

## **Program and Budget Committee**

**Twenty-Fourth Session**  
**Geneva, September 14 to 18, 2015**

### **UPDATE ON PROPOSAL OF PATENT COOPERATION TREATY (PCT) WORKING GROUP CONCERNING HEDGING STRATEGY FOR PCT INCOME**

*Document prepared by the Secretariat*

1. At the twenty-third session of the Program and Budget Committee (PBC), held from July 13 to 17, 2015, the Committee requested the Secretariat to provide an update at its 24<sup>th</sup> session on the progress made in respect of the implementation of the Hedging Strategy for PCT Income (WO/PBC/23/REF/HEDGING STRATEGY FOR PCT INCOME), following agreement by the Patent Cooperation Treaty (PCT) Working Group at its May 2015 session on proposed modifications to the “Directives of the Assembly Relating to the Establishment of Equivalent Amounts of Certain Fees”, with a view to their submission to the PCT Assembly for consideration and adoption at its October 2015 session (see document PCT/A/47/5). If adopted, those modifications would enable the International Bureau to commence hedging of international filing fees as far as the risk resulting from transactions in euro, Japanese yen and United States dollar is concerned. This update is in response to the request made by the PBC.

#### **BACKGROUND INFORMATION ON THE PROPOSAL TO IMPLEMENT A HEDGING STRATEGY FOR PCT INCOME**

2. In the fourth quarter of 2013, WIPO instigated a treasury review project, the key objective of which was to undertake an independent and objective assessment of WIPO’s current treasury management functions, policies and procedures, including a review of WIPO’s treasury exposures. This review covered foreign exchange exposure at WIPO, notably that which arises with regard to PCT fee income, and produced a recommendation for a new foreign exchange risk management strategy, to be based on hedging.

3. Circular C.PCT 1440 (*PCT Fee Income: Possible Measures To Reduce Exposure to Movements in Currency Exchange Rates*) contains an explanation of the proposal to hedge, together with details of various other measures proposed as ways to reduce the exposure of PCT fee income to movements in currency exchange rates. This Circular was sent in

January 2015 to all PCT stakeholders. Responding to the feedback received with regard to the Circular, document PCT/WG/8/15, elaborating on a possible way forward with regard to the various possible measures to reduce the risk of exposure of PCT fee income which had been set out in the Circular, was submitted to the PCT Working Group at its eighth session in May 2015.

4. During the eighth session of the PCT Working Group, all of the delegations which took the floor welcomed the proposal to commence the hedging of PCT international filing fees as far as the risk resulting from transactions denominated in euro (EUR), Japanese yen (JPY) and United States dollar (USD) was concerned. Details of the discussion are set out in paragraphs 21 to 36 of the Summary by the Chair, document PCT/WG/8/25. The principal recommendations by the Working Group, to be submitted to the Assembly at its October 2015 session for decision, were as follows:

- (a) to commence hedging of PCT international filing fees for transactions in euro, Japanese yen and United States dollar with effect from January 1, 2016;
- (b) to modify the current equivalent amount process for certain PCT fees with a view to fixing new equivalent amounts of PCT international filing fees only once per year, to remain unchanged for a period of 12 months, and to modify accordingly the Directives of the PCT Assembly Relating to the Establishment of Equivalent Amounts of certain PCT Fees; and
- (c) to carry out a “proof of concept” simulation for the hedging of search fees with a view to discussing a detailed proposal by the Secretariat at the next session of the Working Group in 2016.

#### **ACTION TAKEN BY SECRETARIAT TO DATE**

5. Following the decision by the PCT Working Group in May 2015, the Secretariat began consultations with its principal banking partners in order to put in place the credit lines that are required for the implementation of a hedging strategy of this type. These consultations have made progress and the necessary credit lines are in the process of being established at several banks. In addition, discussions have been held with other UN agencies which hedge currency risk in order to discover how their hedging programs have been implemented and to obtain useful comparative information.

