantity, as subsequently updated.
- Latin-American Integration Association (ALADI) (2015). Instruction Manual for the Harmonize Provision of Foreign Trade Data for Member Countries, as subsequently updated.
- MERCOSUR, Manual of the harmonize methodologies used to produce Foreign Trade Statistics. Committee No. 6 "MERCOSUR Foreign Trade Statistics". Rev. 1, 2014.

#### *1.3.1. Coverage*

474. INDEC provides the UN with full coverage in regards to variables and frequency. Annual data are available from 1993 and monthly data from January 2010 in line with the majority of OECD countries.

475. Data are available only in U.S. dollars (again in line with other countries in this region, e.g. Mexico, Colombia, Costa Rica).

476. Data cover the Argentinean statistical territory, and exclude Customs warehouses:

- The 24 Argentine provinces (free circulation area);
- Territorial waters and the continental shelf;
- Free Trade Zones and Customs Special Areas.

#### *1.3.2. Compliance*

477. Foreign trade statistics are mainly compiled based on customs records. In line with international standards, goods that are merely transported through the country (in transit) or temporarily admitted or withdrawn are neither added to nor subtracted from the stock of material resources and, therefore, are not included in the merchandise foreign trade statistics.

478. In accordance with international recommendations, transactions are divided into three groups:

- Goods included in the international merchandise trade statistics.
- Goods that may be included in the international merchandise trade statistics but recorded separately.
- Goods excluded from the international merchandise trade statistics, especially goods classified as part of service trade.

### *1.3.3. Interpretability (Metadata requirements)*

479. Argentina has strong metadata, available in English, on its own website.<sup>81</sup> The metadata are easily accessible and cover, in some detail, full compilation and dissemination methods for foreign trade statistics. The metadata available on the INDEC website were published in September 2017.

### *1.3.4. Timeliness*

480. INDEC disseminate foreign trade statistics according to a pre-release calendar.<sup>82</sup>

481. The headline export and import monthly series for Argentina, on a raw and seasonally adjusted basis, and used in the preparation of OECD quarterly G20 News Release, are captured by the OECD directly from the INDEC website.<sup>83</sup>

482. Data are released according to a published schedule and occurs 21-26 days after the end of the reporting period, depending on the month.

### *1.3.5. Data and metadata transmission*

483. INDEC is currently working on the development of a SDMX technological platform to submit data to UN COMTRADE. Foreign trade data, available in the INDEC website.<sup>84</sup>

### *1.3.6. Coherence*

484. Foreign trade statistics are coherent within and across datasets but additional efforts to adjust merchandise trade statistics with those required for the balance of payments are needed (see also Chapter 8).

### *1.3.7. Accuracy*

485. Foreign trade statistics are prepared primarily on the basis of customs records. These data are complemented with data from other sources.

486. Customs registries and complementary sources are managed and operated with a customised computer system developed by the Directorate of Foreign Trade Statistics, based on a relational database, whose consistency guidelines were agreed with INDEC's National Directorate of Statistical Methodology. The National Directorate has a team of IT professionals with expertise in the field who are in charge of managing the maintenance and update of the databases. Furthermore, the Directorate of Foreign Trade

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<sup>81</sup> [https://www.indec.gob.ar/ftp/cuadros/economia/metod\\_arg\\_foreign\\_trade.pdf](https://www.indec.gob.ar/ftp/cuadros/economia/metod_arg_foreign_trade.pdf)

<sup>82</sup> <https://www.indec.gob.ar/indec/web/Calendario-EnglishCalendar-0>

<sup>83</sup> <https://www.indec.gob.ar/indec/web/Nivel4-Tema-3-2-40>,  
<https://www.indec.gob.ar/ftp/cuadros/economia/balanmensual.xls>

<sup>84</sup> <https://comex.indec.gob.ar/search>

Statistics has two divisions, for exports and imports, which are responsible for the follow-up and control of foreign trade transactions.

487. Revision practice follows general criteria in line with relevant standards in INDEC's code of good practice for official statistics. Revisions and important changes are announced in advance and follow standardised, well-established and transparent procedures. The revisions policy is made available to all users. INDEC undertakes periodically analysis of revisions with the aim of improving its statistical processes.

#### ***1.4. Overall Assessment, Main Findings and Recommendations for International Trade by Commodity Statistics***

488. Argentina compiles international merchandise trade statistics according to the *United Nations International Merchandise Trade Statistics (IMTS), Concepts and Definitions 2010*, and in line with OECD requirements in most respects. Detailed metadata in English are publicly available on their website.

489. Exports are recorded at FOB values at the port or place of shipment of the goods. In other words, the value of the transaction also includes the expenses incurred domestically in moving the goods to the port or place of shipment.

490. Imports are recorded at CIF values. In other words, they include the FOB values plus the insurance and freight values (excluding import duties) incurred in bringing the merchandise from the port or place of shipment to the first port or place of arrival in Argentina.

491. That being said, in order to develop robust estimates of balanced international merchandise trade that are used in the compilation of the OECD's analytical balanced merchandise trade database<sup>85</sup> and its development of Trade in Value estimates, Argentina is strongly encouraged to also disseminate estimates of imports in FOB prices on its webpage.

492. Argentina is also strongly encouraged to continue to participate in the bilateral asymmetry meetings<sup>86</sup> organised by the OECD back-to-back with the annual WPTGS. The following Tables set out the largest current bilateral asymmetries in data reported by countries.

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<sup>85</sup> [http://stats.oecd.org/Index.aspx?DataSetCode=BIMTS\\_CPA](http://stats.oecd.org/Index.aspx?DataSetCode=BIMTS_CPA)

<sup>86</sup> OECD Working Party on International Trade in Goods and Services – an annual meeting is held in March each year at the OECD. INDEC attended the 2018 meeting.



493. Table 7.1 details the Top 5 partners for which Argentina has the biggest asymmetries both on exports and imports sides for total goods in 2016. While several of the differences are small at the level of total imports or exports, the totals of the absolute differences at commodity level are substantial.

**Table 7.1. Top 5 partners with the largest asymmetries at the Total goods level**

**International Merchandises Trade Statistics (million USD)**

		Argentina's imports	Mirror data	Absolute asymmetries		Argentina's exports	Mirror data	Absolute asymmetries
1	China	10,467	7,201	6,731	United States	4,483	4,904	1,914
2	United States	6,985	8,513	5,185	China	4,425	5,118	953
3	Brazil	13,597	13,418	1,766	Chile	2,297	2,465	823
4	Germany	3,053	2,892	1,592	Egypt	1,792	1,426	739
5	Italy	1,436	1,269	932	Venezuela	707	0	707

494. Table 7.2 details the Top 5 commodities for the top 5 partners with whom Argentina has the biggest asymmetries both on exports and imports sides in 2016. The commodity codes follow the HS 2012 classification.<sup>87</sup>

**Table 7.2. Top 5 commodities for the Top 5 partners with the largest asymmetries**

**International Merchandises Trade Statistics (Thousand USD)**

Country	Commodity code HS2012	Argentina's imports	Mirror data	Absolute asymmetries	Country	Commodity code HS2012	Argentina's exports	Mirror data	Absolute asymmetries
China	851770	1,023,928	38,699	985,229	United States	999999	428	245,018	244,590
China	852990	407,063	66,684	340,379	United States	880240	190,895		190,895
China	851712	37,888	321,983	284,095	United States	382600	1,138,019	1,259,300	121,281
China	851762	305,514	110,620	194,894	United States	870421	109,890	37	109,854
China	852872	22,429	175,842	153,412	United States	870333		95,877	95,877
United States	999999	79	882,289	882,210	China	120190	2,792,549	3,230,710	438,161
United States	880240	609,241		609,241	China	270900	378,031	488,069	110,038
United States	271019	923,940	1,191,057	267,116	China	283691	9,435	45,965	36,530
United States	850300	217,583	14,220	203,363	China	410792	9,568	45,883	36,315
United States	851762	71,805	263,161	191,356	China	410441	19,773	51,254	31,481
Brazil	880240	218,014	65,000	153,014	Chile	760720	167	70,012	69,845
Brazil	271111		69,726	69,726	Chile	230990	69,091	10,062	59,029
Brazil	260112	160,618	104,510	56,108	Chile	481159	56,877	417	56,460
Brazil	260111	135,593	84,251	51,342	Chile	151790	20,589	70,804	50,215
Brazil	260200	1,381	52,102	50,721	Chile	151800	43,290	1,430	41,859
Germany	300210	220,499	116,196	104,303	Egypt	150710	409,408	99,420	309,988
Germany	999999	28	102,204	102,176	Egypt	120190	217,435	61,556	155,880

<sup>87</sup>

<https://unstats.un.org/unsd/tradekb/Knowledgebase/50018/Harmonized-Commodity-Description-and-Coding-Systems-HS>

Germany	300490	162,341	72,276	90,064	Egypt	999999		87,204	87,204
Germany	850300	75,805	2,875	72,931	Egypt	151211	37,324	763	36,561
Germany	841199	84,887	14,744	70,143	Egypt	100199	35,113		35,113
Italy	843049	29,590	4	29,586	Venezuela	230400	176,191		176,191
Italy	840790		28,623	28,623	Venezuela	300490	131,823		131,823
Italy	300210	31,895	8,960	22,935	Venezuela	150710	113,780		113,780
Italy	300490	45,226	25,864	19,363	Venezuela	040221	75,169		75,169
Italy	840890	134	19,119	18,985	Venezuela	120190	27,936		27,936

## 2. Trade by Enterprise Characteristics (TEC)

### 2.1. Introduction

495. There is a growing appreciation that the statistical compilation tools and accounting frameworks designed and developed over the last 60 years in various manifestations of the System of National Accounts, despite their significant advances, were originally designed in a world where production was largely self-contained within an economy, with trade reflecting exports and imports of finished or primary goods.

496. Over the years as global production chains and interconnectedness grew, there was a growing realisation that additional information was needed to properly navigate around the economic landscape, which resulted in the development of new areas of statistics, such as Foreign Direct Investment measures and data collections focusing on inward and outward activities of foreign affiliates (Foreign Affiliates Trade in Services, FATS).

497. More recently, new data collections, or rather compilations, have focused on linking trade and business registers to provide insights on which firms in which sectors engage in imports and exports and the trade-investment nexus, referred to as Trade by Enterprise Characteristics, the focus of this section.

498. International trade statistics are among the most widely available and consulted data, and offer a picture of trade flows between countries, broken down by types of goods and services. However, such conventional international trade statistics do not offer insights into the actors who are actually engaged in cross-border trade.

499. Trade by Enterprise Characteristics (TEC) data aims to fill this gap, by making available international annual trade in goods data broken down by different categories of enterprises. The data provide a solid basis for policy analyses that explore which types of firms are responsible for international trade in goods. It answers questions about which types of firms are engaged in foreign markets, and their characteristics. This OECD linkage of trade and business registers aims at producing sectoral international merchandise trade data in US dollars, disaggregated by the characteristics of the trading enterprises.

### 2.2. OECD Data and Metadata Requirements for Trade by Enterprise Characteristics

#### 2.2.1. Coverage

500. The product classification to be used is the CPC Ver.2 (see Chapter 2).

501. Trade values and enterprise characteristics should be displayed following the ISIC Rev.4 classification of the trading enterprise, which is the principal activity sector in which the enterprise is

classified in the business register. The 2-digit level of the ISIC code should be used whenever possible. The reference population should cover all enterprises recorded in the business register, except ISIC Rev.4 sections T and U (97, 98 and 99).

502. The OECD collects:

- The number of enterprises engaged in imports or exports and number of enterprises, indicating the difference between administrative units used in external trade statistics and statistical units used in business statistics.
- The number of trading enterprises by economic sector and employment size class.
- The value of trade and number of enterprises by economic sector and employment size class both for exports and imports.
- The concentration of trade value (both for exports and imports).
- The number of trading enterprises by partner countries and zones (both for imports and exports).
- The value of trade by partner countries and zones (both for imports and exports).
- The value of trade by commodity and economic activity (both for imports and exports).
- The value of trade and number of trading enterprises by types of ownership.

503. In this way, the OECD can compile TEC data that includes a disaggregation by six types of ownership: domestically controlled enterprises; domestically controlled enterprises without own affiliates abroad; domestically controlled enterprises with own affiliates abroad; foreign controlled enterprises; and unknown control.

504. In addition, the data will therefore also include a disaggregation by six types of traders: importers only; importers and two-way traders; exporters only; exporters and two-way traders; and unknown. Finally, the data will include a disaggregation by seven types of export intensity: non-exporters; enterprises that export from 0 to 24% of their total output; enterprises that export from 25 to 49% of their total output; enterprises that export from 50 to 74% of their total output; enterprises that export from 75 to 100% of their total output; and unknown.

### *2.2.2. Compliance*

505. The Secretariat requests the application of the general trade system. The statistical unit to be used should be the enterprise which means that trade data that are generally collected and registered by declaring unit, must be connected to characteristics available in the statistical business register for the whole enterprise concerned. The product classification to be used is the CPC Ver.2 and the activity code should be the activity carried out by the enterprise according to ISIC Rev.4 classification.

