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Guidelines for Compensation
of U.S. LHC Personnel
Working at CERN

September 2004

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1. Introduction

This document discusses guidelines for compensation of personnel costs incurred at CERN by the U.S. LHC experiments. This document is not meant to be an exhaustive guide that describes all possible circumstances. Rather, general guidelines are discussed that follow basic principles that we attempt to elucidate. Individual institutions within the LHC collaborations must retain their autonomy.

There is no one-size-fits-all solution to the issue of relocation benefits. The appropriate compensation can and will vary widely depending on individual and family circumstances. An overarching principle is that one should not suffer economic hardship as a result of being stationed at CERN, nor should one reap a financial bounty as a consequence. The basic idea is that reasonable costs should be reasonably compensated, and that doing physics research at the LHC should be roughly cost neutral for the researchers.

The issues of dislocation expenses may be more familiar at a typical university than at a national laboratory. University personnel and students have traditionally traveled for long or short periods to conduct research at the national laboratories. In addition, many universities have been involved in experiments at CERN or DESY and have already established policies in this regard.

A. Allowance Models

The issue of dislocation allowances and compensation for employees stationed abroad is one that has been investigated by a number of different organizations including the U.S. State Department, the United Nations, and various private organizations. The State Department in particular has developed detailed guidelines for compensation of employees stationed abroad.

The State Department Office of Allowances (<http://www.state.gov/m/a/als/>) develops and administers a government-wide allowances and benefits program and compiles statistics of living costs and differentials abroad, and computes the established allowances to compensate U.S. Government civilian employees for costs related to assignments abroad (see Appendix A).

In the private sector such organizations as the Economic Research Institute (ERI) (<http://www.eri.com/>) generate two-city cost of living differential reports using global cost-of-living data.

Nonetheless, a cost of living differential for high energy physicists can be very difficult to define inasmuch as it is impacted strongly by an individual's lifestyle and standard of living. As compiled by ERI, the Student Cost of Living for Consumables for Geneva as a percentage of the U.S. National Norm is 203%. The above "consumables" percentage

assumes a minimum wage earner or student sharing an apartment and paying minimum taxes. Consumables include convenience food items combined with weighted pricing patterns found in grocery and drug stores. The impact of consumables varies by earnings level - students' consumable expenses might consume 50% of their income while it may impact only 20% of a professional's earnings. In the latter case, cost-of-living is more affected by home ownership versus rent decisions, residence size, personal income taxes, and cost of services, transportation, and miscellaneous items.

The Users' Office at CERN (<http://ep-div.web.cern.ch/ep-div/UsersOffice/>) also provides information (see Appendix B) for estimating the cost of living in the Geneva area and in the surrounding region of France.

The Economist has popularized the Big Mac index (see Appendix C) as a measure of the purchasing power of the dollar versus various foreign currencies. See, for example, the Big Mac Index (<http://www.economist.com/markets/Bigmac/Index.cfm>) on *The Economist's* web site.

The Big Mac Index was devised 13 years ago as a light-hearted guide to whether currencies are at their “correct” level. It is based upon the concept of purchasing-power parity—the notion that a dollar, say, should buy the same amount in all countries. It may also be interpreted as a measure of the cost of living differential with respect to the United States. In April 2003 the cost of a Big Mac was 70% higher in Switzerland than in the U.S.

Most of the indicators imply that the cost of living is higher in the Geneva area than in the U.S. There is, however, anecdotal evidence that the cost of housing is higher in southern California than it is in the Geneva area.

We do not attempt to replicate the large amount of data that already exists relating the relative costs of living in the U.S. and in France/Switzerland in the Geneva area. Suffice it to say that at the present exchange rates a plus 20 percent differential seems about right.

B. Employee Categories

In discussing relocation benefits and guidelines we consider two distinct groups of employees: those who are “regular” employees of a U.S. institution, such as faculty members, research scientists, post docs, graduate students, engineers, etc. The other category, for want of a better term, we will refer to as “on-site” employees. These are personnel based full-time at CERN who are paid directly from research program funds, typically in Swiss francs through an institute's CERN team account. There are already examples of both types of employees within the U.S. LHC collaborations, each necessitating a distinct and separate set of decisions.

