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**Revision of the CPC and Relationship to EBOPS**

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## **A. Revision of the CPC and relationship to EBOPS**

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### **1. The revision process**

The United Nations Statistical Commission in 1998 approved the plans for forthcoming revisions of the International Standard Industrial Classification of All Economic Activities (ISIC) and the Central Product Classification (CPC), including an update with limited changes for 2002 and a regular revision for 2007. The preparations for the 2007 revision of ISIC and CPC started in 2001 with a conceptual questionnaire, which was followed in 2003 by a more questionnaire addressing more detailed structural issues. Both questionnaires were sent to all national statistical offices and a number of international agencies. Work in the Expert Group on International Economic and Social Classifications and its Technical Subgroup, based on the responses to these questionnaires have led to a complete structure draft for ISIC rev.4, which has been distributed earlier in 2004.

Work in other groups and projects has also yielded a number of proposals for the revised CPC, such as in the area of Information and Communications Technology (ICT), waste management products, health services etc. Some of these have been formally submitted as proposals for the CPC; others will form the background for discussions on improving the CPC in a number of areas.

A separate questionnaire for the CPC revision has been circulated earlier this year, detailing the proposals existing at that time, but also seeking additional proposals from countries and organizations. The questionnaire and related papers, for instance covering the already existing proposals, are available on the UNSD Classifications website (<http://unstats.un.org/unsd/cr/cpc-2.asp>).

The replies to this questionnaire will be reviewed by the Technical Subgroup at its meeting in October 2004. The Technical Subgroup will, based on these findings, prepare a draft version of the revised CPC, which will then be distributed to all countries. This will take place between December 2003 and February 2004. The exact timing will depend on the amount and nature of the proposals received.

Comments on this draft will again be reviewed for potential changes to the draft, which will then be submitted to the Expert Group for approval. The final draft classification is expected to be submitted to the UN Statistical Commission in the spring of 2006.

## **2. Relationship of CPC and EBOPS**

An important aspect of the revision process is the consideration of links to other classifications covering the same subject matter area. For instance in the goods part of the CPC, great care has been taken to base definitions of CPC subclasses on complete subheadings of the Harmonized System (HS). This allows for a maximum of comparability between data compiled on a CPC basis (e.g. for production, prices etc.) and data compiled on a HS basis (trade). There are only very few exceptions to this general rule, which had to be applied for specific purposes.

For the services part of the CPC, a strong link between CPC and the Extended Balance of Payments Services Classification (EBOPS) has been identified as a major goal for the CPC revision process. Reciprocally, this should also be a goal of the EBOPS revision.

It is clear that the situation in this case is different from that for HS and CPC. Since in its nature the CPC is more detailed than EBOPS, it seems reasonable to expect that the EBOPS categories could be defined in a way that they represent an aggregation of complete CPC categories. This could be done for CPC subclasses (5-digit level), but it would be easier to describe the link and use existing data, if this link could operate at a higher level of aggregation, such as the CPC group level (3-digit level) or class level (4-digit level).

A comparison shows, that in many cases a link between EBOPS items and aggregations of CPC groups or classes is possible (mostly groups). An aggregated correspondence between EBOPS and CPC ver.1.1 is shown in Annex I. This correspondence is based on the detailed correspondence between EBOPS and CPC version 1.0, as shown in the *Manual on Statistics of International Trade in Services*. Changes between CPC Ver.1.0 and Ver.1.1 have been applied to this and the correspondence is shown at a more aggregated level, which indicates the level of comparison between the two classifications.

At this point in time, there seems to be no strong request for introducing more detail in EBOPS, so that the correspondence shown in Annex I can be used as a basis for further discussion. It is noted, however, that some proposals for additional detail to the BOP classification exist (see *IMF Committee on Balance of Payments Statistics, Balance of Payments Technical Expert Group (BOPTEG): Issues paper (BOPTEG) #17 – Classification of services*). Since these do not exceed the level of detail in EBOPS, they should have no impact on the correspondence discussion.

### **a. General differences between EBOPS and CPC**

There are some differences between CPC and EBOPS that do not allow a complete and clean link between the two classifications or at least require an explanation.