506. The ISIC code within the statistical business register should refer to the principal activity during the reference year. The 2-digit level of the ISIC code should be used. The number of employees is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. The annual average should be considered, and not employment on a particular date.

### 2.2.3. Timeliness

507. It is important that countries provide data at the same time, or immediately after, they are released nationally. Ideally, annual TEC data should be available around 16-18 months after the reference period. This allows time for both statistical business register records and international trade statistics to become final. It is also recommended that fixed and unchangeable release dates for TEC data be published in English at least 12 months in advance. Such advance announcements ensure transparency and strengthen the perception of objectivity of the data dissemination.

### 2.2.4. Data and metadata transmission

508. At present the OECD collects TEC data via a set of excel questionnaires available on the “OECD Data Collection Programme” website<sup>88</sup>. However, the OECD can work with countries to receive the data in a format that best suits them, for example flat files, XML, SAS files, etc.

### 2.2.5. Coherence

509. The extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets, over time, and across countries. In recent years, Eurostat (with input from the international community, including the OECD) has produced the “Compilers guide on European statistics on international trade in goods by enterprise characteristics”<sup>89</sup>.

510. The main objective of this guide is to provide a comprehensive overview of the compilation of indicators on trade in goods by enterprise characteristics, aiming to serve as a methodological handbook providing the necessary definitions, instructions and methodological guidance for the regular compilation of TEC statistics. Adhering to such a guide should ensure coherence.

## 2.3. Overall Assessment for Trade by Enterprise Characteristics (TEC)

511. Current TEC statistics are the result of the collective efforts of Eurostat, the OECD, and the participating countries in disaggregating trade values (i.e., imports and exports) according to the characteristics of the trading enterprises. TEC statistics have significantly improved our collective understanding of trade, and indeed investment, through its further slicing of detailed exports and imports of goods by partner country into industries, employment size classes and ownership characteristics of the trading firms.

512. Argentina is at an early stage regarding the compilation and dissemination of TEC data. It has a solid foundation as it has indicated strong interest and begun identifying data sharing agreements that will be important to expanding the linking of business and trade statistics. In a 2018 WPTGS stocktaking questionnaire, Argentina indicated the possibility of conducting a linking exercise on jobs/wages (with enterprise survey) and trade (with domestic/foreign ownership distinctions) in the future. Regarding data sharing, a memorandum of understanding was signed between the Central Bank and INDEC to share data at the level of individual firm. Given the rising importance of digital trade, Argentina has also stated that while at the moment their Customs Authorities (the data source for merchandise trade and TEC) do not have electronic customs declarations for enterprises engaged in below-the-threshold transactions, in the future they expect this to change.

<sup>88</sup> <http://www.oecd.org/statistics/data-collection/internationaltrade.htm>

<sup>89</sup> <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-GQ-19-001>

513. In addition to this progress toward a TEC program in Argentina, creating a future Services Trade by Enterprise Characteristics (STEC) data program is also encouraged.

514. Finally, situating linkages between TEC microdata and other business statistics in order to best serve key OECD initiatives such as Extended Supply-Use Tables, Measuring Multinational Enterprises (MNEs), and the trade-investment nexus is important for Argentina to consider in order to be in alignment with OECD member countries and key partners.

515. The recommendations provided below concentrate on the OECD Data Quality Dimensions, in particular ensuring TEC's continued relevance, accuracy as well as improved coherence and timeliness:

- Compile trade in goods and services data by MNE/Ownership. This will be an important input to an improved OECD TEC (and in the future STEC) by ownership, and ensure greater alignment between TEC, STEC and FATS.
- Construct a strategy to link trade and business statistics, particularly that of TEC microdata and other business and investment data. This will enable Argentina to participate in key OECD initiatives such as Extended Supply-Use Tables and Measuring MNEs (OECD Analytical Database on Individual Multinationals and their Affiliates, ADIMA).
- Continue to explore further breakdowns of trade statistics to reflect heterogeneity, specifically of Small and Medium-Size Enterprises (SMEs) and MNEs' ownership - including differentiating between SMEs that are part of foreign MNEs or large enterprise groups and those that do not benefit from such an infrastructure.

## CHAPTER 8. BALANCE OF PAYMENTS AND INTERNATIONAL TRADE IN SERVICES STATISTICS

### 1. Introduction

516. This chapter presents an overview of International Trade in Services Statistics (ITSS) and Balance of Payments (BOP) statistics for Argentina.

517. Decree 1268/1994, Resolution N° 779/2004 (and its modifications) of the Ministerio de Economía states that INDEC has the obligation to compile balance of payments (which include the compilation of international trade in services statistics) and international investment position statistics.

518. The balance of payments records all economic transactions between resident and non-resident entities of the country during a given period. In this way, the balance of payments provides harmonised statistics on international transactions recorded in three accounts: current; capital; and financial. The balance of payments is based on a double entry system and therefore the sum of the balances between the three accounts is in principle zero, any discrepancy being due to statistical errors.

519. The balance of payments is an important macro-economic indicator for a country, allowing it to access the position of its economy towards the external world. Balance of payments data are used in the compilation of the country's national accounts in addition to producing various other indicators (e.g. foreign direct investment [FDI] statistics, and international trade in services statistics).

520. At the international level, the accepted international methodology is the *Balance of Payments and International Investment Position Manual, Sixth Edition* (BPM6)<sup>90</sup> of the International Monetary Fund (IMF). The IMF closely monitors compilation practices in countries and in recent years (and for some countries this is still ongoing) has focused on the implementation of BPM6 (published in 2009). Argentina moved from BPM5 to BPM6 in June 2017.

### 2. OECD Data and Metadata Requirements for Balance of Payments Statistics and International Trade in Services Statistics

#### 2.1. Coverage

##### 2.1.1 Balance of Payments

521. The OECD requires quarterly balance of payments data for a set of time series named OECD "core" series. There are 45 quarterly core raw series required and 15 seasonally adjusted core series in the current account.

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<sup>90</sup> <https://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm>

**Table 8.1. Balance of payments – Required quarterly series**  
**45 quarterly raw series, 15 quarterly seasonally adjusted series**

Component	Flow
Current Account	Credit/Debit/Balance – Seasonally Adjusted
Goods	Credit/Debit/Balance – Seasonally Adjusted
Net exports of goods under merchandising	Credit/Balance
Goods acquired under merchandising (negative credit)	Credit/Balance
Goods sold under merchandising	Credit/Balance
Services	Credit/Debit/Balance – Seasonally Adjusted
Primary income	Credit/Debit/Balance – Seasonally Adjusted
Secondary income	Credit/Debit/Balance – Seasonally Adjusted
Capital account	Credit/Debit/Balance
Gross acquisitions/disposals of non-produced non-financial assets	Credit/Debit/Balance
Capital transfers	Credit/Debit/Balance
Financial account	Assets/Liabilities/Net
Direct investment	Assets/Liabilities/Net
Portfolio investment	Assets/Liabilities/Net
Financial derivatives (other than reserves) and employee stock options	Net
Other investment	Assets/Liabilities/Net
Reserve assets	Assets
Net errors and omissions	Net

522. The time series cover the current, capital and financial account items, namely: goods; services; primary income; secondary income; gross acquisitions/disposals of non-produced non-financial assets; capital transfers; direct/portfolio/other investment; financial derivatives; and reserve assets. In addition, the series “net errors and omissions” is requested.

523. The move from BPM5 to BPM6 saw a number of changes in the international methodology. The two most important changes being: “merchandising” transactions, which moved into the goods account from the services account and the accompanying introduction of a category of “merchandising services” in the goods account. This reflected the strict alignment to the change in ownership principle for “goods sent abroad for processing services”; meaning that the related transactions previously included in the goods account now appear in the services account.

524. In regards to the seasonally adjusted series, there are 15 quarterly core series: credit/debit/balance in the current account for – goods, services, primary income and secondary income. In principle, the OECD prefers countries to undertake their own seasonal adjustment. However, the OECD does undertake the seasonal adjustment if only raw data is provided using the JDemetra+ software, which allows for the choice between TRAMO-SEATS and X13-ARIMA, and follows the (Eurostat sponsored) *ESS<sup>91</sup> Guidelines on Seasonal Adjustment* (2009).

### 2.1.2. International Trade in Services

525. The OECD requests annual data on international trade in services statistics following the BPM6/Extended Balance of Payments Services Classification, (EBOPS 2010). The OECD excel based questionnaire asks for detailed international trade in services by partner country, including partner world, for the full extended EBOPS 2010 classification.

<sup>91</sup> European Statistical System.

526. Countries are requested to provide detailed international trade in services statistics by EBOPS 2010 and by partner as far back as possible, but at least starting from 2010. Countries are also requested to update a metadata file, on their compilation methods. The full list of EBOPS 2010 services components, (with the full list of partner countries), along with the standard metadata format is available online on the OECD website.<sup>92</sup>

## **2.2. Compliance**

527. The definitions and compilation methods used for balance of payments should comply with the concepts outlined in the *Balance of Payments and International Investment Position Manual, sixth edition* (BPM6) of the International Monetary Fund (IMF). While not required by the OECD Statistics and Data Directorate (SDD), countries should ensure that any further breakdowns of the statistics, e.g. by activity, should follow international classifications, i.e. ISIC Rev.4. International trade in Services statistics should also comply with BPM6 requirements and in particular with the *Manual on Statistics of International Trade in Services* (MSITS 2010), including EBOPS 2010 requirements.

## **2.3. Interpretability (Metadata requirements)**

528. For OECD purposes it is strongly recommended that metadata be available in English and be easily accessible over the internet. For balance of payments and trade in services statistics, the OECD requires information on sources, national data provider and publisher, data collection systems, thresholds for data reporting (if any), national reference publications, international guidelines and manuals used (and differences from), periodicity, breaks in the time-series and websites disseminating statistics.

## **2.4. Timeliness**

529. It is important that countries provide data or that data be available at the same time, or immediately after, they are released nationally. Quarterly balance of payments data should be available within the end of the next reference period (i.e. within three months). International trade in services data are collected annually. Ideally, data should be available within 4-6 months of the reference period.

## **2.5. Data and metadata transmission**

530. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX<sup>93</sup> global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too. The Balance of Payments Data Structure Definition (BOP-DSD) is now official after having been agreed to between the main sponsors (BIS, ECB, Eurostat, IMF and the OECD).

531. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data. For quarterly balance of payments statistics, it would be ideal if data were transmitted via a XML/SDMX query as soon as they are released or available. However, Excel is an acceptable format and used by a number of OECD member countries, or if the official website has all the required data the OECD can extract it directly from

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<sup>92</sup> <http://www.oecd.org/sdd/its/tradeinservicesquestionnaires.htm>

<sup>93</sup> [www.sdmx.org](http://www.sdmx.org)



the relevant sites. The OECD target balance of payments series in excel format can be found on the “OECD Data Collection Programme” website.<sup>94</sup>

## **2.6. Coherence**

532. The extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets, over time, and across countries. For example, with regards to balance of payments this implies coherence with the international investment position and the System of National Accounts (SNA) for the Rest of the World to the International Accounts (BPM6 Table A7.1.). In the case of international trade in services, this relates mostly to the balance of payments and the national accounts supply-and-use tables (SUTs).

## **2.7. Accuracy**

533. The extent to which data correctly estimate or describe the quantities or characteristics they are designed to measure, and to which procedures are in place to ensure that source data are adequate, statistical techniques are sound, and statistical outputs are validated.

## **2.8. Credibility**

534. The extent to which users can be confident in using the statistics.

## **3. Evaluation of Argentina’s Balance of Payments Statistics**

535. INDEC has compiled balance of payments statistics in line with BPM6 recommendations since 2017 (with the series starting in the first quarter of 2006). All the raw balance of payments series required by OECD are compiled and disseminated by INDEC (and collected by the OECD) and detailed metadata is publicly available.

### **3.1. Coverage**

536. INDEC provides the OECD with full coverage with regard to variables and frequency. Data are available from the first quarter of 2006 in line with the majority of OECD countries. Data are available only in US dollars (again in line with other countries in the region, e.g. Mexico, Colombia, Costa Rica). Data cover the entire territory of Argentina.

### **3.2. Compliance**

537. Although INDEC does produce its balance of payments data broadly in line with BPM6 standards, there are a number of areas, recognised by INDEC, where improvements could be made. These include:

1. Income from rent earned on land and buildings directly by non-residents (debit): Currently no estimates are included in investment income, though work on this is under way.
2. Financial derivatives: In general, transactions involving financial derivatives are not recorded in the financial account, except for transactions involving GDP-linked bonds issued by the Central Government.

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<sup>94</sup> <http://www.oecd.org/statistics/data-collection/internationaltrade.htm>

3. Illegal activities such as smuggling are not recorded.
4. The short term and long term attribution of transactions by the Deposit-taking corporation and Other sectors is made according to the remaining or residual maturity of the financial instrument instead of the original maturity.
5. Direct investment transactions are generally valued at market prices. Book values are used for the Deposit-taking corporations when market value data are not available; the data in these cases are, therefore, affected by valuation changes.
6. Goods account: As in most countries, merchandise trade statistics are based on customs records reflecting the point when the goods enter or leave the territory. However, adjustments are needed to reflect BPM6 requirements reflecting the change in ownership principle (which does not appear to be the case at present in Argentina's balance of payments statistics, although this is also true of many OECD countries).
7. Geographical detail: Balance of payments data are not broken down geographically by country or region. INDEC is expecting to start publishing exports and imports of services broken down geographically during the second semester of 2019.
8. Seasonal adjustment: The series of balance of payments components presented are not adjusted seasonally. INDEC is expecting to start publishing the seasonally-adjusted BOP time series by 2020, as part of its established work programme.