6. The Secretariat has also engaged consultants to examine the areas outlined below:

- (a) the impact on WIPO’s net results for 2013, 2014 and 2015 (through to August) had the hedging strategy been in effect during these periods;
- (b) the projected cash flow requirements for hedging JPY, USD and EUR in 2016;
- (c) the additional risks to the Organization inherent in the implementation of the hedging strategy;
- (d) the accounting policies and procedures that would have to be implemented in AIMS in order to maintain WIPO’s full compliance with International Public Sector Accounting Standards (IPSAS).

#### **ISSUES**

7. The analysis performed by the consultants has identified the following issues concerning the implementation of hedging as a solution to the exposure to currency exchange rate risk related to PCT fee income.

## FORECAST ACCURACY

8. WIPO's strategy would be to hedge a highly probable forecast of the revenue to be received in each of the three currencies concerned. The forecasts are prepared for each biennium by the Data Development Section of the Economics and Statistics Division and updated annually, including a low, normal and high range of expected PCT applications. The Department of Program Planning and Finance, in collaboration with the Patents and Technology Sector, determines which range to utilize for the budget estimates based on the information available at the time of budget preparation. The estimates utilized have tended to be conservative and actual revenue has, therefore, exceeded the forecast.

9. Once the hedging strategy is in place, the same estimates would be utilized to project the anticipated revenue for the twelve month period of the hedge. If the forecast used is too high and revenue is less than anticipated in one of the three currencies, the Organization could find itself with insufficient USD, JPY or EUR to meet the amount required for the monthly forward purchase agreement in that currency. In this case, WIPO would be forced to sell Swiss francs to buy back a sufficient amount of the currency concerned from the bank. This could result in a serious loss of funds if the value of that currency had declined against the Swiss franc.

10. If the forecast is too low in a particular currency, the fees paid in excess of the forecast would not be hedged and, if the currency had lost value in Swiss franc terms, this would result in a loss of potential additional income. However, it has to be noted that such a loss would not impact the budgeted income of the Organization.

11. Discussions will take place between the Economics and Statistics Division, the Patents and Technology Sector (which administers the PCT) and the Program Planning and Finance Department to ensure that the forecast utilized for the forward contracts to be obtained is as accurate as possible and contains all of the information required to monitor the effectiveness of the hedging strategy. In addition, the forecast is currently prepared by calendar quarter and by country and it will be necessary to determine whether the current approach will provide all of the information required to establish the appropriate hedge level and to monitor the effectiveness of the individual monthly forward contracts.

## HEDGING ONLY THE NET AMOUNT OF CASH AVAILABLE BY CURRENCY

12. WIPO can only enter into forward purchase agreements for the net amount of each currency that will be available during each of the twelve months of the hedging period. While WIPO has only a nominal amount of disbursements in JPY, disbursements in USD amount to an average of USD 6.0 million per month or 45 per cent of total annual revenue received in USD. The disbursements cover the contribution to the UN Joint Staff Pension Fund, payment for the International Computing Centre charges, taxes for US employees and travel costs, etc. for which payment is mandated in USD. Disbursements in EUR average 20.0 million euro per year or 40 per cent of the total revenue received in EUR, most of which relates to PCT search fees received by the International Bureau as a PCT receiving Office (RO, largely in CHF, with some in USD and some in EUR) payable to the European Patent Office (EPO) in its capacity as a PCT International Searching Authority.

13. The WIPO Treasury Management Study prepared in March 2014 raised this issue and pointed out the potential problem caused by the fact that for USD and also for EUR only part of the PCT fee income would be hedged. Since fees payable in the three currencies will be set at the blended hedge rate, about 55 per cent of USD and about 40 per cent of EUR fees will be paid by applicants at the fee level based on the blended hedge rate, notwithstanding the fact that any currency exchange adjustments will not be offset by the change in the value of the forward purchase contracts.

14. At present, should the change in revenue caused by an exchange rate fall against the Swiss franc exceed the 5 per cent for four consecutive Fridays stipulated in the PCT Assembly Directives, the Director General can currently respond by setting a revised rate after consultation. However, once the hedging strategy is in place, the rate would be fixed at the hedged rate for 12 months without possibility of change, notwithstanding the fact that only part of the PCT revenue would be protected by the forward contracts. Having eliminated the current PCT new equivalent amount procedure and set all the fees payable in each of the currencies at the blended hedge rate, WIPO would be unable to offset the exposure created by exchange gains or losses on revenue on the unhedged portion of the PCT fee income.

