Item 15: Proposal to Invoice National Subscriptions in National Currencies

Proposal Description

The Working Party on National Subscriptions has proposed that National Subscriptions be billed in national currencies. The proposal would be implemented by first calculating the National Subscriptions in the usual fashion, in USD. The calculated National Subscriptions would then be converted to national currencies using the average exchange rates for the first quarter of the year in which they are calculated. Invoices would be generated for these amounts. Payment would be made in USD at the then applicable exchange rate when payment is made.

Implementation

National Subscriptions are now calculated using the following procedure:

1. Chemical turnover data for five years are collected from two sources, CEFIC and UNIDO. The most recent data available are usually for three years earlier. Thus for the calculation of the 2004-5 National Subscriptions, done early in 2003, data for 1996-2000 are used.
2. Each National Subscription is calculated using a formula to convert chemical turnover to National Subscription in line with the proposed budget for the next biennium.

This proposal would add one additional step to the calculation:

3. The National Subscription for each NAO would be calculated in its national currency using the exchange rate for the first quarter of the General Assembly year. Thus for the 2004-5 National Subscriptions, the exchange rates for the first quarter of 2003 would be used. Thus the amount of each NS *in national currency* for both 2004 and 2005 would be available at the 2003 General Assembly.
4. Invoices would be generated using the National Subscriptions calculated in national currencies.
5. Payment would be made in national currency and converted to USD at the exchange rate then applicable at the bank that transfers the funds or issues the USD check.

Analysis of the Proposal

This proposal addresses two concerns. The first is that for most countries budgeting for the IUPAC National Subscription is in a currency other than USD. This often leads to the situation that when the National Subscription is to be paid, the amount to be paid in USD is more than the equivalent amount budgeted in national currency, based on the exchange rate at the time the NAO learns what its National Subscription will be. This is often a hardship for the NAO since they do not have the financial resources to easily make up the difference. The proposal to bill in national currencies would eliminate this problem. The other situation this proposal addresses is that in which the exchange rate for an NAO changes dramatically. This has been the case for a number of NAOs, most recently for Argentina, Brazil, Korea, and Turkey. In situations such as these, the Treasurer has made adjustments on an ad hoc basis. This proposal would provide an automatic mechanism for dealing with these situations.

Figures 1-3 show the variation over the past twenty years of a number of currencies. As can be seen, over the one to three year periods important for this proposal, exchange rates for the major currencies have both increased and decreased with respect to the USD.

Impact on IUPAC Income

This proposal will lead in some cases to a lower payment in USD and in some cases to a higher payment. The expectation is that these variations will, over time, average to a small amount. However, this averaging is expected to be over comparatively many years and many currencies. IUPAC has the financial resources to absorb the losses in some years, whereas an individual NAO would have difficulty in absorbing a loss but might not see the benefits in the other years. In addition, IUPAC would be averaging over many currencies while an NAO would deal with only one currency.

Model Calculations

It is impossible to forecast with confidence the effect of this proposal on any individual NAO and on the net income for IUPAC, since we cannot predict variations in exchange rates. However, we can look retrospectively at the effect that the proposed process would have had over a period of years. The proposal would “lock in” the exchange rate from the first quarter of the GA year in determining payments in national currency at any time during the next two years. In contrast, what now happens is that the amount of national currency needed is determined by the exchange rate when payment is actually made. Most NAOs pay their NS relatively late in the year due. Thus, to estimate what would have happened if the proposed method had been in place since 1990, calculations were made using a model in which each NAO paid during the fourth quarter of each year

The model calculations suggest:

- The proposed billing in national currencies could provide significant benefit in particular years to many NAOs.
- The negative impact on IUPAC’s income in any given year is manageable by taking money from Reserves and restoring it in other years.
- There is some potential risk to IUPAC, but over a number of years, the net cost [or benefit] to IUPAC’s overall finances would probably be small.