538. As INDEC does not undertake seasonal adjustment of their balance of payments data, the OECD undertakes the adjustment, using the JDemetra+ software as describe above.

539. Although a geographical breakdown for balance of payments is not an explicit requirement of the OECD it is strongly encouraged, reflecting the growing need for better evidence on global value chains.

540. It is important to note that INDEC is not an outlier with respect to many of the areas of improvement described above, which reflect on-going challenges in a number of OECD countries, in particular with respect to the full implementation of the change of ownership principle. In addition, INDEC should be commended for the quality of their data on merchanting, where separate estimates of *Goods acquired under merchanting (negative credits)* and *Goods sold under merchanting (credits)*, are available, which is often not the case for non-OECD countries.

### 3.3. Interpretability (Metadata requirements)

541. Argentina has strong metadata on balance of payments statistics, available in English, both on its own website<sup>95</sup> and on the IMF's SDDS website.<sup>96</sup> The metadata is easily accessible and covers, in some detail, full compilation and dissemination methods for balance of payments and international investment position statistics (and external debt statistics). The metadata available on the INDEC website, published in January 2018 additionally includes a full section on the move from BPM5 to BPM6, including the main changes and the impact on the data.

<sup>95</sup> [https://www.indec.gov.ar/ftp/cuadros/economia/bdp\\_pii\\_de\\_metodologia\\_23\\_ingles.pdf](https://www.indec.gov.ar/ftp/cuadros/economia/bdp_pii_de_metodologia_23_ingles.pdf)

<sup>96</sup> <https://dsbb.imf.org/sdds/dqaf-base/country/ARG/category/BOP00>

### 3.4. Timeliness

542. INDEC disseminate balance of payments statistics according to a pre-release calendar<sup>97</sup> within the IMF's SDDS requirements; namely within one quarter after the end of the reference period. This meets the OECD's requirements in terms of timeliness.

### 3.5. Data and metadata transmission

543. INDEC is currently working on the development of an SDMX technological platform to submit data to the OECD. At present, the OECD sources Argentinian quarterly balance of payments data directly via the INDEC official website<sup>98</sup> using web-scraping technology.

### 3.6. Coherence

544. Balance of payments statistics are coherent within and across datasets, facilitated, no doubt, by the fact that INDEC is responsible for the balance of payments statistics, and the national accounts and external debt statistics.

### 3.7. Accuracy

545. In accordance with INDEC's balance of payments methodology, strong emphasis is placed on ensuring good accuracy through robust sources, solid cooperation with other compilers in the NSS and the validation of statistical outputs within INDEC. In addition, INDEC makes good use of bilateral partner information using other countries' national statistics and also information provided by international organisations (as listed below).

546. Revision practice follows general criteria in line with relevant standards in their code of good practice for official statistics. Revisions and important changes are announced in advance and follow standardised, well-established and transparent procedures; the revisions policy is made available to all users. INDEC periodically undertakes analysis of revisions with the aim of improving its statistical processes.

547. In regard to the collection and compilation of balance of payments, INDEC uses the following sources.

#### INDEC surveys:

- Survey on International Services (ESI – Spanish acronym); National Survey of Large Businesses (ENGE – Spanish acronym); International Tourism Survey (ETI – Spanish acronym); and a quarterly survey on local government external debt.

#### NSS agencies:

- Goods data are based on customs records from the General Customs Directorate, compiled according to the General Trade System.

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<sup>97</sup> [http://www.indec.gob.ar/calendario\\_ingles.asp](http://www.indec.gob.ar/calendario_ingles.asp)

<sup>98</sup> <https://www.indec.gov.ar/el-indec-eng.asp> and [http://www.indec.gob.ar/nivel4\\_default.asp?id\\_tema\\_1=3&id\\_tema\\_2=35&id\\_tema\\_3=45](http://www.indec.gob.ar/nivel4_default.asp?id_tema_1=3&id_tema_2=35&id_tema_3=45)

- Central Bank of the Republic of Argentina (BCRA – Spanish acronym) – including: Quarterly and annual surveys on private sector foreign assets and liabilities; Balance sheets of deposit-taking corporations.
- Statistics of the Foreign Exchange Market (MULC – Spanish acronym).
- Ministry of Tourism.
- General Accountancy of the Nation.
- Insurance National Superintendency.
- Ministry of Finance.
- Ministry for Foreign Affairs and Worship of the Argentine Republic.
- National Securities Commission.
- National Public Credit Bureau (ONCP – Spanish acronym).
- Federal Administration of Public Income (AFIP – Spanish acronym).
- Social Security National Administration (ANSES, for its Spanish acronym).
- Fishing Department of the Ministry of Agroindustry.
- Ministry of Treasury.
- National Directorate of Projects with International Credit Organisations.

#### Private Sources:

- Financial statements of enterprises, Bolsar.com, Bloomberg, Caja de Valores S.A.
- Buenos Aires Stock Exchange.
- Credit card issuing companies

#### Partner Countries:

- US Department of Treasury, US Federal Reserve, and US Real Estate Chamber.
  - Social Affairs Department (Spain).
- Uruguay Statistics Institute and Central Bank of Uruguay.

#### International Organisations:

- Bank of International Settlements (BIS).
- Organisation for Economic Co-operation and Development (OECD).
- International Monetary Fund.

### **3.8. Credibility**

548. INDEC balance of payments statistics currently meet IMF SDDS requirements and the IMF formally notes the positive reconstruction of the national statistical system. Although there remains scope for improvement in various areas, as noted above, the quality and credibility of INDEC balance of payments data appears to be in line with current practice in many OECD countries.

#### 4. Overall Assessment, Main Findings and Recommendations for Balance of Payments Statistics

549. Although there are a number of areas where improvement could be made, as set out above, the quality of INDEC data on the balance of payments is not significantly inferior to data provided by many OECD economies, and for some items, such as merchanting transactions, the ability to provide data puts INDEC at the frontier.

550. Priority actions that merit further investigation and investment in the short term include:

- Develop seasonally adjusted balance of payments current account series (for at least the 15 OECD core series);
- Undertake a preliminary investigation into cross-border illegal activities (such as smuggling) to assess the potential scale of the activity, subject to which a more comprehensive assessment may be required.

#### 5. Overall Assessment, Main Findings and Recommendations for International Trade in Services Statistics

551. As yet INDEC has not supplied the OECD with the required international trade in services (full EBOPS 2010) *by partner country*. In this regard, the recommendation for this section is simple; namely that INDEC compile and disseminate international trade in services statistics *by partner country*.

552. Argentina compiles international trade in services statistics according to the BPM6/MSITS2010 standards, using, as recommended, a variety of appropriate data sources; as outlined in the balance of payments part of this note. Statistics also follow the recommendations, for example to be valued at market prices and recorded on an accrual basis (with the exception of reinsurance; which is not unusual for this category).

553. Detailed metadata is publicly available as are all main EBOPS categories as well as a significant number (36) of more detailed EBOPS 2010 categories. These services components will be uploaded into the OECD International Trade in Services (TIS) database and therefore will become publically available and comparable with other countries in the database in the near future.

554. However, the main aspect where the Argentinian data do not yet meet OECD standards relates to the lack of partner country breakdowns, which are missing entirely. Given the importance of such breakdowns for analytical users, trade policy (negotiators), and other OECD databases, including the OECD-WTO Balanced Trade in Services database and the Trade in Value Added (TiVA) database, it is strongly recommended to accelerate the plans towards the development of these statistics.

555. In doing so, it is suggested that INDEC should first focus on the most important EBOPS categories (e.g. Total, travel, transport, etc.) by significant (key) trading partners. Both these initial breakdowns, EBOPS categories and partner countries, can then be extended over time. It should be noted here that a number of OECD countries follow this approach (e.g. Chile, Japan, the United States), as in they only provide international trade in services statistics by a limited number of EBOPS 2010 components by important partner countries.

556. Investigating the OECD International Trade in Services by Partner Economy dataset<sup>99</sup>, only a limited number of countries report bilateral trade positions with Argentina (United States, Canada, Russia and some European Union members). Table 8.2 details the Top 5 countries reporting exports from and imports to Argentina for total services in 2016. The sum of the reported positions of these countries correspond to 34% and 66% of the 2016 Argentinian total service exports and imports respectively. This level of coverage, both in terms of number of countries and total share, means that any additional information, particularly in regard to Latin America, would be highly beneficial for economic analysis and policy making.

**Table 8.2. Top 5 countries reporting trade with Argentina at the Total Services level**

**International Trade in Services Statistics (million USD)**

	Imports from Argentina		Exports to Argentina	
	Country	Value	Country	Value
1	United States	2164	United States	8598
2	France	381	Spain	1088
3	Italy	336	Germany	702
4	Spain	323	Italy	672
5	Belgium	249	Netherlands	599

*Note:* As stated, only a limited number of countries report bilateral trade with Argentina.

*Source:* OECD International Trade in Services by Partner Economy dataset; and Total World Trade from the WTO-UNCTAD-ITC Annual Trade in Services Dataset.

557. In regard to coherence, internal inconsistencies and in particular bilateral trade asymmetries, whereby the exports of country A to country B do not align with the imports of country B from country A, exist globally. The OECD WTO BaTIS database<sup>100</sup> creates a consistent methodology in which to align these asymmetries and the inputs provide discussion points for countries in the WPTGS<sup>101</sup> Bilateral Trade Asymmetries meetings, hosted by the OECD around the official WPTGS meeting, and aimed at reconciling these differences.

<sup>99</sup> [https://stats.oecd.org/Index.aspx?DataSetCode=TISP\\_EBOPS2010](https://stats.oecd.org/Index.aspx?DataSetCode=TISP_EBOPS2010)

<sup>100</sup> [https://stats.oecd.org/Index.aspx?DataSetCode=BATIS\\_EBOPS2002](https://stats.oecd.org/Index.aspx?DataSetCode=BATIS_EBOPS2002)

<sup>101</sup> OECD Working Party on International Trade in Goods and Services – an annual meeting is held in March each year at the OECD. INDEC attended the 2018 meeting.

## CHAPTER 9. SHORT-TERM FINANCIAL STATISTICS

### 1. Introduction

558. The OECD collects information on short-term financial statistics on a monthly and quarterly basis. This covers the following topics: (i) interest rates, (ii) share prices, and (iii) monetary aggregates. This chapter describes these topics in more detail and provides an assessment of how Argentina complies with the data requirements.

559. In Argentina, these indicators are produced by the Central Bank of Argentina (BCRA), except share prices which are under the responsibility of the Stock Exchange. The assessment was based mainly on an examination of the existing national and international sources for short-term financial statistics (including the IMF's SDDS metadata, which is provided directly by the BCRA) and the collection of data and metadata supplied by Argentina in response to OECD questionnaires.

### 2. Evaluation of Argentina's short-term financial statistics

#### 2.1. Coverage

560. Coverage is assessed against the scope of the OECD's data collection. There is no formal questionnaire, but a list of data requirements is available on the OECD Data Collection Programme website.<sup>102</sup>

561. The data requested cover the following domains:

- Interest rate (nominal); monthly information on the (average) overnight interbank rate, the short-term rate (i.e. 3 month interbank offer rate) and the long-term rate (i.e. 10 year government bond rate) in annual percentages.
  - Information on the overnight interbank accepted rate is available on the website of the BCRA.<sup>103</sup> Information is available from January 2000. The BCRA also used to publish information on the short-term offered interest rate, but this was discontinued in December 2011. A possibility would be to use the interbank accepted rate (which is published distinguishing between up to 15 days term and more than 15 days term) as a proxy.
  - No information is published by the BCRA on long term interest rates (10 year government bonds); this information is reported to the Bank for International Settlements (BIS) on a daily basis but is available only via the BIS Data Bank, an internal hub for central bank analysts.
- Share prices; Share price index based on national all-share or broad indices, on a monthly basis.

<sup>102</sup>[https://www.oecd.org/statistics/data-collection/Short%20Term%20Financial%20Indicators\\_Target%20indicators.pdf](https://www.oecd.org/statistics/data-collection/Short%20Term%20Financial%20Indicators_Target%20indicators.pdf)

<sup>103</sup><http://www.bcra.gov.ar/Pdfs/PublicacionesEstadisticas/calhis.xls>

- BCRA does not publish this information on its website, though it obtains the information from the Stock Exchange website, and then elaborates series for the BIS Data Bank (an internal hub for central banks analysts).
- Monetary aggregates; Monthly (end of the period) stock data in nominal terms for ‘narrow’ money (i.e. M1) and ‘broad’ money (i.e. M3).
  - BCRA publishes online data for M1 and M3 on a monthly basis.<sup>104</sup> The information dates back to June 1940 and is non-seasonally adjusted.