C. Duration of Stay

In the case of employees of a U.S. institution we consider four different ranges of visits: brief (less than a month), short (one to three months), medium (three months to a year), and long (more than a year). Although these divisions are somewhat arbitrary, they serve to illustrate different concerns or issues related to relocation that depend on the length of the visit.

In general, compensation for costs incurred during a brief visit is covered by established travel policy at most U.S. institutions. This is true to a lesser degree for short and medium term visits. Long term or essentially permanent assignment away from the home base may be novel for some institutions, particularly national laboratories where most employees report regularly to their home work site.

Among the issues that must be addressed are base salary level, housing, transportation, food, medical and disability insurance, and other benefits such as retirement contribution and costs of schooling for an employee's children. Tax issues can also strongly affect an individual's disposable income.

A relocation benefits guide for each category of employee is given in Appendix D.

2. Employees of a U.S. Institution Stationed at CERN

A. Base Salary

The base salary of an employee stationed at CERN for less than a year would normally not be affected by the CERN visit. For a long term or semi-permanent relocation to CERN the issue can be quite complex. If it is known the assignment will involve extended periods at CERN at the time the individual is hired, the base salary may or may not reflect a cost of living differential.

B. Housing

The assumption is that for short to medium term visits the cost of housing is a paid travel expense. Different institutions will have different methods of compensating employees for housing costs while on travel status. Typically, the cost of housing as supported by a receipt is reimbursed, or is covered by a general allowance. In either case, the amount paid is expected to correspond to the costs of the housing.

For visits of less than three months, a traveler would likely stay in either the CERN hostel or an off-site hotel. The hostel offers conveniences such as proximity to the cafeteria and CERN offices and access to shared kitchen facilities, but lacks some amenities typically found in hotel rooms.

For visits of three months or longer, it is possible to rent an off-site apartment. Furnished apartments are available in the area at costs less than the CERN hostel, and assistance in finding an apartment is available through the CERN Housing Service (<http://as.cern.ch/as-gs/housing/>).

Employees on long term or permanent assignment at CERN would be expected to secure their own lodging in the area. Compensation for the difference in cost between housing in the CERN area and housing at the employee's home area would typically be provided.

C. Local Transportation

The cost of local transportation would normally be provided an employee stationed at CERN. For short visits this would typically be a rental car, perhaps shared with other members of his/her group. For periods of three months or more a leased car is more economical than a rental. Long term or permanent assignment personnel would secure local transportation from their base salary plus a cost of living allowance (see below).

D. Meals

The cost of meals is typically included in a traveler's allowance, and is often set by home institute policy. Typical is payment of a set U.S. dollar amount per day of travel. Other institutions may reimburse only for costs, including food, for which a receipt is provided.

The amount of a per diem allowance would be expected to decrease with increasing length of visit. Typically one might take most dinners in local restaurants for a short visit, but for longer stays might eat more frequently in the CERN cafeteria or prepare meals using available kitchen facilities.

E. Health and Disability Insurance

Medical and accident insurance is typically provided as an employee benefit. However, serious issues arise with regard to health insurance for employees. Those who subscribe to an HMO plan may find the coverage to be minimal when abroad and may need to obtain supplemental medical protection. If that is the case, suitable compensation should be provided.

F. Family Issues

Employees who travel with their families may need to provide for the schooling of their children. Excellent private schools are available in Geneva (e.g., the International School) but they are quite expensive. On the other hand, public schools are available at no cost. The choice of private versus public schooling is a personal lifestyle choice and is, in general, not thought to require employer compensation.

G. Tax Matters

Tax matters need to be included when considering relocation benefits. As a consequence of tax treaties and the international status of CERN, visitors for a year or more may find they have little or no personal income tax liability. This document does not attempt to advise on tax matters, but it should be recognized that this issue might exist. The general principle that participation in LHC physics be cost neutral should provide guidance.