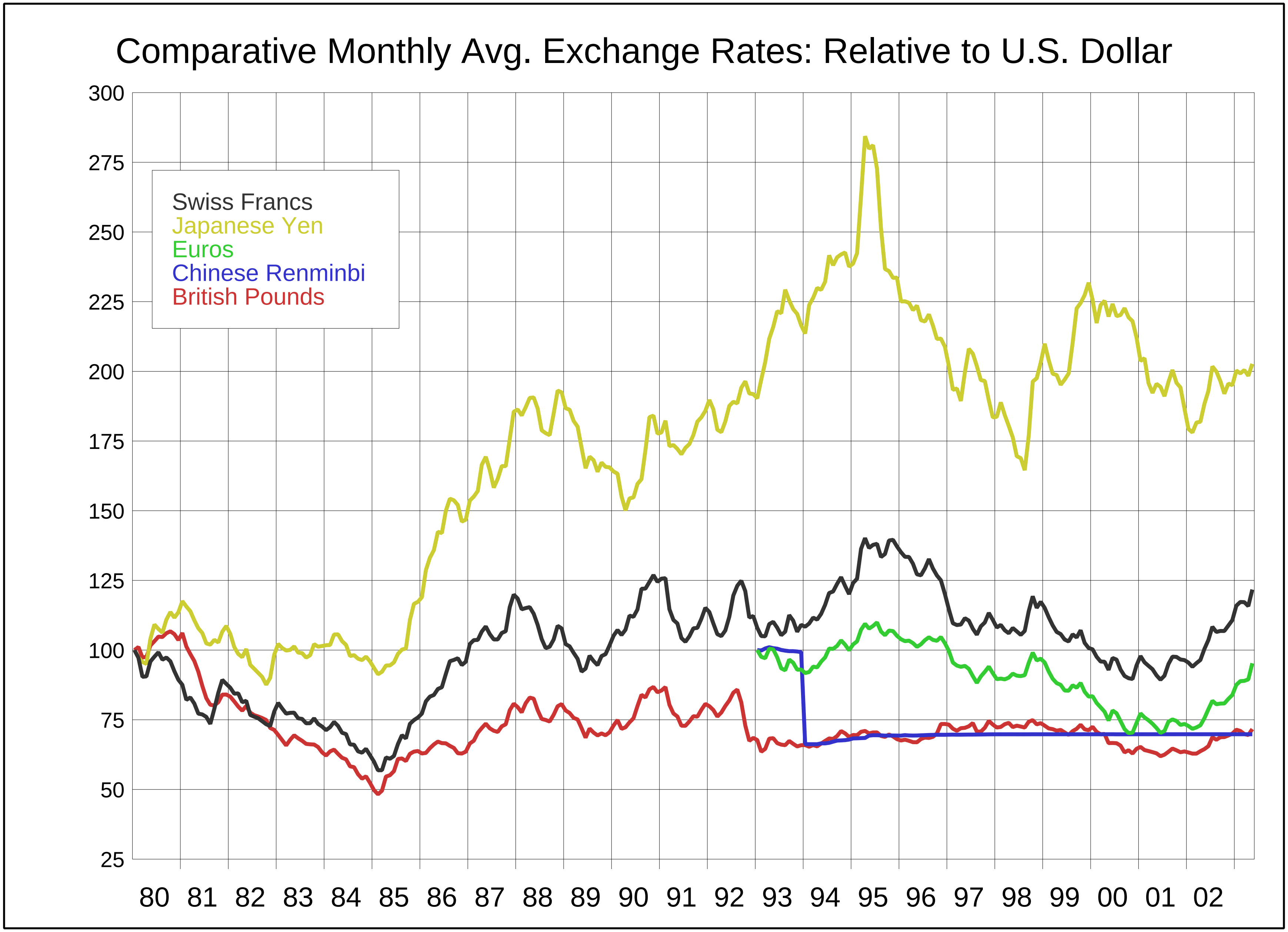
Longer Term Effects of Exchange Rate Changes

This proposal is designed to alleviate the variations in exchange rate that occur over the period of about three years from the time that the chemical turnover is determined for each country until its National Subscriptions are paid. Over a longer term of 4-8 years, the use of chemical turnover data tends to correct for a persistent devaluation or revaluation of a national currency, since the CT data are collected in national currency, then converted to USD. This long-term self-correction occurs with the present system and would remain unchanged if the proposed system of billing in national currency were adopted.