### 2.3. Compliance

562. Only limited information is provided with regard to the coverage of the series and the methodology used for their compilation. Although more detailed information is available in Spanish and in English on the BCRA website<sup>105</sup> for the overnight interbank rate, the two monetary aggregates, and the series that may be used as proxy for the short-term interbank series. Furthermore, for the other series it would be welcomed if metadata could be made available. From the information that was provided, it can be deduced that the monthly overnight interbank rate is derived as a weighted average of daily interest rates on cash loans granted by financial institutions to other local financial institutions at fixed interest rates. This is in line with the OECD definitions. The same goes for the information on the monetary aggregates. The information is also available daily (for 2019<sup>106</sup> or for all daily series since 1979<sup>107</sup>).

563. With regard to the long-term interest rate and the share price index, it needs to be assessed whether the information provided to the BIS indeed meets the OECD requirements. The share price index published by the Bolsas Y Mercados Argentinos (BYMA its acronym in Spanish)<sup>108</sup> corresponds to the daily close of Merval index. More information about this index is available online on BYMA website.<sup>109</sup> The 10 year government bond index available at Instituto Argentino de Mercado de Capitales (IAMC its acronym in Spanish)<sup>110</sup> corresponds to the internal rate of return of BONTE 26 (a central government bond issued in October 2016 with a maturity of 10 years).

564. The previous short-term interest rate series was discontinued because it may not accurately reflect actual market conditions. Probably the best proxy series would be interbank accepted rates for operations over 15 days, although this may not fully comply with OECD definitions.

### 2.4. Interpretability (Metadata requirements)

565. As mentioned above, methodological information is available, though only in Spanish and in English, on the BCRA website for the overnight interbank rate, the two monetary aggregates, and the series

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<sup>104</sup> <http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/panhis.xls>

<sup>105</sup> All methodological notes are available in English at the following link:

<http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/bolmetin.pdf>.

<sup>106</sup> <http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/cal2019.xls>

<sup>107</sup> [http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/diar\\_cal.xls](http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/diar_cal.xls)

<sup>108</sup> <https://www.byma.com.ar/en/market-summary>

<sup>109</sup> <https://www.byma.com.ar/en/sp-merval-index>

<sup>110</sup> <https://www.iamc.com.ar/home>



that may be used as proxy for the short-term interbank series.<sup>111</sup> No metadata is currently available for the long-term interest rate and the share price index as delivered to the BIS. If these data series were to be made available to the general public, it would be important to also cover them in the methodological information.

### **2.5. Timeliness**

566. The timeliness of short-term financial statistics is in line with the OECD requirements in most respect: all information related to interest rates is available daily, with a delay of only one day, e.g. interest rates agreed on 31 January are released on 1 February; monthly data with daily average figures is released on the third working day of the following month; and monetary aggregates are released with a delay of 45 days after the end of the reference month. The information for the long term interest rate is delivered to the BIS on a daily basis, so it is expected that the timeliness of this information will also not be an issue. However, this should be checked if this series indeed proves to be relevant.

## **3. Overall assessment and recommendations**

567. Relevant information is directly available for the overnight bank rate, as well as for the monetary aggregates. For the long term interest rate and for the share price index, it should be explored whether the information on the internal return rate of BONTE 26 (central government bond issued in October 2016 with a maturity of 10 years) meets the requirements of the OECD data collection

568. Data for the short-term offered interest rate is currently lacking, even this was published up to 2011 until the BCRA stopped to collect this information from the financial entities. As a proxy, BRCA proposed to use the weighted average of interbank accepted interest rates for operations over 15 days term.

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<sup>111</sup> The English link for all methodological notes is available at:

<http://www.bcra.gob.ar/Pdfs/PublicacionesEstadisticas/bolmetin.pdf>

## CHAPTER 10. LABOUR STATISTICS

### 1. Presentation of OECD requirements

569. The OECD routinely collects quarterly and annual labour statistics (generally obtained by summing the corresponding quarterly values) to monitor changes in countries' labour market conditions, to compare key features of the labour market in a country to those prevailing elsewhere, and to support policy analysis.

570. Most labour statistics collected by the OECD are sourced from labour force surveys, which are based on the conventions established by the International Conference of Labour Statisticians (ICLS). Most labour force survey data collected by the OECD refer to counts of the number of people employed, unemployed and not in the labour force, by gender and age groups, and are released after seasonal adjustment (performed either by the NSO or by the OECD).

571. Employment series are also collected by SDD from annual and quarterly national accounts. Statistics on more specific labour market aspects (e.g. hours worked, earnings) are also collected by other OECD Directorates.<sup>112</sup> Availability of Argentinian labour statistics in these other fields is not reviewed here.

### 2. Background on Argentinian statistics in this field

572. Labour force data in Argentina are collected through the permanent survey of households (Encuesta Permanente de Hogares, EPH). EPH collects data on the demographic characteristics of the total population, the socio-economic and labour force characteristics of the population aged 10 and over, as well as household economic resources and "survival strategies".<sup>113</sup> Because of this broad coverage, EPH has separate questionnaires on dwellings, households and individuals.<sup>114</sup>

- The dwelling questionnaire includes questions on type of residence, physical characteristics of the dwelling, availability of infrastructural services and features of the local environment, with information on area (but not Zip) codes.<sup>115</sup>
- The household questionnaire (generally completed by the person most knowledgeable of the household, but which can also be filled by any person above 18 years of age) gathers information on basic demographic characteristics, education and migrant status of each household member, as well as on health coverage, presence of people with disabilities, division of household chores, survival strategies and non-labour incomes received by each household members.

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<sup>112</sup> SDD relies on a broader range of labour market data to compute three measures of "job quality": i) labour market insecurity (based on LFS-inflows into unemployment, the share of unemployed people receiving unemployment benefits, and OECD model-based estimates of unemployment benefit replacement rates); ii) earnings quality (based on national accounts and survey measures of average earnings and their distribution); and iii) an individual-based, composite measure of the quality of the working environment (based on workers' self-reports on their working conditions). The data used for computing these measures are collected by SDD in the case of the measure of the quality of the working environment; and by other OECD directorates in the case of earnings quality and labour market insecurity.

<sup>113</sup> Chapter 12 reviews the information on household economic resources collected from EPH.

<sup>114</sup> All questionnaires were last revised by INDEC in 2003.

<sup>115</sup> Three visits to each dwelling are foreseen in the event of non-contact with the household to be interviewed.

- The individual questionnaire (applied to all persons above 10 years of age) asks questions to determine the respondents' labour market status (i.e. employed, unemployed, not in the labour force), type of occupation (i.e. employees, self-employed, employers, family workers), usual hours of work, main job (by type and size of firm, industry, occupation, place of work), number of jobs held, willingness to work additional hours, and labour income received.

573. EPH surveyors interview respondents face-to-face. They are encouraged to interview all present members on their own labour market status, although household members above the age of 18 may answer questions on the labour market conditions of any other household member.<sup>116</sup> Three visits to each dwelling are foreseen in the event of non-contact with the household to be interviewed, with special teams making a further visit to dwellings containing households who were either absent during the previous attempts or refused to answer.

574. EPH is run under the joint responsibility of INDEC's Directorate of the Permanent Household Survey (which is part of INDEC's National Directorate of Living Conditions) and of provincial directorates on statistics, which report to provincial governments and are part of the National Statistical System.

575. While INDEC is responsible for methodological aspects (e.g. designing survey weights), training of surveyors, and monitoring of activities in the (24) provinces, as well as carrying out all EPH activities in the area of Gran Buenos Aires, provincial teams are responsible for implementation and fieldwork, subject to bilateral agreements (specific to each survey) with INDEC. The quality of EPH results benefits from the existence of a permanent staff of surveyors (something that does not hold for other INDEC household surveys). Steps have recently been taken to improve relations between INDEC and the provincial statistical directorates, through the creation of six regional offices (two of which are already operational).

576. EPH has been fielded since the 1970s. Fieldwork was undertaken in May and October up to 2003, and continuously thereafter. Quarterly estimates cover the resident population living in private dwellings in the areas covered by the survey (see below), and are representative of the resident population living in private households at the level of a selection of 31 urban agglomerations with more than 5,000 at the level of each of the 6 statistical regions. Additionally, annual data are provided for a selection of inland agglomerations with more than 2,000 inhabitants representative at the provincial level.. INDEC plans to restart publishing estimates at the provincial level (and for the set of urban centres with more than 2,000 inhabitants in each province) by the end of 2019, based on the EPH data for the third quarter (which is based on a large sample, see below).

577. EPH is based on a probabilistic, two-stage (areas and dwellings) sample, with households rotating every 2 quarters.<sup>117</sup> The EPH sample<sup>118</sup> is drawn from the Master Sample of Urban Areas, which is currently based on the 2010 Population and Housing Census.

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<sup>116</sup> The procedures applying to EPH questions on income sources are described in Chapter 11.

<sup>117</sup> Households selected for inclusion stay in the sample for two consecutive quarters, are not interviewed in the two following quarters, and are then re-interviewed in the next two quarters. This implies that 50% of the sample is unchanged between two consecutive quarters and between the same quarter in two consecutive years, and that 37% of the sample is common between the samples referring to two consecutive semesters.

<sup>118</sup> The EPH sample size (around 26,000 dwellings each quarter, in a country with around 44 million inhabitants) is broadly comparable to that of other OECD countries (e.g. the sample of the US labour force survey is 162,000 households each quarter, in a country with around 327 million inhabitants).

578. EPH-based estimates on the labour market and other socio-economic characteristics of the population are disseminated through various issues of the *Trabajo e Ingresos* series. Since the first quarter of 2018, a single quarterly publication (“Labour market, socio-economic rates and indicators”) has replaced the two periodic technical reports (“Labour market, main indicators” and “Labour market, socio-economic indicators”), with published databases allowing users to calculate indicators for any desired age range.

### 3. Evaluation of the availability, quality and comparability of Argentinian statistics

579. EPH data are assessed below for their compliance with respect to selected criteria of the OECD Data Quality Framework. The assessment is based on information provided by INDEC during the OECD mission and on the OECD questionnaires completed by INDEC staff. The assessment refers to labour force survey data as available since March 2016.

580. The fundamental criteria for assessing quality of data used in this review are coverage, compliance with international standards, interpretability, timeliness, coherence, accuracy and credibility.

#### 3.1. Coverage

581. Coverage is the extent to which statistics meet OECD requirements in terms of variables, breakdowns, frequencies, measurement units, population coverage and availability of historical data.

582. EPH-based statistics comply with OECD requirements in terms of variables, detail, frequency and measurement units, while raising issues in terms of population coverage and availability of historical time series. Counts (non-seasonally adjusted) of people employed, unemployed and not in the labour force – for the total population, (6) regions – are routinely included in the *Trabajo e ingresos* series released by INDEC each quarter. Data are available by gender and for different age groups; and, for employment data, by main type (employees and self-employed) and educational attainment (8 categories). The EPH definitions of private households and residence are broadly aligned with international standards.<sup>119</sup> The EPH questionnaire collects information on all household members and their relation to the household reference person,<sup>120</sup> as relevant for the survey’s analytical framework and sample stratification. EPH does not question survey participants about the relation between each household member, as the analysis of complex household arrangements is deemed to be out of the scope of the EPH analytic framework.<sup>121</sup>

583. The main limit of EPH in terms of population coverage is the exclusion from the sampling frame of the survey of both the population living in urban areas with less than 100,000 inhabitants and of the population living in rural areas. EPH is currently run in 31 urban areas with population of 100,000 people of

<sup>119</sup> EPH defines households as a person or groups of persons, related or not, who live under the same roof and sharing food and other essential expenditures. Usual residents in the households are those living in the dwelling in the past 6 months or more; living in the dwelling for less than 6 months because one of the following reasons: working or looking for work elsewhere; living in the dwelling for 4 or more days a week due to work or education; absent due to the specific nature of their occupation without having established their residence elsewhere; living in another dwelling but occupying the present dwelling for at least 6 months due to non-work reasons; absent from the dwelling for less than 6 months for non-work reasons.

<sup>120</sup> EPH asks all household members to identify the household reference person. In case of disagreement, the reference person is identified based on a sequence of criteria (i.e. the household member identified by others as “financially responsible for the household”, the oldest person in the household, or whoever answer the question).

<sup>121</sup> Information on complex household arrangements is available through other INDEC surveys, such as the 2018 ENGHo (see Chapter 11).

more, covering 65% of the country's population.<sup>122</sup> To increase population coverage, the EPH survey conducted in the third quarter of each year since 2010 covers all urban areas with more than 2,000 inhabitants. This extended survey covers around 92% of the population of the whole country. INDEC plans to include all urban areas with more than 2,000 inhabitants in the EPH regular collection, following implementation of the 2020 Population Census (which will provide the basis for a new sample framework).