H. Cost of Living Allowance

Employees on long term or permanent assignment at CERN who are paid in U.S. dollars contend with two additional issues: the cost of living in the CERN area versus their home institution area and fluctuations in that cost differential due to changes in the U.S. dollar exchange rate. The average monthly Swiss franc to U.S. dollar exchange rate for the past 14 years is shown in the accompanying graph (Appendix E). The average value of the

exchange rate over this period is 1.44 CHF/USD. The base salary of an employee on long term assignment may or may not reflect a cost of living differential. If it does not, the employee may receive a cost of living allowance (COLA) to compensate for both fluctuation in the exchange rate and differences in the cost of living. If an employee's base salary includes a cost of living differential, COLA would protect only against fluctuations in the exchange rate.

Different institutions use different means of calculating COLA. Typically, a stated fraction of a U.S. dollar salary is supported at a given CHF/USD exchange rate. The salary fraction supported and the support exchange rate vary widely by institution and by negotiated agreement with the employee stationed at CERN.

An illustrative example is that presently adopted at Fermilab, where COLA applies to 100% of "take-home" pay (excluding some fringe benefits and exclusions which are mandatory), and is activated when the exchange rate falls below 1.4 CHF/USD. This COLA is compounded with a 20% increment based on an estimate of the cost of living in the absence of the above currency fluctuation. That standard practice at Fermilab is now applied in an ad hoc basis for long term (> 1 year) visits. The Human Resources group at FNAL have met with US CMS and have agreed with the basic principle that a CERN visit should be cost neutral. They are working on a more detailed policy which address some "end effects" such as travel and moving expenses and some of the negotiated issues which appear in Appendix D. For example, it appears to be cheaper and more useful to buy health insurance coverage in Europe rather than use the Fermilab plan. When the HR decisions are finalized, the adjustments will be made at the payroll level, so that proper reporting for tax purposes is made. These changes will be communicated to US CMS in a revised version of this document.

Other examples are a university that supports 65% of gross salary at 1.8 CHF/USD, and another university that supports post doc salary at 1.8 CHF/USD and graduate students at 2.0 CHF/USD but with no further adjustment below 1.25 CHF/USD.

3. "On-site" Employees at CERN

In some ways the simplest category of employee to consider is what we call an "on-site" employee. This designation is used for a person paid a subsistence allowance at CERN in Swiss francs, but who does not receive normal employee benefits.

The base salary of such a person should be roughly consistent with CERN practice. We do not want U.S. experimenters to be seen as exploiting our employees. An allowance is typically included for health and disability insurance, with consideration of an amount corresponding to a retirement contribution.

Health insurance is available through the CERN Health Insurance Scheme (CHIS) (http://humanresources.web.cern.ch/Humanresources/external/soc/health_insurance/) for unpaid associates and users at a cost slightly less than 1000 CHF per month. Other insurance is available in Switzerland or in France that may better meet the needs of some employees.

Accident insurance is also available through UNIQA at CERN. The "Accidenta C-225" disability insurance is available at an annual cost of 150 CHF for men and 137 CHF for women.

On-site employees paid by U.S. CMS receive an allowance for health insurance, and are required to provide proof that health insurance is in force. Accident insurance is provided for all such employees. There is an ethical imperative that all our employees be covered for basic human needs.

Appendices

Appendix A: Department of State Maximum Per Diem Rates

Appendix B: Cost of Living in the Geneva and Pays de Gex Area

Appendix C: Big Mac Index

Appendix D: Relocation Benefits Guide

Appendix E: Swiss Franc Exchange Rate

APPENDIX A:

DEPARTMENT OF STATE MAXIMUM PER DIEM RATES



Maximum Travel Per Diem Allowances for Foreign Areas

Section 925, a Supplement to the Standardized Regulations (Government Civilians, Foreign Areas) PD Supplement 471; August 1, 2003

Reminder **Notices:**
Note **for** **Foreign** **Travel** **Rates:**
Room taxes have **not** been removed from the foreign travel rates. Therefore, separate claims for taxes **will not be allowed** for foreign travel.

Laundry and dry cleaning expenses remain part of the incidental portion of the per diem rate for travel to foreign and non-foreign (outside CONUS) areas, and may not be claimed as a separate expense.