The **scope** of EBOPS covers only transactions between residents of different economies, while there is no such distinction reflected in the CPC. Therefore the comparison between EBOPS and CPC has to be based on the type of services performed, but not reflect scope issues of the frameworks in which the classifications are being used. For that reason, a certain type of service will not be marked as “partially linked” to the same type of service in the CPC, based on the more limited scope of EBOPS.

**Repair services** are not recognized as such in the BOP services classification<sup>1</sup>. Instead, the value of some repair services performed is recoded under the goods part of the classification. This results in the fact that repair services in the CPC cannot be linked to EBOPS, typically resulting in partial links to the categories for “maintenance and repair” in CPC. It is understood, however, that this issue is under consideration in the BOP revision process (see BOPTTEG issues paper #17 referenced above). Should the future revision of the BOP recognize repair under services, they should preferably be grouped with maintenance services (as in CPC). This would also be a break from the treatment of (some of) the maintenance services in EBOPS now, the advantage of which is described below in the section on transport.

**Goods for processing** are currently recorded in the goods part of the BOP. As the *Outcome Paper (BOPTTEG) #17* suggests, this could be reclassified as a service to maintain consistency with the treatment of repair services. If this proposal is accepted, the link to CPC would essentially cover CPC division 88 (Manufacturing services on physical inputs owned by others). This CPC division is now linked to EBOPS 283 for the on-site processing. It could be recommended in this case to have not only all processing services of goods combined (on-site and others), but also to reflect them in a separate new component, which would be equivalent to CPC 88.

**Merchandising** is a concept that cannot be fully described in terms of CPC and this component has been excluded from the original correspondence in the Manual. The services covered here are however a subset of the Wholesale services in CPC with additional scope restrictions.

EBOPS component 236 (**Travel**) cannot be fully described in terms of CPC, since travelers may consume a wide range of goods and services. This component has therefore not been considered in the correspondence. However, the memorandum item 957

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<sup>1</sup> BPM5 agrees in concept with the SNA distinction between repairs performed on investment goods and other goods (the latter are considered services in the SNA). However, based on practical considerations, the BPM5 treats all repairs under goods. Excluded are construction repairs (under construction services), computer repair (recorded under computer and information services) and maintenance performed in ports and airports on transportation equipment (under other transport services).

(Expenditure on accommodation and food and beverage serving services) is described in terms of CPC and included in the correspondence.

The EBOPS component 291 (**Government services** n.i.e.) and its subcomponent 294 (Other Government services n.i.e) differ from the concept of government services in CPC in the sense that they also include services like education or health, when performed by public units. Such a producer-based distinction between public and private entities carrying out a service does not exist in the CPC. This results therefore in partial links between the two classifications. This position has been reflected in the correspondence table shown in the *Manual* and in Annex I. It should be reviewed if this actually reflects the BPM5 position, as the text of BPM5 itself does not seem to make that statement. Paragraph 86 of the BOP manual defines general government, but this should not be the basis for the definition of government services. The proposal in para. 9.59 of the Annotated outline to classify particular transactions to the appropriate goods and services components would allocate all education services to EBOPS 895 and all health services to EBOPS 896. This would follow the CPC treatment and substantially improve the link.

#### **b. Consideration of EBOPS and CPC to improve the link between them**

The correspondence at a medium aggregated level between EBOPS and CPC is shown in Annex 1. Having these links agreed at the 3-digit level of the CPC would be significant improvement of the relationship of these classifications. This will require consideration of a number of possible changes or adjustments, drawn from the existing link, as listed below.

##### *206-232 Transport*

The transport components of EBOPS include three elements that make linking to CPC difficult: maintenance of transport equipment, support services to transport and mixed mode transport services.

Maintenance of transport equipment can be identified at the subclass (5-digit) level for some groupings of equipment. This is still not sufficient to link cleanly to all the different EBOPS components and this set of partial links is actually not shown in the correspondence in Annex 1. There are two potential ways to improve this situation: (a) introduce more detail for maintenance of transport equipment in the CPC or (b) remove maintenance services from the transport component in EBOPS. Option (a) could, though with some difficulty, be introduced in CPC, but the link to EBOPS would only work at the 5-digit level, which is far from the envisaged goal of 3-digit links. Option (b) could be introduced in EBOPS, especially if repair services are recognized. In this case repair and maintenance services could be grouped together in a new EBOPS component, allowing clean 3-digit links to CPC.