584. Even so, 8% of the Argentinian population living in rural areas is excluded by the EPH, which means that even Urban extension cannot be considered as nationally representative. The exclusion of the rural population partly reflects structural features of the country: its low population density (15.9 people per square kilometre) implies that efforts to reach people in rural areas would significantly increase survey costs; in addition, a large number of dwellings in rural areas are inhabited only at specific times in the year. INDEC hopes to extend the geographical coverage of the EPH to rural areas in the future: to that end, the INDEC Directorates responsible for the EPH, on one side, and Statistical Methodology, on the other, are currently conducting tests in the perspective of periodically including rural areas in the national totals. The 2020 Population and Dwelling Census should provide the information necessary for integrating rural areas into the roster sample.

585. A further problem affecting EPH coverage relates to the completeness of the Master Sample of Urban Areas from which the EPH sample is drawn. The Master Sample is based on the 2010 Housing and Population Census, implying that measurement problems affecting the census also affect the EPH. Disruption in fieldwork at the time of the 2010 census led to a number of quality problems such as duplicate records (amounting to around 1% of the total population) and omissions from census counts (equivalent to around 2% of the population). INDEC is currently taking steps to avoid the repetition of these problems in the context of the 2020 census.

586. With respect to the availability of long-term historical data, the main limit is the availability of reliable time-series only since the second quarter of 2016. Following the declaration of an “administrative emergency in statistics” in January 2016, INDEC announced that all EPH-based data published between January 2007 and December 2015 (still available on the INDEC website) should be “used with caution”, due to concerns about possible manipulation of the underlying data.<sup>123</sup> These manipulations seem to have taken the form of departures from the established survey protocols so that, for example, the person interviewed would be recorded as having worked for pay in the survey reference week whenever he/she received an employment benefit (irrespective of how they answered the question on having worked in the week). This implies that existing EPH micro-records do not allow computing credible labour force survey statistics for the period 2007-2015 that could be compared to those available for earlier and later periods.<sup>124</sup>

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<sup>122</sup> While exclusion of sparsely populated areas from the geographical scope of labour force surveys is not unique to Argentina (e.g. the Australian's LFS excludes its Northern Territory), the size of the population excluded from EPH (35% of the Argentinian population) is large when compared to OECD countries.

<sup>123</sup> The ILO, on its own website, says that Argentinian labour force data for this period are “under observation”. The methodological annex to the EPH technical report for the second quarter of 2016 (available at [https://www.indec.gob.ar/ftp/cuadros/sociedad/anexo\\_informe\\_eph\\_23\\_08\\_16.pdf](https://www.indec.gob.ar/ftp/cuadros/sociedad/anexo_informe_eph_23_08_16.pdf)) provides more detailed information on the problems affecting the 2007-15 series.

<sup>124</sup> Long-term historical data starting since 1974 are available on the INDEC website (<https://www.indec.gob.ar/bases-de-datos.asp>). These, however, cannot be compared to those available for the period after 2006 due to changes in the questionnaires introduced in 2003 and other methodological differences.

### 3.2. Compliance

587. Compliance refers to the extent to which national statistics are compiled based on existing international standards, guidelines and classifications.

588. International standards for labour force surveys are defined by the International Conference of Labour Statisticians. The EPH questionnaire complies with these standards, with detailed questions pertaining to all ICLS criteria; if anything, one issue with the current questionnaire is whether it is not *too detailed* for a continuous survey.<sup>125</sup> The survey allows deriving counts of the population aged 10 and over into the main labour force categories (employed, unemployed and inactive) that conform to international criteria. National statistics on unemployment (*desocupación abierta*) conform to these international standards, in particular in respect of the criteria of “active job search” and “availability” to take up a job if one was available.<sup>126,127</sup>

589. In terms of classifications, EPH data on employment by industry and occupation are based on national, rather than international, classifications.<sup>128</sup> Correspondence tables allow users to convert EPH data based on national classification to international ones (for those series that are available on-line).

590. A key concern for labour market statistics in Latin America is capturing the phenomenon of informality. Informality encompasses both workers in the informal sector<sup>129</sup>, and workers employed informally (i.e. without a written contract or social protection) by firms in the formal sector. While there is no international standard for measuring informality in labour force survey, the OECD relies on a working definition that includes “salaried workers who are not affiliated to social security systems and own-account workers whose business is not registered”. Questions in the EPH questionnaires allow identifying employees who are not receiving various types of social benefits (e.g. health-care, paid holidays and sickness days) or who are in jobs not covered by old-age benefits, as well as (some) self-employed workers in unregistered activities.<sup>130</sup> EPH does not currently provide information on social security coverage of self-employed workers, a limit that INDEC plans to address in the near future. Even with this extension, however, questions may be raised about the limits of the formal/informal dichotomy. For examples, some registered employees might not be entitled to all social security benefits, and some employers in the formal sectors may not contribute to social security on the behalf of their workers. INDEC is currently considering plans to adjust the EPH questionnaire to include a set of questions to identify indicators to obtain information about this phenomenon regularly, including self-employed workers social security contributions.

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<sup>125</sup> In addition to the standard LFS questions, the EPH questionnaire also includes detailed questions on household income, household survival strategies and other aspects that could, arguably, be asked less frequently. This issue is discussed further in Chapter 13.

<sup>126</sup> EPS defines “active search” (in the last 30 days) based on the following actions: making contacts, attending job interviews; sending CV, answering to poster/newspaper/internet job ads; starting a self-employment job; asking neighbours/relatives/friends; checking in job boards, employment plans, agencies, having someone else looking for a job for the interviewed person; other active way.

<sup>127</sup> Definitions of key labour market categories, and more detailed tables on how activity status is determined, are included in the methodological document describing the 2003 reform of EPH.

<sup>128</sup> In the case of occupation, the national classification is consistent with ISCO only up to the second digit.

<sup>129</sup> The ILO defines the informal economy as all economic activities that are, in law or in practice, not (or insufficiently) covered by formal arrangements.

<sup>130</sup> The EPH questionnaire includes questions to distinguish, among the self-employed, those working in business that are legally established and those working in businesses that are not.

591. Beyond the issue of counting the number of informal workers, consideration should be given to developing a specialised survey module capturing a broader range of features shaping work relations and job quality as experienced by all workers (formal and informal).<sup>131</sup>

### 3.3. Interpretability

592. Interpretability of data reflects the ease with which users may understand and properly use the data. For the purposes of this assessment, interpretability is understood narrowly as “Availability of Metadata”. The adequacy of these metadata (i.e. definitions of concepts, target populations and variables, and information describing the limitations of the data) largely determines the degree of interpretability.

593. Questionnaires (in Spanish) are available for all the EPH elements (dwellings, households and individuals). Methodological notes accompanying quarterly releases (*Informes Técnicos*) provide some limited information on the characteristics of the sample, the geographical coverage of the survey, its reference period, the use of population projections to update the Master Sample, the definition of key concepts and measures. Availability of English translations for the EPH questionnaires would be important to allow OECD (and other) analysts to correctly interpret national labour force statistics.

594. Since the first quarter 2018, methodological notes accompanying EPH technical reports have expanded the methodological information provided to users, mainly in terms of calculation of coefficients of variations and standard errors of the estimates, adjustment factors, selection of areas and dwellings, and sample weights.

595. More detailed methodological information on EPH is available through the document *La Nueva Encuesta Permanente de Hogares de Argentina*, which describes the main changes to the survey introduced in 2003, when the survey became continuous.

596. EPH series are not seasonally adjusted by INDEC, as is common practice in most OECD countries. This reduces users’ ability to properly interpret the data published by INDEC.

### 3.4. Timeliness

597. The timeliness with which data are made available to users is a function of both the frequency of the data collection and of the time needed by INDEC to process the data and to release its estimates.

598. EPH labour force estimates are released each quarter, based on a calendar made available by INDEC at the beginning of each year. The calendar now also includes the release dates of the quarterly user databases.

599. EPH estimates become available around 2 ½ months after the reference period (e.g. estimates for the 4th quarter of 2017 were available on 20 March 2018) through the *Trabajo e Ingresos* series. While the OECD asks member countries to transmit labour force data within 2 months after the end of each quarter, the timeliness of EPH data is within the range observed in most OECD countries.

600. The quarterly user database is released approximately 1 month after the EPH technical report.

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<sup>131</sup> The OECD released in late 2017 a set of *Guidelines on Measuring the Quality of the Working Environment*, which include prototype survey modules and questions pertaining to 6 key aspects of the working environment and 17 more detailed job characteristics.

### 3.5. Coherence

601. Coherence is the extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets and over time.

602. EPH statistics on the labour market satisfy the coherence criterion to the extent that they largely follow international standards. There are only limited risks of incoherence with respect to other statistical sources as EPH is the only regular source of information on labour markets. Risks of incoherence do however arise with respect to specialised surveys undertaken by the Ministry of Labour (see Chapter 12).<sup>132</sup>

603. Nevertheless, there are clear issues of coherence for the INDEC published time series. Breaks in series occurred in 2003 (when EPH became continuous and questionnaires were revised),<sup>133</sup> 2006 (when three urban agglomerations were included to the survey) and in the third quarter of 2013 (when a new sample design was introduced).

604. As mentioned above, more serious issues for the temporal coherence of EPH data relate to statistics before and after 2016, when the authorities declared a “statistical emergency”.<sup>134</sup>

### 3.6. Accuracy

605. Accuracy refers to the extent to which data correctly describe the quantities or characteristics they are designed to measure, and whether procedures are in place to ensure that source data are adequate, statistical techniques sound, and statistical outputs validated.

606. Accuracy is a function of both sampling and non-sampling features of the survey. With respect to the first, the EPH probabilistic design allows INDEC to compute (and report in its quarterly bulletin) standard errors and confidence intervals for key measures. With respect to non-sampling errors, EPH is affected by high unit non-responses, which ranged between 30 and 35% in recent years. There are also large differences in non-response rates across clusters and urban areas, differences that have increased in recent years. While the relatively high unit non-response partly reflects the voluntary nature of participation in EPH, steps should be taken to reduce it. INDEC staff regularly analyse the characteristics of unit non-responses by agglomeration stratum and rotation group. A specific project has recently been launched by INDEC to increase participation to the survey.

607. Information on item EPH non-responses, and the correction procedures applied by INDEC to increase participation to the survey.<sup>135</sup>

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<sup>132</sup> For example, the *Encuesta de Protección y Seguridad Social* (ENAPROSS).

<sup>133</sup> Key methodological changes associated with the move in 2003 to a continuous survey are detailed in the document ‘Argentina new permanent household survey’ (*La Nueva Encuesta Permanente de Hogares de Argentina*)

<sup>134</sup> For details, see “Anexo Informe de prensa Mercado de trabajo: principales indicadores. Segundo trimestre de 2016. Consideraciones sobre la revisión, evaluación y recuperación de la Encuesta Permanente de Hogares (EPH)”, ([https://www.indec.gob.ar/ftp/cuadros/sociedad/anexo\\_informe\\_eph\\_23\\_08\\_16.pdf](https://www.indec.gob.ar/ftp/cuadros/sociedad/anexo_informe_eph_23_08_16.pdf)).

<sup>135</sup> Information on item EPH non-responses, and the correction procedures applied by INDEC, is included in the technical report series launched in early 2018 (“*Mercado de trabajo. Tasas e indicadores socioeconómicos (EPH) – 4. Aspectos metodológicos*”: [https://www.indec.gob.ar/uploads/informesdeprensa/mercado\\_trabajo\\_eph\\_1trim18.pdf](https://www.indec.gob.ar/uploads/informesdeprensa/mercado_trabajo_eph_1trim18.pdf)).



### 3.7. Credibility

608. Credibility is the extent to which users can be confident when using statistics. This is a function of both the governance and legal infrastructure regulating the production and release of official statistics, and of accessibility of the statistics produced by users.

609. The concerns about manipulation of EPH statistics in the period 2006-15 have weighed heavily on the credibility of official statistics in this field. While INDEC has taken steps to restore credibility following of the “statistical emergency”, this will take time to restore fully. Steps should be taken to improve the role of provincial statistical offices in terms of institutional capacity, availability of human resources, infrastructure and budget.

610. In terms of accessibility, key EPH statistics are released each quarter in the *Informes Técnicos* series on *Trabajo e Ingresos*, which provide information on main indicators for the entire population and on the socio-economic indicators for the population of working age. EPH-based information is also included in INDEC’s monthly *INDEC Informa* series, while summary tables and the EPH user database are available on the INDEC website. Compared to OECD Members, however, the information included in *Trabajo e Ingresos* is quite limited.

## 4. Overall assessment and recommendations

611. Based on this assessment, Argentinian labour force statistics are generally compliant with OECD criteria, and suitable for providing the data required by the Organisation.

612. Limited population coverage is the most significant shortcoming of EPH, as current estimates for the full year exclude a significant share of the population. While the extension of the survey conducted in the third quarter of each year to smaller urban areas is a significant improvement, further steps are needed to achieve national representativeness. Improvements should also be considered in other areas. To summarise, the review recommends that INDEC:

1. Extends the EPH population coverage to all urban areas in all quarters, and includes the population living in rural areas in at least one quarter, to allow periodic reporting of estimates for the country as a whole.
2. Ensures that the 2020 population census is free from the problems that affected the 2010 census, and that the Master Sample is fully aligned with the Census.
3. Considers the possibility of including a matrix detailing the relationships between all household members, to identify complex households and living arrangements.
4. Improves the availability of metadata, in particular by providing information in English, covering developments in survey methodology since 2003, and providing more information on the nature of the problems affecting EPH data from 2007 to 2015.
5. Provides information on social security coverage of self-employed workers, to better identify informal workers.
6. Takes steps to revise the EPH content and to design a specialised module for assessing different features of workers’ job experience, in the perspective of getting a more rounded appreciation of job quality reaching beyond the formal/informal dichotomy.
7. Routinely provides seasonally adjusted data.