For travel within the CONUS area (48 contiguous states and the District of Columbia) effective January 1, 1999, per diem rates excluded room taxes and laundry, dry cleaning and pressing. These expenses may be claimed separately. Personnel should check with their individual agencies for specific guidance. In addition effective January 1, 2000, taxes on lodging became separately reimbursable for Alaska, Hawaii, Puerto Rico, the Northern Mariana Islands and Possessions of the United States.

The latest Per Diem, Travel and Transportation Allowance Committee's [Civilian Personnel Bulletin](#) containing non-foreign locality per diem rates for Alaska, Hawaii, the commonwealths of Puerto Rico and the Northern Mariana Islands, and possessions of the United States is attached to this publication.

[Maximum rates](#) of per diem allowances for travel in foreign areas are established by the Secretary of State. These rates apply to all U.S. Government employees and contractors. For regulations pertaining to these rates, see the Federal Travel Regulation (Chapter 301-11) as established by the General Services Administration and implementing regulations established by

Federal Agencies. (Foreign Affairs Agencies - See 6 FAM 150; Defense Agencies - See Chapter 4 of the JFTR, Vol 1, for Members of the Uniformed Services and JTR, Vol 2, for Civilians.) [Appendix B](#) of Chapter 301 of the Federal Travel Regulation also contains information on the allocation of M&IE rates to be used in making deductions from the M&IE allowance.

REIMBURSEMENT OF ACTUAL SUBSISTENCE EXPENSES - For civilian employee travel in foreign areas involving special or unusual circumstances, the reimbursement of actual and necessary itemized subsistence expenses shall not exceed 300% of the applicable maximum foreign travel per diem allowance (rounded to the next higher dollar). The reimbursement for M&IE shall not exceed 300% of the applicable M&IE rate (rounded to the next higher dollar). For regulations governing the reimbursement of actual subsistence expenses, see chapter 301-8 of the Federal Travel Regulation or pertinent agency implementing regulations.

Per Diem Allowances for Travel in Foreign Areas

Information for Federal Agencies and Travelers
The foreign travel per diem allowance is a payment in lieu of reimbursement for actual subsistence expenses. The payment is provided to an employee and eligible dependents for daily expenses while on temporary travel status in the listed localities on official business away from an official post or assignment. The established rates are maximum amounts. Under travel regulations implemented by the General Services Administration and individual Federal agencies, authorizing officials are required to reduce the maximum rates when necessary to maintain a level of payment consistent with necessary travel expenses.

All travelers are advised to request information on hotel discounts for U.S. Government employees when arranging for hotel reservations. They should also seek information on the possible avoidance of taxes or their refund upon return to the United States or their post of assignment.

Separate amounts are established for lodging and meals plus incidental travel expenses (M&IE). The maximum lodging amount is intended to substantially cover the cost of lodging at adequate, suitable and moderately-priced facilities. The M&IE portion is intended to substantially cover the cost of meals and incidental travel expenses such as laundry and dry cleaning. The maximum per diem rates for foreign countries are based on costs reported in the Hotel and Restaurant Section (Form DSP-23W) submitted by foreign posts. This report includes prices for hotel rooms and meals at facilities representative of moderately priced and suitable hotels and restaurants most frequently used by typical Federal travelers. The lodging portion of the allowance is based on average reported costs for a single room, including any mandatory service charges and taxes. Where breakfast or other meals are included in the reported lodging charge, these costs have been adjusted to exclude meals. The meal portion is based on the costs of an average breakfast, lunch, and dinner at facilities typically used by employees at that location, including taxes, service charges, and customary tips. The M&IE rate is based on these meal costs plus an additional amount, equal to 10% of the combined lodging and meal costs, to cover incidental travel expenses.

Requests for Per Diem Revisions

In order for the Department of State to maintain appropriate travel per diem rates in foreign areas, employees of the Federal Government who believe that the per diem rate authorized for a particular area is inappropriate for expenses normally encountered while on temporary duty are encouraged to notify their respective agency travel officials. Those agencies that receive complaints about a per diem rate for a locality where there is frequent travel may submit a request to the Department of State for review. This request should include cost data on lodging and meals using Form DSP-23W. This information must be submitted in accordance with instructions in sections 074.3 of the Standardized Regulations (Government Civilians, Foreign Areas).