15. To a certain extent the unhedged PCT fee income in EUR and USD would be offset by the fact that, should exchange rates reduce the Swiss franc value of PCT revenue in these currencies, the Swiss franc value of the disbursements in these currencies would also be reduced. However, this disbursement “offset” already exists under the current new equivalent amount procedure and WIPO benefits or is penalized by the change in the Swiss franc value of the disbursements whether or not the hedging strategy is implemented.

#### QUALITY AND ACCESSIBILITY OF DATA

16. If WIPO implements a hedging strategy, it will be essential that all of the data utilized in forecasting the requirements and in monitoring the effectiveness of the hedge is as accurate as possible. Currently, there is no automated interface between the PCT IT system (BibAdmin) and the Finance IT system (AIMS). This is due primarily to security concerns, aimed at controlling the access to data related to international applications. However, once the hedging strategy is in place, it will be increasingly important for the statistical information on PCT applications and the information on revenue collections to be linked as closely as possible and for the data in the two systems to be as accurate as possible, so that trends related to exchange differences can be tracked and problems responded to quickly. A plan to ensure that data access and quality can be assured still has to be developed.

17. In addition, WIPO’s accounting system is accrual based to ensure IPSAS compliance. The data reporting necessary to monitor and evaluate cash flow must be enhanced to ensure that staff have access to the information required on a real time basis. The departments involved will coordinate on the essential reporting requirements.

#### UNCERTAINTY OF CASH FLOWS

18. A review of data on the transfer of funds to the International Bureau (IB) by PCT receiving Offices (RO) from 2012 to 2015 (August) indicated that, while PCT fees paid for the benefit of the IB were transferred fairly regularly by ROs to the IB, in almost every year such PCT fees for one or more months were not paid in the following month, as required by the PCT Receiving Office Guidelines. Since forward purchase contracts for each of the currencies will be set with the contracting bank(s) on a specific date each month in which the contract is executed, WIPO must be certain that it has sufficient funds available in each of the three currencies on the date set in the contract.

19. As mentioned in paragraph 9, above, if insufficient JPY, USD or EUR were held at the contract date, WIPO would be forced to sell Swiss francs possibly at a loss to cover the contracted amount. To reduce this risk, it appears necessary for WIPO to retain sufficient funds equal to at least one month’s forecast receipts in each currency. Retaining such a substantial amount of funds in these currencies creates another risk, since the amount held on deposit will be revalued at month-end to reflect exchange differences with the Swiss franc. Any resulting exchange gain or loss will be reflected in WIPO’s financial performance on the financial statements.

20. In addition, the day of the month on which funds are received by the IB in the month following receipt by the RO often varies considerably. Based on the analysis, it appears necessary for the monthly forward contract dates to be set later in the month than originally anticipated, possibly the 25<sup>th</sup> of the month or later. The later in the month, the greater the spread between the UN operational rate of exchange (UNORE) (set on the 1<sup>st</sup> of the month and adjusted on the 15<sup>th</sup> of the month if the rate changes more than 3 per cent) and the hedged rate agreed with the contracting bank(s). Since the UNORE is used in the financial statements to establish the value of the forward contracts when they are executed, the later in the month that the contract execution date is set the more potential exchange volatility to which the hedging strategy is subject.

21. A further issue is that, while income estimates have been conservative, the amount receivable each month varies considerably from year to year, making it difficult to predict monthly receipts and therefore to establish the appropriate level of monthly forward contracts. Analysis shows that it is not possible to discern a cash payment pattern. As a result of this problem, the forward contracts will have to be set in fixed monthly amounts not directly related to cash flows. For further assurance, it appears that it will be necessary to establish smaller forward contracts at the beginning of the hedging period in order to enable the Organization to accumulate amounts of the three currencies concerned during the early part of the year, in addition to the one month's forecast mentioned above, to ensure against monthly delays in receipt of funds transferred from ROs.