Support services in CPC 676 are currently not sufficiently detailed to reflect the breakdown needed for EBOPS components. This should be considered for the CPC revision. The link for these service activities could be enacted at the 4-digit level instead of the 3-digit level, depending outcome of the CPC discussions. This additional detail

should reflect e.g. splits between support for sea transport vs. inland waterway transport and between support for air vs. space transport.

Detailed EBOPS components (e.g. 206 vs. 207) can still only be linked at the 4-digit level.

Mixed mode transport (CPC 641) cannot be linked to EBOPS in the current form. This CPC group covers rail and road transport elements, but a split is not possible due to the nature of this service. This needs to be further discussed.

## **II. 231 PIPELINE TRANSPORT AND ELECTRICITY TRANSMISSION**

In CPC ver.1.1, the transmission of electricity has been identified as a separate service and linking is possible at the 5-digit level. CPC groups electricity transmission with electricity distribution, while EBOPS groups it with pipeline transport. Similar treatment in both classifications would significantly improve the quality of the link (3-digit level). Can the basis for both treatments be compared and consensus be reached?

## **III. 246 POSTAL AND COURIER SERVICES**

The mismatch between both classifications seems to be created only by the different treatment of “messenger services by bicycle couriers”. If this is the only problem, this item should be moved to courier services in CPC.

*254-256 Life insurance and pension funding, freight insurance, other direct insurance*

The sum of these EBOPS components can be linked to CPC 713. Individual components can still be linked at the 5-digit CPC level (no easy improvement possible without major restructuring of CPC). There is however also an element of CPC715 linked to these components, namely the portfolio management related to life insurance etc. I would propose to classify these with other financial services under EBOPS 260.

## **IV. 263 COMPUTER SERVICES**

This currently links to CPC at the 4-digit level. The CPC revision should consider a separate group for the classes involved here. The treatment of data processing services (8596) should also be reconsidered in the CPC revision and possibly grouped with the services above. The link to computer repair (8713) will only work at the 4-digit level, but will, like the above, be considered in light of the ICT services proposal for CPC.

This EBOPS component also includes computer training. While the CPC does not detail different types of training in CPC 929 (and this should be reconsidered for the CPC revision), the better solution in this case may be to move computer training under component 895 (education) in EBOPS.

*277, 285 – Business and management consultancy, services between affiliated enterprises*

These two EBOPS components invoke a split of CPC 8319 (Other management services). This should be clarified and viewed also light of the proposal in BOPTEG Issues paper #17 regarding EBOPS 285. Elimination of this component seems reasonable.

#### **V. 278 ADVERTISING, MARKET RESEARCH AND OPINION POLLING**

CPC 85970 (Trade fair and exhibition organization services) is linked to this EBOPS component. This should be reviewed, as this is not clearly an advertising service. Propose moving this item under EBOPS 284 (Other business services).

#### **VI. 280 AGRICULTURAL, ENGINEERING AND OTHER TECHNICAL SERVICES**

Propose to link CPC 83139 (Other scientific and technical consulting services), which is currently linked to EBOPS 284 to this EBOPS component. It seems more appropriate here, based on the services included, and would in combination with the environmental consulting services (CPC 83131) allow a link at the 4-digit level.

#### **VII. 284 OTHER BUSINESS SERVICES**

This is a 'catch-all' category, which by design is heterogeneous. Are subdivisions of this component in EBOPS possible and useful?

Items to consider in connection with this component are (most are mentioned with other components already):

- consider moving CPC 83139 to EBOPS 280
- treatment of electricity transmission (split in CPC, placement in EBOPS)
- remove EBOPS link for packaging of coins (this has been assumed in the correspondence already)
- treatment of data processing in CPC (8596)
- placement of trade fair organization (CPC 8597) in EBOPS 284
- treatment of maintenance of household appliances in EBOPS (CPC 87151)
- general treatment of repair

Following proposal shown with other EBOPS components will improve the link between CPC and EBOPS.