FOREIGN AREAS

This Per Diem Supplement to the Standardized Regulations (Government Civilian, Foreign Areas) lists all foreign areas alphabetically. Where a country or island is listed it is intended to include all territory within the boundaries of that country or island including any off-shore islands in the same general vicinity. It will not include territories or possessions located elsewhere even though considered an integral part of the parent country or island. In such cases, no cost data pertinent to such territories and possessions were used in determining the established rates. When a political subdivision smaller than a country is named such as: states, provinces, departments, cities, towns, villages, etc.; it will include the corporate limits of such political subdivision or the limits of territory within the normal boundary thereof if it is not incorporated.

Post/Country Changes:

Effective August 1, 2003, Balearic Islands will no longer appear as Balearic Islands in the 925 Per Diem Supplement. The island location is now listed under Spain.

Post Deletions:

Effective August 1, 2003, Northern Iraq will be deleted from the 925 Per Diem Supplement.

New Listing:


Effective August 1, 2003, a new listing has been added to the 925 Per Diem Supplement for the following area in Spain: Balearic Islands.

Footnote Changes:

Footnote 2: Effective July 13, 2003, Danger Pay was eliminated for Medan, Indonesia.

Effective July 13, 2003, Danger Pay is limited to the following areas in Other Indonesia: Aceh, Maluku, Papua (Irian Jaya), West Timor, Kalimantan, Sulawesi.

	MAXIMUM LODGING AMOUNT (A)	M&IE RATE + (B)	MAXIMUM PER RATE = (C)	DIEM EFFECTIVE DATE
FRANCE				
Lyon	140	91	231	9-1-01
Marseille	113	93	206	9-1-01
Paris __6/	236	111	347	8-1-03
Strasbourg	137	73	210	9-1-01
Evian _21	259	119	378	8-1-03
SWITZERLAND				
Basel	214	127	341	8-1-03
Bern	165	121	286	8-1-03
Geneva	182	145	327	8-1-03
Montreux	224	129	353	8-1-03
Zurich	151	114	265	8-1-03



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APPENDIX B:

Cost of Living in the Geneva and Pays de Gex Area

Source: <http://ep-div.web.cern.ch/ep-div/UsersOffice/RegionalInfoGeneva/Costofliving.html> (Accessible from within CERN.CH Domain)

Social Affairs Service
January 2002
Human Resources Division
HR/SOC/SO/gh

A BASIS FOR ESTIMATING THE COST OF LIVING IN GENEVA

AND IN THE "PAYS DE GEX"

CONTENTS

- Canton of Geneva / Switzerland..... pages
14-19
- Pays de Gex / France.....pages
19-23

For your information:

Exchange rate: 1 FRS = 0.64 €

Centre des Impôts of Bellegarde, average calculated for the year 2001.

The information given in this document may be regarded as a basis for estimating the cost of living in Geneva and in the Pays de Gex (neighbouring France), bearing in mind that the prices indicated are only **APPROXIMATE**,

**CANTON OF GENEVA
SWITZERLAND**

RENT AND VARIOUS CHARGES

RENT (without charges)	Unfurnished (CHF per month)	Furnished (CHF per month)
Studio flat	500 - 1000	700 - 1250
3-room flat (one bedroom)	900 - 1700	1000 - 1800
4-room flat (two bedrooms)	1100 - 2800	1400 - 3500
5-room flat (three bedrooms)	1600 - 3500	1900 - 4000

N.B.: In Geneva, the kitchen is counted as a room.

Please contact the CERN Housing Service:
Tel: (00 41) (0)22 767. 41.55
Email: housing.service@cern.ch
Web: <http://cern.web.cern.ch/CERN/housing/Housing.html>

ELECTRICITY

-
Consumption (domestic tariff): 26,29 centimes per kWh + VAT 7.6% (for an apartment)

NATURAL GAS

Consumption (domestic tariff): 10,5 centimes per kWh +VAT 7.6%

Please contact the Services Industriels de Genève.