#### HEDGING PERIOD

22. The proposal agreed by the PCT Working Group provides for a hedging strategy commencing January 1, 2016, and assumes that the period covered by the forward contracts would be for twelve months starting in January of each year. However, this appears to require further review, due to the methodology agreed with the External Auditor for the recognition of PCT revenue in the financial statements.

23. In the IPSAS compliant financial statements, when an applicant files a PCT application with the RO, a receivable is recognized in WIPO's accounts in the currency in which PCT fees have been paid to the RO at the filing date. When the fees are transferred by the RO to the IB, the receivable is reversed. The difference between the Swiss franc value of the receivable at the UN operational rate of exchange (UNORE) at the filing date and the value at the date of receipt of the funds by the IB is recognized as an exchange gain or loss. The impact of these transactions has created a substantial portion of the exchange differences in the accounts during the past several years as follows:

<b>PCT Fee Income</b>			
<b>Exchange gain (loss) recognized (Note 1)</b>			
Currency	2013	2014	2015 (6 months)
Euro	698'168	-459'941	-2'057'922
Japanese Yen	-4'854'137	-1'285'830	-2'156'232
US dollar	-1'507'127	89'681	1'627'058
Other	-345'959	-75'706	-410'065
<b>Total</b>	<b>-6'009'054</b>	<b>-1'731'796</b>	<b>-2'997'161</b>
Note 1 -Difference in value of application at filing date and date of receipt by PCT International Bureau			

24. Generally, there is a one to three month time lag between the filing date and the date of receipt of the fees by the IB. Discussions with the consultant providing technical advice on accounting procedures have revealed that, if the hedging strategy is implemented from January to December of each year, it would not completely offset in the Financial Statements any exchange gain or loss on applications filed in January or February. For this two month period,

the fee paid by the applicant would be based upon the prior year's blended hedge rate and the forward contract would be at the rate of the current year. The resulting exchange gains or losses would, therefore, continue to be recognized in the Financial Statements during this period.

25. The impact of hedging on the financial statements is further complicated by the fact that revenue is recognized on the Statement of Financial Performance at a different phase of the international application cycle than in the budget. Revenue is recognized in the budget on a cash basis – when the funds are received by the IB from the ROs. In the financial statements, when an application is filed with a RO (or the IB as a RO) it is recognized as an advance receipt and reflected as a liability in WIPO's accounts until all of the work of the IB on the application has been completed. This has been determined to be the date on which the application is published in the Gazette. This takes place generally six months after the filing date. At that date, revenue is recognized at the Swiss franc value of the fee paid at the filing date.

26. For example: once the hedging strategy is implemented, the fees paid in 2016 would be based on the blended hedge rate set toward the end of October 2015. However, in the first six months of 2016, revenue would be recognized in the financial statements for fees paid during the last six months of 2015 under the PCT new equivalent amount process and during the second six months of 2016 at the blended hedge rate utilized in the forward contracts. In 2017, revenue would be recognized for the first six months at the 2016 hedge rate and in the second six months at the 2017 hedge rate.

27. To offset the first exchange rate differences between the filing date and date of receipt from the RO, rescheduling the hedge effective dates to begin in March of each year and end in February of the following year would be required. To protect against the second (revenue recognition) exchange difference, rescheduling the hedging and therefore the establishment of the fees from July to June of the following year rather than the calendar year would be appropriate. A determination of which hedging period provides the most protection to WIPO's revenue still needs to be made. The implications of these potential changes require further study and discussion with the External Auditor to make certain that the approach utilized fully accords with the revenue recognition.

28. It must also be noted that changing the hedging period from the calendar year to either the March to February or the July to June period would move the dates of the hedge forward from 15 months from the date in which the forward contracts were executed (on the first Monday of October of the previous year) to 17 months (for March to February) or 21 months (for July to June). The change could increase the cost of the forward contracts and also the level of the blended hedge rate, as the contracting bank(s) would have to take the additional risk into consideration when making their tender.