#### *288 Audio-visual and related services,*

This EBOPS component includes parts of CPC 96310 (Services of performing artists) and 96320 (Services of authors, composers, sculptors and other artists, except performing artists). The remaining parts of the CPC subclasses re linked to EBOPS 897 (Other personal, cultural and recreational services). The definitions or relationship between these elements needs to be clarified.

As EBOPS 288 includes the rental of videotapes, the link to CPC for this component and the EBOPS 272 can only work at the 4-digit level (CPC revision may want to consider this).

*292-294 Government services*

The main problem with the link to CPC lies in the fact that EBOPS mixes product definition and producer types to define this component. This results in the inclusion of education services and health services by public institutions. This cannot be reflected in CPC. Can EBOPS / BOP reconsider this?

A second problem arises from the split of CPC 990 (Services provided by extraterritorial organizations and bodies) between the three EBOPS components. CPC makes no distinction according to the unit providing these services. It should be reviewed if these links are correct in the first place. If yes, at least the component for all government services n.i.e. (EBOPS 291) would link to all of CPC 990.

*896, 897 Education services, health services*

See comment under Government services. In addition the treatment of computer services should be reviewed (see also 263).

*897 Other personal, cultural and recreational services*

This component includes catering services (CPC 6323) and part of other food serving services (CPC 6329) – the other part is linked to Memorandum item 957. The definitions for EBOPS should be reviewed in this case and the links evaluated.

In addition, the link of CPC 9631 and 9632 to EBOPS 897 and 288 should be reviewed (see above).

## **VIII. OTHER**

Not covered in the correspondence, i.e. not covered under EBOPS are the following services (or service clusters) in CPC: retail sale, trade services and sales of land or buildings and associated land (whether on a fee or contract basis or not) and the repair of household appliances and household goods.

### **3. Points for discussion**

The group may wish to comment on the proposals for individual changes to either EBOPS or the CPC as shown under 2.b above.

EBOPS	EBOPS Title	EBOPS	CPC Ver. 1.1	Comments
206+227	Sea transport + Inland waterway transport	207+208+209+228+229+230	651+652+676	all except maintenance; support services in CPC 676 are not split between sea and inland water, otherwise the split would work (i. e. 207+208+209=651, 228+229+230=652); links still work at CPC 4-digit level, except support services and maintenance
211	Air transport, passenger	211	661+664*	rental of aircraft is not split according to passenger/freight in CPC
212	Air transport, freight	212	662+664*	rental of aircraft is not split according to passenger/freight in CPC
213	Air transport, other	213	677*	except maintenance (CPC 87149*); support services for air and space transport are not split in CPC
218	Space transport	218	663+677*	support services for air and space transport are not split in CPC
219	Rail transport	220+221+222	642+674	except maintenance; EBOPS split possible at 4-digit CPC (except for maintenance); problems linking CPC 641 (mixed mode transport)
224+225	Road transport, passenger and freight	224+225	643*	except for a portion of CPC64340 (other miscellaneous delivery services), which are linked to Postal and courier in EBOPS (246); except for this delivery portion and maintenance, links of EBOPS splits to CPC at 4-digit are possible; = 6431+6432; problems linking CPC 641 (mixed mode transport)
226	Road transport, other	226	675	except maintenance
231	Pipeline transport and electricity transmission	231	644+69111	why is electricity transmission and pipeline transport combined in EBOPS? CPC groups it with electricity distribution
232	Other supporting and auxiliary transport services	232	671+672+673+679	except maintenance
246	Postal and courier services	246	681+642*	in CPC courier services are part of 681; what 'other miscellaneous delivery services' (CPC64340) are included in EBOPS and which ones are not? - this should be reevaluated (also for CPC)
247	Telecommunications services	247	841+842	
249	Construction services	249	54 (=541,548)	
254+255+256	Life insurance and pension funding, freight insurance, other direct insurance	254+255+256	713+715*	only part of portfolio management of CPC 715 is included here; except for portfolio management, split in CPC between the EBOPS components is possible at the 5-digit level
257	Reinsurance	257	714	
258	Insurance services, auxiliary services	258	716	
260	Financial services	260	711+712+715*	part of portfolio management (CPC 71531) is linked to life insurance and other direct insurance (254, 256)
263	Computer services	263	8314+8315+8316+8596+8713+92900*	this links only at the 4-digit level; the part of 92900 refers to computer training (CPC does not detail education and training services at all - this should be considered for CPC); also for the CPC revision, the grouping of 8314+8315+8316 in a separate group (computer related) should be considered; treatment of 8596 (data processing services) should be discussed in EBOPS and CPC