Tel: 420.8896 on arrival and prior to departure. Web: <http://www.siq-ge.ch/>

TELEPHONE

Telephone rental: 25 CHF per month
+ appliance (from 5 to approx. 30,00 CHF /month)

Local call rate (normal rate): 0,30 CHF / mn

For further information please contact Telecom PTT Direction Genève.

Tel: 797. 7113. Web: http://www.swisscom.com/fx/content/index_FR.html

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RADIO, TELEVISION

Radio-TV licence: 108 CHF / quarterly

Contact the company *BILLAG SA, CH - 1701, Fribourg.*

Tel: 0844. 834. 834. Web: <http://www.billag.com/home/index.php>

COMPREHENSIVE HOUSEHOLD INSURANCE POLICY

Cover against burglary, fire, flood and glass breakage

Annual premium: from 241 CHF per 50'000 CHF insured value with an excess of approx. 200 CHF.

Third party risks (family)

Annual premium: from 180 CHF to cover up to 3'000'000 CHF with an excess of approx. 200 CHF for items in your safekeeping.

HOUSEHOLD EXPENDITURES

N.B. Persons living in Switzerland who make purchases in France for more than 183 Euros are entitled to the reimbursement of the French VAT.

FOOD

Supermarket prices

Bread	from	2,00 CHF
Sugar		1,50 CHF / kg
Fresh milk		1,55 CHF / litre
Coffee		2,80 CHF / 250 gr.
Beefsteak		33,00 CHF / kg
Pork		29,00 CHF / kg
Chicken		8,10 CHF / kg
Rice		2,00 CHF / kg
Potatoes		1,00 CHF / kg

MEALS IN RESTAURANTS (Service included)

At CERN from 7,80 CHF

Set-lunch around CERN	15,00 CHF
Three-course meal in town	40,00 CHF

LAUNDRY

1 sheet (washed, dried and ironed):	approx 5,00 CHF
1 shirt (washed, dried and ironed):	5,50 CHF

CLEANING LADY

For a person without qualifications	from 20,00 CHF per hour
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CHILD-MINDING AND SCHOOLS

CHILDMINDING FACILITIES

Baby-sitter:	from 13 CHF per hour (14 CHF during the day),
Play-school:	for example, the play-school on the CERN site costs 180 CHF per child for 10 afternoons (20 CHF per afternoon),
All-day crèche:	5 days per week, all day, cost is calculated depending on the parents' income. In the crèche at Meyrin, for International Civil Servants, the cost is calculated as approx. 10% of the monthly gross salary plus 30%.

SCHOOLS

The **Geneva State schools** are free of charge and are open to all children whose parents or guardians are residents in the Canton of Geneva.

For **post-compulsory secondary education**, a tax per semester of 540 CHF is payable for students whose parents or guardians are not resident in the Canton of Geneva or who are international civil servants.

The tax per semester at the University of Geneva is 500 CHF, for residents in and outside the Canton of Geneva.

Examples of private schools:

- CERN nursery school (prices for Sept. 2002):
570 CHF per month (for 5 half days)

1140 CHF per month (for 5 full days without lunch)

- Meyrin nursery school: 110 CHF per month (for 5 half days)
- International School:
- *Day school primary section:*
from 16.430 CHF to 17.130 CHF per year
- *Day school secondary section:*
from 19.430 CHF to 20.915 CHF per year

MEDICAL EXPENSES

Doctor's consultation fee: from 90 CHF

Dentist: filling from 100 CHF

One day in hospital: from 1150 to 1300 CHF in a public ward of the Hôpital Cantonal, (depending on the country of residence).

TRANSPORT

PRIVATE VEHICLE

Petrol prices:	unleaded petrol 98:	from 1,30 CHF /litre
	unleaded petrol 95:	from 1,24 CHF/litre
	diesel petrol:	from 1,31 CHF /litre

Insurance:

Third party risks: basic premium from 1000 CHF to 1900 CHF/year

(+ 5% "timbre fédéral")

Comprehensive insurance: from 1800 to 5500 CHF per year, (+ 5% "timbre féd.")