#### HEDGING OF SEARCH FEES

29. Under a pilot program with the United States Patent and Trademark Office (USPTO), the European Patent Office (EPO) and the International Bureau, WIPO currently receives search fees in USD in respect of PCT applications filed with the USPTO and for which the EPO is the competent International Searching Authority, which collects its fees in EUR. WIPO utilizes the EUR it has on deposit to transfer those search fees in EUR to the EPO. The EUR amount involved is substantial, totaling USD 51.8 million in 2014. The procedure currently has no impact on exchange gains or losses, since the transaction is processed completely within one calendar month without currency exchange rates fluctuation.

30. However, as discussed in paragraph 12, above, WIPO can only hedge its revenue against exchange rate gains or losses in a currency to the extent of the net amount of the currency it has on hand each month. If the current process of transferring funds to the EPO were to continue, WIPO would have additional USD and less EUR on hand each month, substantially

changing the ratios of net funds available in these currencies, as discussed in paragraph 12, above.

31. Currently this is a pilot study subject to annual review. There are alternative strategies to enable WIPO to continue this arrangement as follows:

(a) Continue to utilize EUR on hand to transfer the search fees in EUR to the EPO and hold the USD sent to WIPO by the USPTO. This would change the ratios discussed in paragraph 12, above, so that 90 per cent of the PCT fees payable in USD would be hedged rather than 55 per cent. However, there would be no EUR available to hedge the PCT fees in EUR, since WIPO would have no EUR to convert to Swiss francs through forward contracts.

(b) Sell the USD received to purchase EUR. However, this could result in exchange differences even if the USD was sold immediately, since the sale would be at the rate offered by the bank and any difference between the bank rate and the UNORE rate at the date of sale would be recognized as an exchange gain or loss.

(c) Purchase a forward contract to hedge this transaction separately from the PCT revenue hedges. This would seem the most practical solution; however, it raises cash flow concerns similar to those discussed above in paragraphs 18 to 21.

32. Further study needs to be undertaken before any agreement is reached on extending the current arrangement. This study will form part of the “proof of concept” simulation for the hedging of search fees undertaken at the request of the PCT Working Group (see paragraph 4.c above). In addition, the accounting to be used for whichever approach is determined to be the most appropriate will have to be discussed with the External Auditor to ensure that it will not result in a qualification of WIPO’s financial statements.

#### ACCOUNTING TREATMENT OF HEDGING UNDER IPSAS

33. As mentioned, a consultant has been engaged to provide information on the accounting transactions that would be required to retain full IPSAS compliance once the hedging strategy is in place. IPSAS-29 *Financial Instruments: Recognition and Measurement* provides optional approaches that can be utilized in accounting when a highly probable forecast transaction of PCT fee income is hedged by a series of monthly forward contracts. Each option has advantages and disadvantages that need to be examined to see which treatment responds most effectively to the recommendations of the PCT Working Group. The consultant will provide detailed information on the impact of the options available along with recommendations.

#### IMPACT ON THE FINANCIAL STATEMENTS

34. In addition to the examination of the impact of the hedging strategy on the budgetary results, it is essential that the impact which the implementation strategy would have on Financial Performance and on net assets/reserves as reported in the Financial Statements under IPSAS be examined. An analysis is in progress to show the impact that the hedging strategy would have had on WIPO’s budgetary results and financial statement results for 2013, 2014 and the first half of 2015. This will help in identifying which accounting approach best protects both WIPO’s budgetary results and its IPSAS based net assets/reserves from the impact of exchange fluctuations. Whatever strategy appears optimal will need to be discussed in detail with the External Auditor to make certain there is agreement on the impact that the approach will have on the audited financial statements.

35. One difficulty in looking at the historical information is that each of the three currencies has behaved very differently in its relationship to the Swiss franc. Information on the impact of recent changes in the relationship of the three currencies to the Swiss franc is contained in Annex I.

## **THE WAY FORWARD**

36. As explained above, several concerns and risks have been identified which, in the view of the Secretariat, require further research and thorough analysis before committing to a particular hedging strategy and entering into contractual relationships with hedging counterparties. Such work will obviously require time and resources and the time involved could be significant, given the complexity of the issues involved. If the hedging strategy were to be implemented without having limited the risks associated with the issues identified, the potential financial cost to the Organization could be considerable.