Result of approval of this proposal

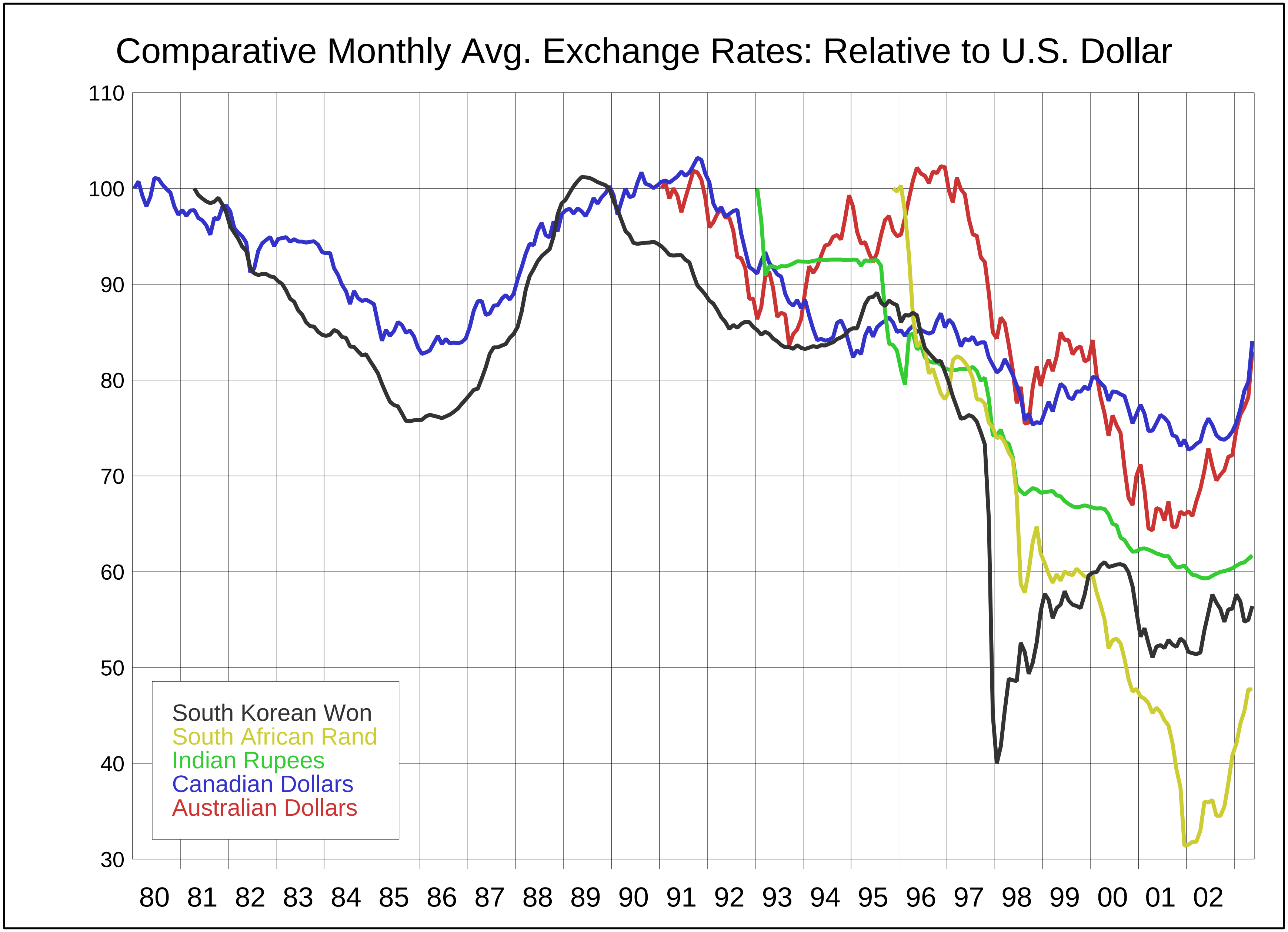
The table that follows shows the National Subscriptions in national currencies calculated using the proposed method. That is, the National subscriptions as shown in Item 14.3 have been converted to the equivalent amounts in national currencies using the average exchange rates for January, February and March of 2003. If this proposal is approved by Council, these amounts will replace the amounts in USD shown in Item 14.3.