(Casco)

with a 500 CHF excess to be deducted

Private parking space: from 80 CHF per month

Garage: from 150 CHF per month

PUBLIC TRANSPORT

Urban zone 1 hour ticket (with transfer): 2,20 CHF

Day ticket (urban zone): 6,00 CHF

Day ticket (urban and out of town zones): 12,00 CHF

Fare CERN - Geneva (Cornavin station): 2,20 CHF

Season-ticket (per month)

"Azur" (school children) 35,00 CHF

"Orange" (adults) 70,00 CHF

Information source: *Transports publics genevois*. Web: <http://www.tpg.ch/>

TAXIS

Basic rate: 6,30 CHF

Rate: in and out of town (*daytime*): 2,90 CHF / km

in and out of town: 3,50 CHF / km

(*at night/Sundays/Bank Holidays*)

Cornavin station to CERN: approx. 37 CHF

Cointrin airport to CERN:

approx. 26 CHF

N.B. Tariffs may vary slightly according to the taxi company; time (day or night); season; the amount of luggage and the density of traffic.

PAYS DE GEX / FRANCE

RENT AND VARIOUS CHARGES FOR A FLAT

RENT (without charges)	Unfurnished (in Euros per month)	Furnished
Studio flat	380 - 550	400 - 600
F2 (1 bedroom)	500 - 800	500 - 900
F3 (2 bedrooms)	600 - 1000	700 - 1200
F4 (3 bedrooms)	700 - 1250	950 - 1400

Charges are often included in the rent for studios and other small furnished properties.

Please contact the *CERN Housing Service*:

Tel: (00 41) (0)22 767. 41.55

Email: housing.service@cern.ch

Web: <http://cern.web.cern.ch/CERN/housing/Housing.html>

ELECTRICITY

Costs include a fixed amount (subscription) and a variable amount (according to consumption).

9 different types of subscription and 3 different tariffs for consumption are offered.

Example:

A subscription based on 6 kWh is suitable for facilities including a refrigerator, washing-machine, TV, hot-water boiler and small household appliances but not including electric heating.

Basic subscription 6 kWh = 50.4 € /year (without tax) (5.5% VAT charge to add)

Consumption 7.87 cts/kWh (without tax) (19,6 % VAT to add + local taxes)

Information source: *Electricité de France*. Web: <http://www.edf.fr/>

GAS

Natural gas: More and more communes are using natural gas. Costs include a fixed amount (subscription) and a variable amount (consumption). There are 4 different options available.

Subscription: Cooking and hot water 112 €

Consumption: 32,48cts. per kWh (taxes included)

Bottled gas: A refill costs approximately 22.30 € and should last about 6 months for a couple without children.

Information source: *Gaz de France*

Web: <http://www.gazdefrance.com/>

TELEPHONE

Telephone rental: 46.12 € for a new line

Telephone connection: 30.75 € for a line that had already been installed for at least 6 months

Main subscription: 12.55 € / month all taxes included

Local call rate(peak period): 9.1 cts for the first minute, then 3.4 cts/minute

Web: <http://www.francetelecom.fr/>

France Telecom as well as other operators offer different set prices for fixed and mobile phones, as well as for Internet access.

For a comparison: <http://www.comparatel.fr/>

RADIO, TELEVISION

Radio/TV licence 2002: 116.50 € / per year for a colour TV
74.31 € / per year for black and white TV

Information source: Centre regional de la redevance de l'audio-visuel, Lyon.

Tel: 04.78.95.73.00

INSURANCE Comprehensive household policy

People working at CERN can take out insurance with MAIF. The MAIF offers house insurance covering (theft, fire, floods, glass breakages, civil liability) but also extends to everyday risks for the whole of the family of the insured.

The annual premium is worked out in accordance with the value of the property (by range of estimated value). Young people (< 26 years) benefit from a reduction.

Example: 190 €/year for a person of + 26 years, tenant, with a property of between 26000 and 52000 € (Excess of 125 € in some cases)

Web: <http://www.maif.fr/>

HOUSEHOLD EXPENDITURES

FOOD

Supermarket prices

Bread:	from	0.6 €
Sugar:		1.1 € / kg.
Milk (fresh):		0.76 € / litre
Coffee:		1.6 € / 250 gr.
Beefsteak:		9.15 € / kg.
Pork:		5.95 € / kg.
Chicken		7.62 € /kg.
Rice:		1.37 € / kg.
Potatoes:		0.76 € / kg.