37. The guidance of the Committee is thus sought as to how best to proceed at this stage, noting that the PCT Union Assembly is invited (see document PCT/A/47/5) to adopt, at its upcoming October 2015 session, changes to the PCT legal framework with a view to enabling the International Bureau to commence hedging of international filing fees as far as the risk resulting from transactions in euro, Japanese yen and United States dollar is concerned.

[Annex follows]



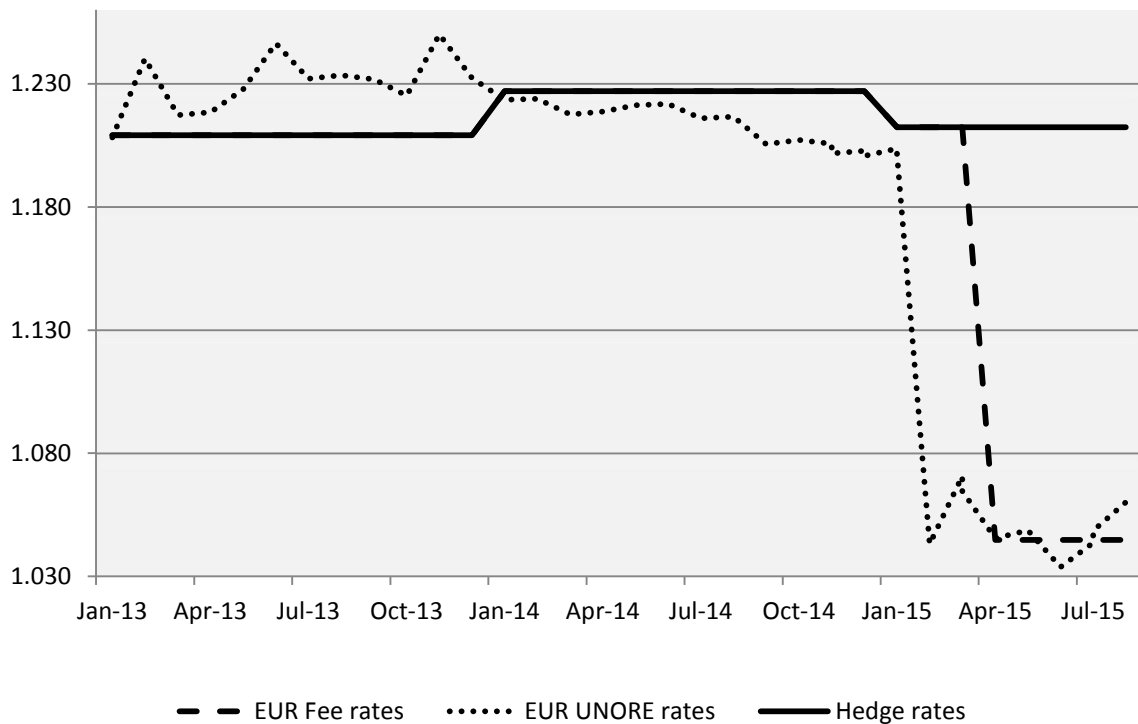
**RELATIONSHIP OF EUROS, JAPANESE YEN AND US DOLLARS TO THE SWISS FRANC IN 2013, 2014 AND 2015 (UP TO JULY 31, 2015)**

1. The following charts show the relationship of the three currencies to be hedged to the Swiss franc during 2013, 2014 and the first seven months of 2015. The dashed line show the rate used in the establishment of the PCT fee, the dotted line the UN operational rate of exchange and the solid line the estimated rate that would have been utilized as the blended hedge rate if the forward contracts had been purchased in October of each year.

2. During the period from January 2013 to January 2015, the Swiss franc was “pegged” to the euro, with the relationship allowed to fluctuate only within a very narrow range. There were no changes in the PCT fee levels during this period and the PCT fees tracked the hedged rate. However, when the Swiss National Bank removed the peg, the rate fell by 17 per cent, though it has recovered somewhat beginning in July. With the PCT new equivalent amount process currently in effect, new equivalent amounts of PCT fees were fixed with effect from April 1, 2015, enabling WIPO to stabilize losses in PCT fee income.