Fig. 1



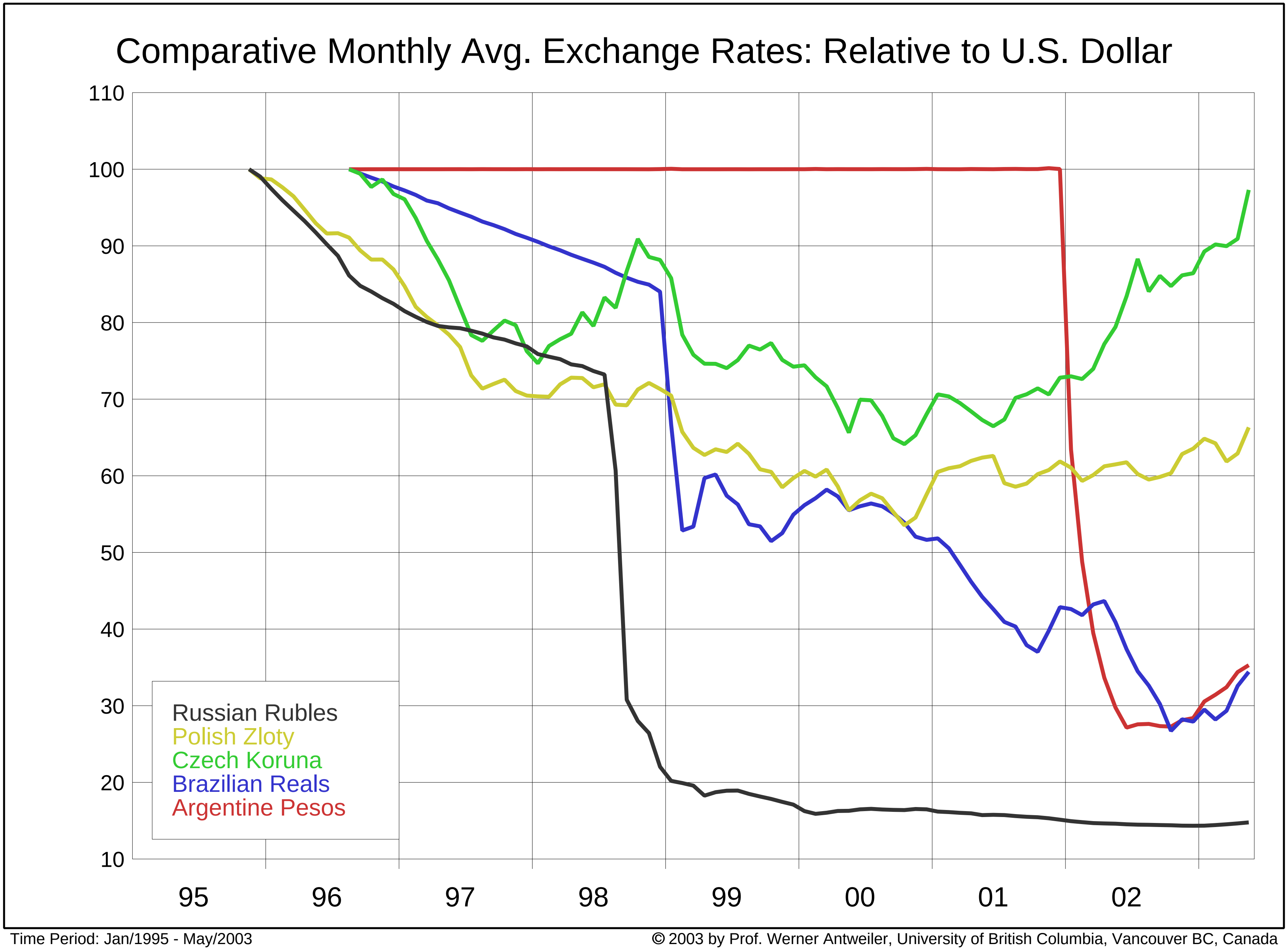
Time Period: Jan/1980 - May/2003

Fig. 2



Time Period: Jan/1980 - May/2003

Fig. 3


Comparative Monthly Avg. Exchange Rates: Relative to U.S. Dollar
110
100
90
80
70
60
50
40
30
20
10
95
96
97
98
99
00
01
02
Russian Rubles
Polish Zloty
Czech Koruna
Brazilian Reals
Argentine Pesos
Time Period: Jan/1995 - May/2003
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National Subscriptions 2004-5

NAO	Currency	**2004**	**2005**
Argentina	ARS	12.715	12.715
Australia	AUD	17.530	17.698
Austria	EUR	5.404	5.497
Belgium	EUR	19.192	19.378
Brazil	BRL	84.909	85.957
Bulgaria	BGL	2.910	2.910
Canada	CAD	23.854	24.005
Chile	CLP	2,727.665	2,801.385
China/Beijing	CNY	331.924	335.235
China/Taipei	TWD	522.853	529.778
Croatia	HRK	7.020	7.020
Czech Republic	CZK	120.781	123.726
Denmark	DKK	44.999	44.999
Egypt	EGP	22.742	23.271
Finland	EUR	5.310	5.404
France	EUR	34.750	35.123
Germany	EUR	49.284	49.750
Greece	EUR	3.447	3.540
Hungary	HUF	840.048	862.752
India	INR	935.730	945.278
Ireland	EUR	12.298	12.484
Israel	ILS	24.142	24.142
Italy	EUR	29.812	30.092
Japan	JPY	8,468.528	8,551.786
Korea, Republic of	KRW	27,730.010	27,970.097
Kuwait	KWD	0.300	0.300
Netherlands	EUR	17.887	18.074
New Zealand	NZD	7.826	7.826
Norway	NOK	34.603	35.309
Pakistan	PKR	179.760	179.760
Poland	PLN	26.163	26.553
Portugal	EUR	4.658	4.751
Puerto Rico	USD	16.200	16.400
Russia	RUR	322.810	325.974
Serbia & Montenegro	YUM	57.485	57.485
Slovakia	SKK	112.862	112.862
Slovenia	SIT	732.729	732.729
South Africa	ZAR	65.848	66.681
Spain	EUR	20.123	20.403
Sweden	SEK	79.549	80.404
Switzerland	CHF	23.221	23.495
Turkey	TRL	14,586,545.600	14,752,301.800
UK	GBP	17.477	17.664
USA	USD	111.200	112.300

NS in thousands of National Currency