8. Take steps to reduce unit non-response rates, and provides information on differences in non-response rates across local areas.
9. Adds detailed geographical identifiers (beyond simply province or urban agglomeration).
10. Strengthens coordination with provincial directorates of statistics.
11. Extends the rotating panel of the survey, to allow following households over a longer period than the 18 months currently possible.

## CHAPTER 11. INCOME DISTRIBUTION

### 1. Presentation of OECD requirements

613. The OECD regularly collects tables and indicators to monitor the distribution of household income in member countries. As the OECD lacks access to countries' microdata, indicators are computed by national contact points in countries (most commonly in national statistical offices) who provide a standard set of semi-aggregated tables based on specifications set by the OECD Secretariat.<sup>136</sup> All OECD indicators in this field (gathered in the OECD Income Distribution database, IDD) are based on the welfare metric of *equivalised household disposable income*, i.e. income net of direct taxes and social security contributions paid by households, including current cash transfers received from the government and other sources, and net of current transfers paid to other households. This income measure is adjusted for differences in household size (i.e. equivalised) and then attributed to each household member.<sup>137</sup> External users have access to a subset of the data feeding the OECD IDD through the OECD dissemination platform (OECD.Stat).

614. The choice of the national dataset best suited for producing comparable statistics is made by the OECD in consultation with national authorities. For most countries in the OECD IDD, data are sourced from household surveys, although in some cases the agency responsible for the survey integrates survey records with administrative data (e.g. on taxes paid by households or public benefits received by them) or with model-based estimates of the taxes paid and (public) benefits received by each household.<sup>138</sup>

### 2. Background on Argentinian statistics in this field

615. National data on income distribution and poverty are regularly produced by INDEC based on the EPH (the same source described in Chapter 10), which is also the natural candidate for compiling the OECD IDD. All of the EPH general features described in Chapter 10 with respect to labour force survey data also apply in the case of income distribution data.

616. EPH, in addition to the standard labour force survey questions, includes questions on the income earned by all household members, as the stated goal of the survey is to provide information on the socio-economic (e.g. activity status, number of jobs held, characteristics of the main job), demographic (e.g. age, sex, marital status), and other characteristics (e.g. health, education, income) of the population living in private households.

617. Combining a labour force survey and a household income survey in the same instrument is quite rare in OECD Members.<sup>139</sup> This is because labour force questionnaires that collect information on all household

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<sup>136</sup> Detailed Terms of References for the OECD Income Distribution Database (IDD) are available at <http://www.oecd.org/els/soc/IDD-ToR.pdf>, for specifications used since 2012; and <http://www.oecd.org/els/soc/IDD-ToR-Until2011.pdf> for those pertaining to earlier years.

<sup>137</sup> The adjustment used by the OECD is based on the square root of household size, with no consideration of age differences among household members.

<sup>138</sup> For some OECD Members (mainly the Nordic countries), data and estimates are entirely based on administrative registers.

<sup>139</sup> The United States Census Bureau collects income distribution data for the entire country through an annual supplement (the Annual Social and Economic Supplement) to the monthly labour force survey (the Current Population

members generally rely on “proxy respondents” (e.g. when the person to be interviewed is not at home) – a method that, while adequate for collecting basic labour force characteristics, is liable to produce larger reporting errors when used to collect income data (both on income streams accruing to all adult members, as reported by each of them; and the streams accruing to the household as a whole, as reported by the household reference person). To minimise the problem posed by the use of proxy respondents when collecting income data, the field methodology of EPH relies on repeated visits to obtain income information not immediately known by the proxy.

618. In the case of EPH, information on labour income is based on questions asked to each household member on their monthly earnings and self-employment income, received in cash and in kind, from both their main and secondary jobs.

619. Information on non-labour income streams is drawn from the household questionnaire, which includes questions on monthly income from capital (interest received, dividends, rents) and current transfers received from both government (e.g. old-age pensions, unemployment benefits, social assistance) and private sources (e.g. transfers received from other households, but not on transfers paid). Once respondents have indicated that the household receives from some form of non-labour income, the individual recipients of each type of non-labour income are identified, and these income streams are included in the total income of each respondent. Cases in which non-labour income cannot be attributed to a specific household-member are rare; in these cases, non-labour income is still included as income of the whole household.

620. Beyond EPH, micro-level information on household income is also available through the survey of household income and expenditures (*Estudios de Gastos e Ingresos de los Hogares*, ENGHo, cf. Chapter 12). ENGHo is used to derive weights for the consumer price index as well as for measuring and updating national poverty lines, but also contains questions on the income earned by different household members that are more detailed than those included in EPH.

### **3. Evaluation of the availability, quality and comparability of Argentinian statistics**

621. The fundamental criteria for assessing quality of data are coverage, compliance with international standards, interpretability, timeliness, coherence, accuracy and credibility.

#### **3.1. Coverage**

622. Coverage is the extent to which statistics meet the requirements of the OECD in terms of variables, breakdowns, frequencies, measurement units, population coverage and availability of historical data.

623. All considerations made in Chapter 11 on EPH coverage also apply here. Coverage of the regular EPH is limited to the population living in major urban areas, i.e. excluding around 35% of the Argentinian population living in private households. In the third quarter of each year, the survey coverage of EPH is extended to smaller urban areas (with more than 2,000 inhabitants), raising the population coverage to 92%.

624. One aspect of coverage that is very important for income distribution data is the extent to which surveys capture both ends of the distribution. Having a good coverage of the “high end” of the distribution (where most income is concentrated) significantly impacts upon summary measures of income inequality, an impact that is especially large in countries where inequality is comparatively high. While underreporting

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Survey, CPS). The supplementary questionnaire is administered to a subset of CPS respondents, which allows combining data from the two sources for the same respondent.

and non-coverage of the rich are problems that affect all surveys, some surveys are better than others, and statistical offices in some countries (e.g. the United Kingdom) have taken steps to address this problem. Comparisons between EPH and tax data suggest that EPH-based estimates of income inequality may be significantly affected by the small number of rich households participating in the survey.<sup>140</sup>

### 3.2. Compliance

625. Compliance refers to the extent to which national statistics are compiled based on existing international standards, guidelines and classifications.

626. International standards on income distribution surveys were defined by the ICLS in 2003, with further guidance provided by the Canberra Group Handbook on Household Statistics (UNECE, 2011). The guidance provided mainly pertains to units of analysis, units for data collection, residence criteria, reference period used for assessing the income received, and income streams considered.<sup>141</sup>

627. EPH-based statistics on income distribution generally conform to these standards. However, the more detailed methodological features of EPH prevent valid comparisons with the information available for OECD countries. This is because EPH excludes, or inadequately treats, a range of non-wage income streams that are necessary for computing the OECD welfare metric of household disposable income.

628. The main limit of EPH in terms of income streams lies in the absence of information on the taxes and social security contributions paid by households.<sup>142</sup> In EPH, formal employees report their earnings net of taxes (which are deducted at source by the employer) while self-employed workers report their income after deducting expenses (including tax payments) that are related to their productive activity. Gross (i.e. pre-tax) income flows are reported by people receiving other (non-wage) income streams, such as dividends and rents. This asymmetry implies that EPH cannot be used to measure household disposable income (i.e. income net of taxes and social security contributions paid by households), the OECD welfare metric, for the entire population. Further, EPH cannot be used to measure direct taxes and social security contributions paid by households, an item that is part of the income breakdown used for OECD reporting. The size of taxes paid by Argentinian households is not negligible, implying that EPH income statistics miss a significant part of government redistribution.<sup>143</sup> Addressing this problem would require changes in the EPH questionnaire to probe respondents about the amount of taxes on income and wealth they paid. While hard data on these

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<sup>140</sup> According to Alvaredo (2007), the number of EPH respondents with income exceeding USD 500,000 in 1997 was less than 1% of the corresponding number among tax filers.

<sup>141</sup> UNECE (2014) provide both a “conceptual definition” and an “operational definition” of household income. The operation definition distinguished between a number of income-items that should be separately reported: 1) income from employment; 2) property income; 3) income from household production of services for own consumption; 4) current transfers received; 5) current transfer paid. All components 1 to 4 should be recorded on a “gross” basis, i.e. before deduction of taxes paid, with taxes on income and wealth and social security contributions paid by households included in the fifth component.

<sup>142</sup> Other Latin American countries share this feature with Argentina, with information on taxes paid by household either falling outside the scope of the survey or being unclear how they are reported by respondents.

<sup>143</sup> According to the 2017 *OECD Economic Survey of Argentina*, general government revenues accounted for 34% of GDP in 2016, with taxes levied on households (personal income taxes, property taxes, and social security contributions paid by workers) accounting for around 22% of the total. While few people in Argentina pay personal income taxes (the threshold for paying income tax applied to single tax payers is 5 times the average wage, the highest value among all OECD and Latin American countries), social security contributions are levied on all formal workers at almost the same rate (i.e. with hardly any progressivity).

questions are difficult to obtain based on self-reports, consideration should be given (e.g. when drafting the statistical law) to allowing INDEC to use personal records on taxes and social contributions<sup>144</sup> paid for statistical purposes (possibly subject to the prior consent of people being interviewed).<sup>145</sup>

629. Similar considerations apply on the benefit side. Since 2003, the year when the EPH questionnaire was last re-designed, the Argentinian social welfare system has undergone significant changes, through a process of consolidation of existing programmes aimed at ensuring a minimum level of economic resources to a range of vulnerable groups. While social benefits from these public programmes are, in theory, included in the total income assessed by EPH, these benefits cannot be distinguished from other income streams; this feature that significantly reduces measures of the redistributive effect of public transfers. INDEC is currently revising the EPH questionnaire to allow identifying the recipients of these benefits, and the amounts received.

630. Measurement problems are also important for most types of (non-wage) market income such as interest received, dividends, rents, etc. One way of improving measurement of capital income would be to include questions (or a specific module) to assess the stock of wealth held by each household (no information on wealth distribution is currently available for Argentina); information on the stocks of different types of assets and liabilities could then allow assessing the accuracy of respondents' assessment of the capital income received.

631. While not being part of the OECD definition of household disposable income, social transfers in kind (i.e. health care, education and social housing) delivered to households by the general government and by non-profit institutions also contributes to the redistributive effect of government programmes. On health, the EPH questionnaire currently includes questions on type of coverage, which allow distinguishing between contributory and non-contributory schemes while, concerning education, it asks whether school-aged children are attending a private or public school. Better capturing the effects of social transfers in kind would require including in the EPH questionnaire specific questions about eligibility and use of different public programmes, or the use of specific EPH modules.<sup>146</sup>

632. Other EPH features relevant for assessing compliance with international standards on income distribution include:

- *Reference periods.* International standards and guidance state that income distribution statistics should relate to the full year. The EPH reference period for both labour and non-labour income is the previous month. While this short reference period allows computing estimates for the full year (and may reduce respondents' recall errors), it also implies higher income volatility (hence higher poverty) relative to the longer periods used in most other countries, and lead to under-reporting of income streams that are paid less frequently (e.g. bonuses, dividends).

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<sup>144</sup> Special measurement considerations are raised by the many changes that have affected, over the years, the Argentinian pension system. In addition to direct taxes (and current transfers paid to other households), the OECD classification subtracts from gross income the contributions paid to 'employment-related social insurance schemes', where such schemes meet at least one of the following conditions: i) participation is obligatory; ii) the scheme is collective; and iii) the employer contributes on behalf of an employee. Based on this definition, compulsory contributions to individual-based capitalisation schemes should be considered as part of 'employment-related social insurance schemes'.

<sup>145</sup> An intermediate solution, used by some OECD countries, is to rely on micro-simulation models to impute the amount on taxes paid by each household member (or by the household as a whole) based on their survey characteristics.

<sup>146</sup> Special EPH modules have been used in the past to assess respondents' housing conditions, their use of health care, education and social services, unemployment, informality, etc.

- *Measurement units.* The *Canberra Handbook* identifies the household (i.e. any person or groups of people, related or unrelated, living in the same home or consuming food paid for by the same budget) as the preferred unit for data collection, and the individual as the preferred unit of analysis. EPH choices of measurement units and household definition are coherent with international standards. The same broadly applies to the criteria used to identify the household reference person, and to determine the residence status of household members.
- *Equivalence scale.* EPH-based indicators on income distribution are based on the concept of income per capita, i.e. with no adjustment for household economies of scale and for differences in needs according to individual characteristics. While this differs from the OECD's approach, information is available in EPH on household size and age of each household member that would allow computation of 'equivalised' income amounts.
- *Weights*<sup>147</sup>. EPH weights (households and personal) are measured through a two-stage process, the first based on the probability of selection, the second to reflect different unit non-response rates. For the second stage, EPH relies on re-weighting, i.e. assuming that unit non-responses are random. Auxiliary information, collected by EPH, on the reasons for non-responses are not currently used to assess whether these unit non-responses are correlated to area characteristics.