EBOPS	EBOPS Title	EBOPS	CPC Ver.1.1	Comments
266	Royalties and license fees	266	733	
270	Merchandising	270	611*+612*(?)	(could be part of wholesale)
271	Other trade-related services	271	612	
272	Operational leasing services	272	731+732*	except 73220 (renting and leasing of video tape), which is linked to 288 (audiovisual services)
275	Legal services	275	821	
276	Accounting, auditing, book-keeping and tax consulting services	276	822+823+824	
277	Business and management consultancy and public relations services	277	8311+8312+83190*	83190 is split between EBOPS 277 and 285 - this should be reviewed and clarified
278	Advertising, market research, and public opinion polling	278	836+837+85970	Review if CPC 85970 (Trade fair and exhibition organization activities) should really be here (maybe in 284?)
279	Research and development	279	811+812+813	
280	Architectural, engineering, and other technical services	280	83131+832+833+835+8399	CPC 83139 (Other scientific and technical consulting services) is linked to EBOPS 284 - it would be better placed here (and allow for a link at the 4-digit level)
282	Waste treatment and depollution	282	941+942+943+949+894	
283	Agricultural, mining and on-site processing services, other	283	861+862+881+882+892+893+9322+9329	CPC 4-digit necessary to exclude veterinary services for pets
284	Other business services	284	678+691*+692+7211+7221+7224+83139+834+838+8391+851+852+853+854+8591+8592+8593+8594+8595+8599+863+8711*+8712*+8715*+8729*+873+891	This is a 'catch-all' category, which by design is heterogeneous. Are subdivisions possible/useful? Items to consider: - consider moving CPC 83139 to EBOPS 280 - treatment of electricity transmission in EBOPS and CPC (CPC 69111) - remove EBOPS link for packaging of coins - treatment of data processing in CPC (8596) - placement of trade fair organization (CPC 8597) in EBOPS 284 - treatment of maintenance of household appliances in EBOPS (CPC 87151) - general treatment of repair - new class for real estate appraisal (CPC 7224) linked to this EBOPS item
285	Services between affiliated enterprises n.i.e.	285	83190*	see Manual Chapter 3 for coverage problems
288	Audio-visual and related services	288	7322+961+963*	CPC 96310 and 96320 are also linked to EBOPS 897 - should be reviewed
292	Embassies and consulates	292	990*	CPC 990 does not separate types of extraterritorial bodies (is this the proper link? - review)
293	Military units and agencies	293	990*	CPC 990 does not separate types of extraterritorial bodies (is this the proper link? - review)

EBOPS	EBOPS Title	EBOPS	CPC Ver.1.1	Comments
294	Other government services n.i.e.	294	91+92*+931*+990*	This EBOPS item covers public hospitals and public education; CPC does not split this - review if this is the right approach for EBOPS?; CPC 990 does not separate types of extraterritorial bodies (is this the proper link? - review)
890	Other information provision services	890	843	
895	Education services	895	92*	private education only (no split in CPC); excludes computer training (see note for 263)
896	Health services	896	931*	private health services only (no split in CPC)
897	Other personal, cultural, and recreational services	897	6323+6329*+845+9321+933+95+962+963*+964+965+966+969+97+98	includes catering services and part of other food serving services (as part of CPC632) - should be reviewed; CPC 96310 and 96320 are also linked to EBOPS 288 - should be reviewed
889	News agency services	899	844	
957	Memorandum item: Expenditure on accommodation and restaurant services	957	631+6321+6322+6329*+633	does not include catering (see 897); part of other food serving services is included here - review the relationship to EBOPS 897
N/A		N/A		(parts of wholesale); retail sale; trade services and sales of land or buildings and associated land, whether on a fee basis or not; repair of household appliances and household goods