3. Had the proposed modified equivalent amount process already been in place, the PCT fees payable in EUR would have been fixed at the blended hedge rate set in October 2014, that is, before the peg was removed. Thus, applicants would have continued to pay the lower fees in EUR, resulting in a loss of PCT fee income and a significantly lower total revenue for the organization. However, the loss would have been offset by the gain realized on the execution of the forward contracts (CHF received from the forward at the blended hedge rate vs. CHF receivable at the UNORE).

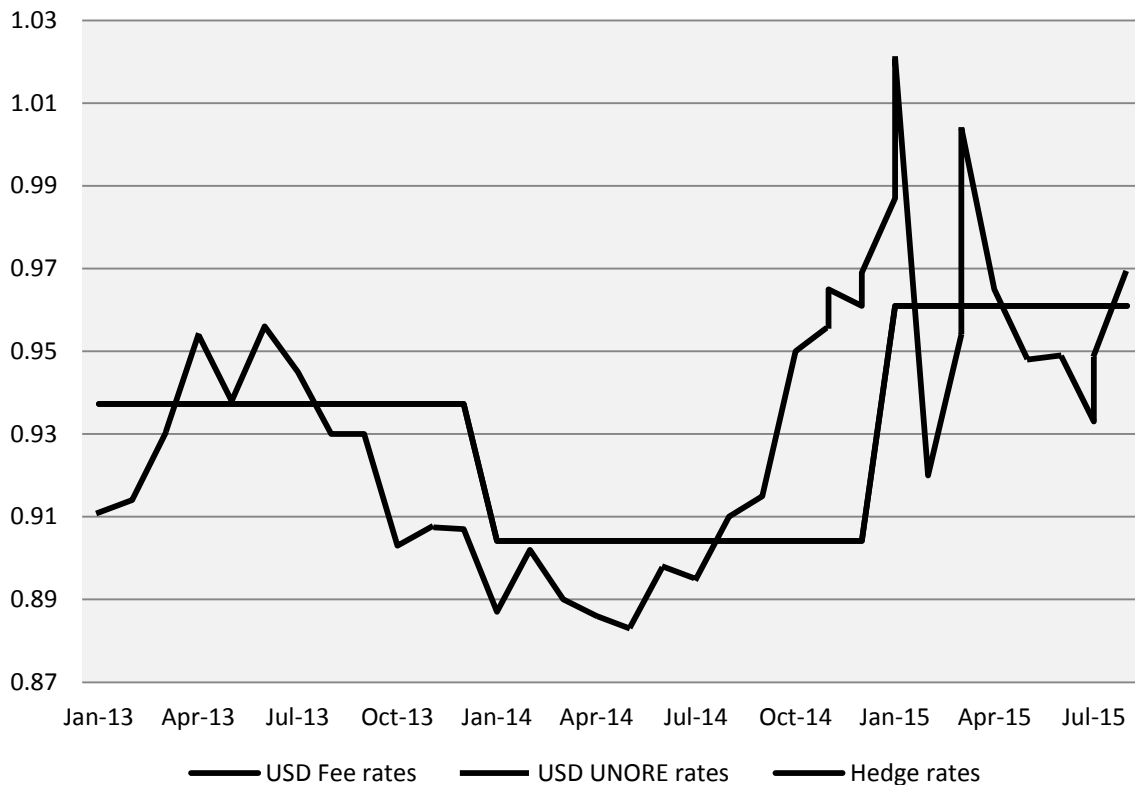
Euro (EUR) = Swiss franc



4. The USD = Swiss franc exchange rates have fluctuated during the period January 2013 to July 2015 but have consistently remained within the 5 per cent band over four Fridays set under the current PCT new equivalent amount process. Therefore, during the entire 31

month period, there have been no changes in the PCT fees using the new equivalent amount process and the blended hedge rate, had it been in place, would have, in effect, closely tracked the USD fee rate. The UNORE rate increased and decreased significantly during the period, resulting in a large loss in 2013 and a large gain in 2015 (year to date), as shown in the table following paragraph 23 above. A review indicates that the impact of the hedging strategy on the fees paid in US dollars would have been minimal.