### 3.3. Interpretability

633. For the purposes of this assessment, interpretability is understood narrowly as "Availability of Metadata", as the adequacy of these metadata (i.e. definitions of concepts, target populations and variables, and information describing the limitations of the data) largely determines the ease with which users may understand and properly use the data. All considerations made in Chapter 10 also apply here.

### 3.4. Timeliness

634. The timeliness with which data are made available to users is function of both the frequency of the data collection and of the time needed by data producers to process the data and to release their estimates.

635. The general considerations made in Chapter 11 also apply here. INDEC releases EPH-based information on the evolution of income distribution in each quarter through its *Informes Técnicos* report ("Evolución de la distribución del ingreso"). This bulletin becomes available 3 months after the end of each quarter, and provides information on income deciles and Gini coefficients for household (total and per capita) and individual income, for the total population, the population with jobs and all employees.

636. While few OECD countries match the timeliness of EPH income distribution data, this comes at the price of an overly "heavy" survey instrument, and of limits in the income concept that is measured. To the extent that a trade-off exists between frequency and depth, consideration should be given to combining a less frequent (e.g. annual) in-depth income survey with few higher-frequency questions (e.g. not asked to all household members, or limited to some income streams such as earnings) to assess short-term changes in income inequality.

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<sup>147</sup> Weighting is the process used to adjust the data drawn from the sample to provide estimates for the total population.

### 3.5. Coherence

637. Coherence is the extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets and over time. The considerations made in Chapter 10 on temporal coherence within the EPH dataset apply here.

638. Very important for OECD income distribution data is the coherence between measures of household disposable income for all respondents and income measures across both population groups (e.g. by income decile, age of the household reference person, or household type) and different income components.<sup>148</sup> Coherence across OECD tabulations hence depends on the data provider applying consistent treatments to individual records affected by item non-responses. While all OECD countries apply (multiple) imputations in the case of item non-responses, this practice is less common in non-OECD countries, leading to incoherencies between (say) mean income estimates for the country as a whole and those obtained by summing across mean income items. Avoiding such incoherencies requires the consistent application of imputation methods in cases of item non-responses, and adequate documentation of the methodologies used. INDEC is currently considering taking steps in this direction.

639. Specific issues for the coherence of income data arise when considering the relation between EPH and ENGHo<sup>149</sup>, the (lower frequency) income and expenditure survey used for deriving CPI weights and as an input for the measurement of poverty.<sup>150</sup> ENGHo was conducted in 1985/86 (limited to Gran Buenos Aires), 1996/97, 2004/05 and 2012, but results from the 2012 ENGHo were of limited usefulness due to response rates that were low on average and markedly different across provinces.

640. In addition to measuring consumer expenditures, ENGHo provides income measures that differ in a number of respects from those produced by EPH. In particular, ENGHo:

- Provides information on both current income and on a broader concept of “non-current” income, which includes irregular and one-off streams. While non-recurrent income streams are not part of international definitions of household income, their measurement can support distributive analysis in other respects.
- Collects data on a broader range of (current) income streams in ways that are better aligned to international standards. As EPH, ENGHo collects data on earnings, labour income for different categories of self-employed workers, capital income, old-age pensions, income from other sources, and goods produced for home consumption. However, differently from EPH, it also collects information on taxes paid (which could allow developing measures based on the OECD metric of

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<sup>148</sup> OECD income distribution data are reported for 10 income deciles, 14 household types and 7 age groups. Income data for each decile distinguish across 5 main income categories and 10 income sub-categories.

<sup>149</sup> ENGHo, whose sample is interviewed throughout the year, is based on five different questionnaires providing information on: 1) the general characteristics of households; 2) daily (i.e. recurrent) household expenditures (drawn from diaries completed for each day of the reference week and based on a list of 24 expenditure items); 3) other (i.e. non-recurrent) household expenditures; 4) personal expenditures of each adult member of the household; and 5) household income.

<sup>150</sup> Since 2016, INDEC has released estimates of poverty based on the costs of two consumption baskets: 1) a basket of food products needed to satisfy basic energetic and caloric needs (*canasta básica alimentaria, CBA*), set at the level of 2750 calories per adult equivalent; and 2) a basket that adds to the CBA the cost of non-food items (to obtain the cost of the *Canasta básica total, CBT*), based on observations of “Engel coefficients” (the share of food in total household expenditures) in the 2004/05 ENGHo, and extrapolated to later years through changes in relative prices. ENGHo provides the information needed to determine the composition of the baskets, while CPI data are used to derive the monthly costs of these baskets. Poverty rates are measured by comparing EPH-data on household income to CPI-data on the costs of the two consumption baskets mentioned above (CBA/CBT).



household disposable income) and on a broader range of current transfers (including transfers paid by households, in addition to those received).

- Uses a reference period of the previous six months for non-agricultural labour income, and of previous year for other income flows (wages and non-wage income) from agriculture.
- Reports income (and consumption expenditure) data on an ‘adult-equivalent’ basis, rather than per capita as in EPH.

641. While ENGHo data are seldom used by INDEC to provide information on income distribution, the methodological differences described above imply that information from the two sources is not necessarily consistent. ENGHo data could also be used for assessing the distributive effects of consumption taxes, or for deriving indicators based on the joint distribution of household income and expenditure. To make the most of this information, steps should be taken to better integrate the two surveys, in particular by aligning income concepts and reporting periods.

### 3.6. Accuracy

642. Accuracy refers to the extent to which data correctly estimate or describe the quantities or characteristics they are designed to measure, and the procedures in place to ensure that source data are adequate, statistical techniques are sound, and outputs are adequately validated. The considerations on EPH sampling and non-sampling errors made in Chapter 10 also apply here. In general, confidence intervals and standard errors for key EPH-based statistics are computed by INDEC, but information on them is not included in the *Trabajo e Ingresos* series on income distribution.

643. As noted above, use of proxy respondents in EPH is problematic in the case of household income surveys, as the proxy, in most cases, lack the information required to report on the amounts earned by other household members. Use of proxy respondents in surveys collecting information on household income will hence reduce the accuracy of the information collected. To limit the use of proxy non-respondents, INDEC relies on repeated visits to interview all adult members of the household, which however increases the survey costs. At a minimum, income records based on proxy respondents should be clearly identified in the micro-data made available to EPH users.

### 3.7. Credibility

644. Credibility is the extent to which users can be confident when using the statistics. This is a function of both the governance and legal infrastructure regulating the production and release of official statistics, and of the accessibility of the statistics produced. The considerations made in Chapter 10 with reference to labour force statistics also apply here.

## 4. Overall assessment and recommendations

645. Based on this assessment, EPH data are not fully adequate to provide the data required by the OECD to monitor income inequality. The main limit of EPH for reporting on income inequality is that questions do not allow identifying all the components that are part of the OECD metric of household disposable income (i.e. income net of taxes by households and social security contributions paid by workers). Improvements should be considered in the following areas:

1. Extend EPH population coverage to include the large share of the resident population living in private households that currently falls beyond the scope of the survey (cf. Chapter 10).

2. Explore the possibility to use individuals' tax records when compiling EPH survey results, so as to improve coverage at the top end of the distribution.
3. Ask EPH respondents about the direct taxes and social security contributions paid by households, while recording other income streams on a pre-tax basis.
4. Change the questionnaire so as to allow the separate recording of the full range of current transfers received by households.
5. Consider the possibility of granting INDEC access to micro-level administrative data for statistical purposes, subject to the prior consent of survey participants.
6. Assess the extent of underreporting of capital income, and the feasibility of introducing a special module to measure the distribution of household wealth.
7. Limit the use of proxy respondents for EPH questions on income streams, and provide flags to identify records affected by proxy respondents.
8. Provide information on unit non-responses across local areas, and assess whether these are related to area characteristics.
9. Provide information on non-responses for different income items, and apply imputations consistently to correct for these.
10. Improve the coherence of income definitions used by EPH and ENGHO.

## CHAPTER 12. WELL-BEING STATISTICS

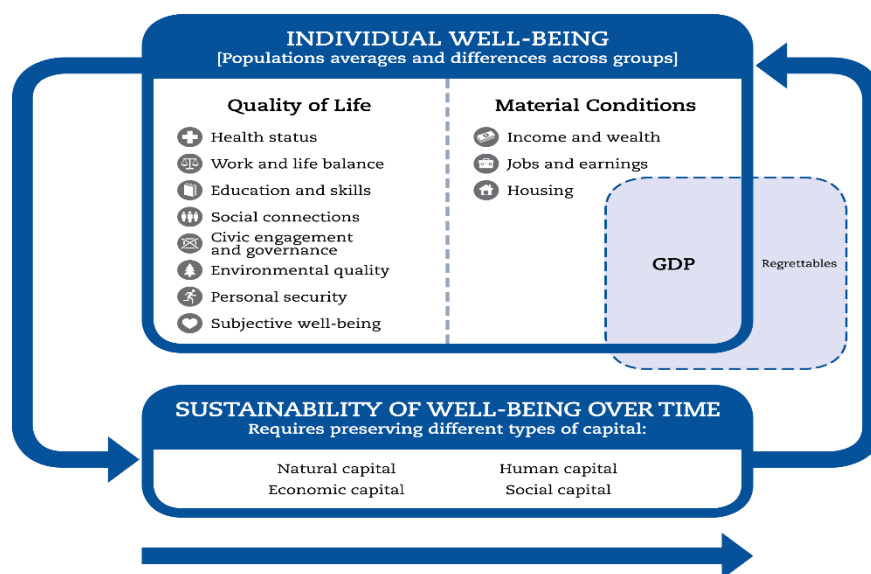
### 1. Presentation of OECD requirements

646. A broad set of well-being statistics is collected by the OECD for inclusion in its biennial report *How's Life?*. This report is based on a framework distinguishing between well-being “here and now” and resources for “tomorrow”, with more detailed domains and dimensions within each of the two parts of the framework shown in Figure 13.1. The OECD framework is operationalised through dashboards of indicators providing information on average well-being outcomes in each country; inequalities in the distribution of these outcomes (i.e. vertical inequalities, between people ranked according to the variable of interest; and horizontal inequalities, such as gender, age and education); and resources for future well-being (grouped under the four categories of economic capital, natural capital, human capital and social capital). These indicators (see Annex A for a complete list), which are selected in consultation with member countries’ statistical offices, are drawn from a variety of OECD databases (maintained by various Directorates) sourced from official data of each country<sup>151</sup> and based on a number of quality criteria (e.g. recurrent data collections, comparable definitions, disaggregation). A few non-official sources are used as “place holders” for those aspects lacking comparable metrics within official statistics.

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<sup>151</sup> These include SNA data on average household income and balance sheet, as well as flows and stocks of tangible and intangible economic capital; labour force survey data on long-term unemployment and usual hours worked; time use data on unpaid work and leisure time; administrative data on educational attainment, longevity, homicides and voter turnout; household income and wealth surveys data on income and wealth inequality; victimisation survey data on fears of crime; health interview surveys on perceived health status; paper and pencil assessments of the skills of students and adults (based on the OECD PIAAC and PISA surveys); geospatial data on air emissions; general social survey data on trust, subjective well-being, housing overcrowding, etc.

**Figure 13.1. The OECD well-being framework**



Source: OECD (2017).

647. Populating these dashboards with comparable national statistics requires countries to have in place measurement instruments providing information on household conditions across a variety of fields – collections that are repeated at regular intervals and based on internationally comparable definitions and breakdowns. Ideally, one would need not only detailed information in each domain, but also a capacity to link outcomes at the level of each person or household across domains (e.g. to understand how education affects health conditions, and vice-versa; or how the experience of poverty affects people’s evaluations of their life), i.e. *an integrated system of household statistics*.

## 2. A high-level evaluation of Argentinian statistics in this field

648. While the legal framework for Argentinian household statistics has the ambition to create an “integrated national system of household surveys, allowing comparability of information across sources” (as mentioned in administrative decision 305/2017), in practice it is still far from meeting this goal.

649. The backbone of Argentinian “integrated system of household statistics” is the permanent household survey (EPH) fielded continuously throughout the year. EPH does indeed cover a broad range of topics (e.g. labour force, income distribution, economic sustenance strategies of households) into a single instrument. But this integration comes at the cost of excluding some topics, and of collecting through the same instrument data requiring measurement at different intervals (e.g. high-frequency measures of labour force conditions, lower-frequency measures on households’ economic sustenance strategies or housing conditions). While providing an assessment of Argentinian statistics for OECD reporting on well-being and sustainability falls beyond the scope of this review, some considerations relevant to the field of household statistics are provided here.

650. Integration across statistical fields can be achieved in different ways, and no model is likely to be equally effective in all countries. Some of the approaches described below are likely to work best when implemented together.

651. A first avenue is “modularisation” of existing surveys. In the case of EPH, this would imply combining a continuous core module, limited to a more restricted range of domains than those currently

covered, with less frequent (e.g. annual) modules on different topics. While special EPH modules were conducted in the past, these modules covered a small range of areas and seem to have been conducted without a well-defined plan. Modularisation is a common feature of labour force surveys in most OECD countries, and include a combination of both recurrent modules on specific topics and *ad hoc* modules to respond to specific policy demands. Possible EPH modules could focus on household income, household wealth, education and training, informality, job quality, trade union activity, etc. Some of the modules could be repeated at specified intervals, while others could be one-off. In all cases, it would be important to define a calendar of releases.

652. A different path to achieve integration would be through a system of different household surveys, covering different topics, but integrated with each other. Beyond EPH, INDEC has conducted surveys in response to specific needs<sup>152</sup>, or in response to demands from various ministries, covering a range of areas.

- Data on *disabilities* were collected in the 2001 census, in a 2002/03 survey and in the 2010 census. Following Argentina's adherence to the UN Convention of the Rights of People with Disabilities in 2006, INDEC launched a new survey in 2018 based on the recommendations of the UN Washington Group on Disability Statistics, to quantify the prevalence and characteristics of people with disabilities.
- Following an agreement with the Ministry of Security, data on personal security were collected through a victimisation survey (*Encuesta nacional de Victimización*, ENV) conducted in 2017, with first results disseminated in February 2018.
- Data on *time use* were collected through a survey focusing on unpaid work (*Encuesta sobre Trabajo No Remunerado y Uso del Tiempo*) run in 2013 as a special module of EAHU.<sup>153</sup>
- In the *health* field, INDEC conducted a survey on health risks in 2018 (*Encuesta Nacional de Factores de Riesgo*, ENFR), in collaboration with the Ministry of Health; a survey on consumption of drugs, alcohol and tobacco in 2004/05; and a survey on women's reproductive health (*Encuesta Nacional sobre Salud Sexual y Reproductiva*, ENSSyR) in 2013.<sup>154</sup>

653. In all cases, however, these surveys seem to have been undertaken ad hoc, rather than based on a well-established plan. Several of the areas included in the OECD well-being framework (e.g. subjective well-being, social connections, governance) have never been addressed by INDEC. Results are also not integrated with EPH, as individual survey records cannot be linked across surveys. Achieving this goal would require some type of statistical matching across surveys, a task that would be made easier by developing an information system whereby detailed information in each sphere could be linked to that in others through a "spine" gathering high-level information for the same person across different domains.

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<sup>152</sup> Sectoral ministries can also conduct surveys on specific topics without relying on INDEC or its sampling frames. An example is the survey on social protection conducted in 2009, 2011 and 2015 by the Ministry of Labour (*Encuesta de Protección y Seguridad Social*, ENAPROSS). While this survey provides valuable information in a data-scarce environment, it does not necessarily rest on international conventions, and some of the information produced may contradict that produced by INDEC through its own surveys, which would run against the goal of creating an "integrated system of national household surveys".

<sup>153</sup> Because of its methodological features, however, this survey differs from the time use surveys that exist in other countries.

<sup>154</sup> No comprehensive health interview survey, covering the entire population and a broad range of health conditions, currently exists.

654. In early 2019, INDEC started reviewing its framework for social statistics, using the OECD well-being framework as point of departure, and launching several initiatives to support this process. First, INDEC Directorate of Sectoral Statistics, which coordinates this process, carried out a review of existing surveys and other data sources within national statistics, to identify those well-being metrics that could be sourced from them. Second, in June 2019, meetings with Provincial Offices of Statistics provided an opportunity to discuss the status of the well-being framework, to assess the availability and feasibility of computing national indicators, and to share the experiences of those Provincial Offices (i.e. Córdoba) that had taken steps to implement the OECD Regional Well-being initiative. Lastly, since June 2019 INDEC has been working to develop an Integrated System of Social Statistics gathering information from census, surveys and registries through common conceptual, methodological, and analytical frameworks, and which could be used to develop the indicators used by the OECD to populate its well-being framework. To support its engagement in this field, INDEC is also participating in regional initiatives<sup>155</sup> and strengthening bilateral cooperation with other NSOs in Latin America with experience in this field (e.g. INEGI Mexico).

### 3. Overall assessment and recommendations

655. Based on this summary assessment, the Argentinian statistical system seems far from being able to provide the information needed to inform OECD well-being analysis. Improvements should be considered in the following areas:

1. Collect data on a range of aspects that feature in the OECD dashboard of well-being indicators and that are not currently collected through existing INDEC instruments.
2. Rely on modules of EPH dealing with specific topics (such as household income, household wealth, education and training, informality, job quality, trade union activity, etc.) conducted based on an established calendar, while also reducing the size of the core EPH questionnaire.
3. Establish an integrated system of household statistics on various fields (e.g. victimisation, health interviews, time-use surveys) and consider the feasibility of integrating results across surveys and with administrative records.
4. Improve synergies with other statistical producers, either in sectoral ministries or in academia, to define quality standards and forms of cooperation.

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<sup>155</sup> In April 2019, INDEC's Director General participated in the meeting of the regional network of experts in policy metrics for well-being and sustainable and inclusive development in Latin America and the Caribbean, held in Santiago (Chile), as part of a CEPAL-OECD-EU project aimed at identifying a small set of well-being metrics to support public policies. On 23-24 October 2019, INDEC will participate in the "International Conference on the Use of Well-Being and Sustainable Development Indicators in Public Policies of Latin America and the Caribbean", which will be held in Bogotá (Colombia) to present the progress made in developing and implementing its well-being initiative.

## ANNEX A

### Annex Table A.1. Well-being indicators included in How's Life? 2017

#### Panel A. Current well-being, averages

Quality of life	Material conditions
<b>Work-life balance</b>	<b>Income and wealth</b>
Working hours (share of employees usually working 50 hours or more per week)	Household net adjusted disposable income per capita (USD at current PPP rates)
Time devoted to leisure and personal care (hours per day, people in full-time employment)	Household net wealth per household (USD at current PPP rates)
<b>Health status</b>	<b>Jobs and earnings</b>
Life expectancy at birth (number of years that a new born can expect to live)	Employment rate (population aged 15-64)
Perceived health status (share of adults reporting "good" or "very good" health)	Average annual gross earnings per full-time employee (USD at PPP rates)
<b>Education and skills</b>	Labour market insecurity due to unemployment (average expected earnings loss due to unemployment as a share of previous earnings)
Educational attainment (share of people 26-64 having attained at least upper secondary education)	Incidence of job strain (share of employees experiencing a number of job demands exceeding the number of job resources)
Competencies of the adult population aged 16-65 (mean proficiency in literacy and numeracy)	Long-term unemployment rate (share of the labour force unemployed for one year or more)
Cognitive skills of 15-year-old students (mean score for reading, mathematics and science)	<b>Housing</b>
<b>Social connections</b>	Average number of rooms per person (excluding bathroom, toilet, kitchenette, utility rooms, garages)
Social support (share of people who report that they have friends or relatives whom they can count on in times of trouble)	Housing affordability (share of household gross adjusted disposable income spent on housing rent and maintenance)
<b>Civic engagement and governance</b>	
Voter turnout (percentage of votes cast among the population registered to vote)	
Having a say in what the government does (share of people aged 16-65 who feel they have a say in what the government does)	
<b>Environmental quality</b>	
Water quality (Percentage of satisfied people in the overall population)	
Air quality (exposure to outdoor air pollution by fine particulate matter, population-weighted mean PM2.5 concentrations, micrograms per cubic metre, 3-year moving average)	
<b>Personal security</b>	
Homicides (age-standardised prevalence of deaths due to assault)	
Feelings of safety (share of people feeling safe when walking alone at night in the city or area where they live)	
<b>Subjective well-being</b>	
Life satisfaction (mean values on an 0-10-point scale)	

## Panel B. Current well-being, inequalities

Vertical inequalities	Horizontal inequalities (by age, gender and educational level)	Deprivations
<b>Income and wealth</b>		
S80/S20 household disposable income ratio	Gaps in average household disposable income	Relative income poverty
Share of household net wealth of the top 10%	Gaps in average household net wealth	Asset-based poverty
<b>Jobs and earnings</b>		
P90/P10 gross earnings ratio	Gaps in average hourly earnings	Risk of low pay
	Gaps in employment rate	Unemployment rate
	Gaps in unemployment rate	
	Gaps in risk of low pay	
<b>Housing conditions</b>		
		Share of people spending more than 40% of disposable income on housing
		Share of households living in overcrowded dwellings
<b>Health status</b>		
Standard deviation of age at death	Gaps in self-reported health status	Share of people rating their health status as fair, bad, or very bad
	Difference in life expectancy (years) at age 25 by education level, for men and women	
<b>Work-life balance</b>		
S80/S20 hours worked ratio	Gaps in average time devoted to personal care and leisure	Share of employees usually working 50 hours or more per week
S80/S20 ratio in time devoted to personal care and leisure	Gaps in incidence of long working hours	
<b>Education and skills</b>		
P90/P10 PISA scores ratio	Gaps in share of adults aged 25-64 with upper secondary or tertiary education	Share of adults aged 25-64 with below upper secondary education
P90/P10 PIAAC scores ratio	Gaps in average PISA scores across all fields	Share of 15-year-old students who score at or below Level 2 in science, reading and mathematics (PISA)
	Gaps in average PISA scores across all fields by the parents' education level	Share of adults who score at or below Level 1 in both literacy and numeracy (PIAAC)
	Gaps in average PIAAC scores across both fields	
<b>Social connections</b>		



S80/S20 ratio in time spent on social activities (among participants)	Gaps in average time spent on social activities	Share of people who report not having relatives or friends to count on
	Gaps in quality of network support	
<b>Civic engagement and governance</b>		
S80/S20 political efficacy ratio	Gaps in political efficacy	Share of people who consider having no influence on the national government
	Gaps in self-reported voter turnout	Share of people who have not cast a vote in national elections
<b>Environmental quality</b>		
	Gaps in satisfaction with the quality of the water in the local area	Share of people exposed to more than 15 micrograms/m <sup>3</sup> of PM <sub>2.5</sub>
		Share of people reporting not to be satisfied with the quality of the water in their local area
<b>Personal security</b>		
	Gaps in deaths by assault per 100 000 population	Deaths by assault per 100 000 population
	Gaps in feelings of security when walking alone at night	Share of people reporting not to feel safe when walking alone at night
<b>Subjective well-being</b>		
S80/S20 life satisfaction ratio	Gaps in average life satisfaction	Share of people reporting low life satisfaction
		Share of people reporting negative affect balance

## Panel C. Resources for future well-being

Stocks	Flows	Risks
<b>Natural capital</b>		
	Greenhouse gas emissions from domestic production (CO <sub>2</sub> equivalent, tonnes per capita)	
	Carbon dioxide emissions embodied in domestic final demand (tonnes per capita)	
Population exposure to outdoor air pollution by fine particulate matter (Population-weighted mean PM <sub>2.5</sub> concentrations, micrograms per cubic metre, 3-year moving average)*		
Forest area in square kilometres, per thousand people		
Renewable freshwater resources (1 000m <sup>3</sup> per capita, long-term annual average)		
Freshwater abstractions (gross abstraction from groundwater or surface water bodies, cubic metres, per capita)		
Threatened species (share of all known species, separately for birds, mammal and vascular plants)		
<b>Human capital</b>		
	Share of people 25-24 who have attained at least upper secondary education*	
	Educational expectancy (average number of years in education that a child aged 5 can expect to undertake before age 39)	
Cognitive skills of 15-year-old students (mean score for reading, mathematics and science)*		
Adult skills (mean proficiency in literacy and numeracy of the population, aged 16-65)*		
	Long-term unemployment (share of the labour force unemployed for 1 year or more)*	
Life expectancy at birth (number of years that a new born can expect to live)*		
		Prevalence of smoking (share of people aged 15 and over who report smoking every day)
		Prevalence of obesity (share of the population aged 15 and older)
<b>Social capital</b>		
Trust in others (mean score, on a scale from 0 to 10)		

Trust in the police (mean score, on a scale from 0 to 10)		
Trust in the national government (mean score, on a scale from 0 to 10)		
Voter turnout (percentage of votes cast among the population registered to vote)*		
Government stakeholder engagement when developing primary laws and subordinate regulations		
	Volunteering (share of the working-age population who declared having volunteered through an organisation at least once a month, over the preceding year)	
<b>Economic capital</b>		
Produced fixed assets (USD per capita, at 2010 PPPs)		
	Gross fixed capital formation (annual growth rates)	
Financial net worth of the total economy (USD per capita, at current PPPs)		
Intellectual property assets (USD per capita, at 2010 PPPs)		
	Investment in R&D (percentage of GDP)	
		Household debt (percentage of net household disposable income)
Household net wealth (USD at current PPPs, per household)*		
Financial net worth of general government (percentage of GDP)		
		Leverage of the banking sector (ratio of selected assets to banks' own equity)*

Note: \* Denotes indicators that are also considered headline measures of current well-being.

Source: OECD (2017a), *How's Life? 2017: Measuring Well-being*, OECD Publishing, Paris, [https://doi.org/10.1787/how\\_life-2017-en](https://doi.org/10.1787/how_life-2017-en).