US dollar = Swiss franc

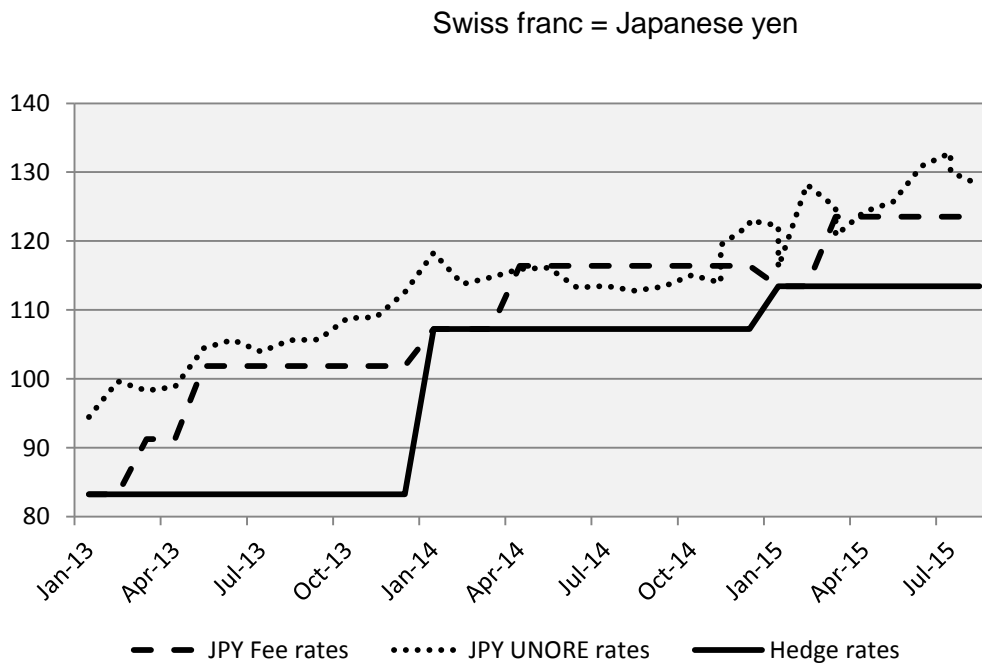


5. The relationship between the Swiss franc and the Japanese yen has been a steady, almost straight line decline from January 2013 to July 2015. In January 2013, one CHF = 82 JPY, increasing by over 55 per cent to 128 in July of this year.

6. During the 31 month period the PCT fee rates payable in JPY were adjusted six times, using the existing new equivalent amount process, as shown below; a further reduction of 8.4 per cent is scheduled for September 1, 2015:

Period	International fee	Fee per sheet over 30	EASY Reduction	XML Reduction	Handing Fee	Percent adjustment
01.01.2013	110'700	1'200	8'300	25'000	16'600	
01.03.2013	121'400	1'400	9'100	27'400	18'300	9.7%
01.05.2013	135'500	1'500	10'200	30'600	20'400	11.6%
01.01.2014	142'600	1'600	10'700	32'200	21'400	5.2%
01.04.2014	154'800	1'700	11'600	34'900	23'300	8.6%
01.01.2015	150'900	1'700	11'300	34'000	22'700	-2.5%
01.03.2015	164'300	1'900	12'400	37'100	24'700	8.9%

7. Had the hedging strategy been in effect during the 31 month period, the fees would have been fixed each year at the blended hedge rate set in the previous October (similar to the January 1 rates shown in the above table). This would have resulted in very large reductions in revenue received, by more than 20 per cent in 2013 and somewhat lower amounts in 2014 and 2015 to date. However, the loss in revenue would have been offset by the gain in value of the forward contracts, eliminating any net loss to WIPO.



8. As indicated in the tables above, had the hedging strategy been in effect for JPY in all three years and in EUR in 2015 to date, the applicants would have paid significantly lower amounts in fees, resulting in a loss of revenue to WIPO. However, this would have been offset by revenue resulting from the exchange gain arising from the execution of the forward contracts. However, if the reverse situation had been in effect and the JPY and EUR had strengthened against the Swiss franc, the opposite would have occurred – applicants would have paid more than under the current system resulting in a higher level of fee income, offset by losses on the forward contracts.

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