MEALS IN RESTAURANTS

At CERN	from	4.50 €
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Set lunch around CERN	10 €
3-course meal in town	20 €

LAUNDRY

1 sheet (washed, dried and ironed)	from	2,50 €
1 shirt (washed, dried and ironed)		3,90 €

CLEANING WOMAN

Approximately 10 € per hour + social security contributions.

CHILD-MINDING AND SCHOOLS

Baby-sitter: From 6 € per hour (student tariff of the CROUS 4,73 €).

Schools: French State Schools are free of charge.

International Education

A fee is charged for the teaching of "national" programmes at the International College and Lycée in Ferney-Voltaire.

Example of a private catholic school - Institution - Jeanne d'Arc (in Gex): depending on the income of the parents.

MEDICAL EXPENSES

Doctor's consultation fee:	from 18 € (general practitioner)
Tooth filling:	from 21,20 € (average size) / 35,40 € (large size)
Hospital daily rate:	between 365 € and 953 € (Saint Julien Hospital)

PRIVATE CAR

<i>Petrol prices:</i>		
	super unleaded (98 octane):	approx. 0.95 €/litre
	super unleaded (95 octane):	approx. 0.92 €/litre
	super leaded	approx. 1.05 €/litre
	gasoil	approx. 0.80 €/litre

Insurance:

- Depending on the history of the insurer, a « bonus-malus » is granted, ranging from 0.50 to 3.80. This rate plays a very important role concerning the premium to be paid, since the basic premium is multiplied by this figure.
- People working at CERN take out insurance with the MAIF, who offer 4 different types of cover.
- Individual calculations can be carried out on-line at <http://www.maif.fr>

Examples for a driver aged between 25 and 30 years, with a bonus of 0.75:

	Civil Liability (Minimal cover)	All risks (with excess)
VW Polo 5cv	200 € / year	380 € / year with 170 € excess
Renault Laguna 1.8, 7cv	265 € / year	705 € / year with 280 € excess

TRANSPORTS PUBLICS

Bus Bellegarde – Saint-Genis – Gex – Divonne
 Train RER Bellegarde – Pougny – Satigny – Geneve Cointrin
 Bus Y Val Thoiry – Saint-Genis – CERN – Blandonnet
 F Gex – Ferney-Voltaire – Geneve Cornavin
 K Pougny-Gare – Onex Les Esserts

Web: <http://www.tpg.ch/>

Economics focus | McCurrencies

Hamburgers should be an essential part of every economist's diet

THE past year has been one to relish for fans of burgeronomics. Last April *The Economist's* Big Mac index flashed a strong sell sign for the dollar: it was more overvalued than at any time in the index's history. The dollar has since flipped, falling by 12% in trade-weighted terms.

Invented in 1986 as a light-hearted guide to whether currencies are at their "correct" level, burgeronomics is based on the theory of purchasing-power parity (PPP). This says that, in the long run, exchange rates should move toward rates that would equalise the prices of an identical basket of goods and services in any two countries. To put it simply: a dollar should buy the same everywhere. Our basket is a McDonald's Big Mac, produced locally to roughly the same recipe in 118 countries. The Big Mac PPP is the exchange rate that would leave burgers costing the same as in America. Comparing the PPP with the actual rate is one test of whether a currency is undervalued or overvalued.

The first column of the table shows local-currency prices of a Big Mac. The second converts them into dollars. The average price of a Big Mac in four American cities is \$2.71. The cheapest burgers are in China (\$1.20); the dearest are in Switzerland (\$4.52). In other words, the yuan is the most undervalued currency, the Swiss franc the most overvalued. The third column calculates Big Mac PPPs. Dividing the local Chinese price by the American price gives a dollar PPP of 3.65 yuan. The actual exchange rate is 8.28 yuan, implying that the Chinese currency is undervalued by 56% against the dollar. The average price of a Big Mac in the euro area is now exactly the same as in America. This implies that the euro's PPP is exactly \$1, so at its current rate of \$1.10 the euro is 10% overvalued. The British, Swedish and Danish currencies are still significantly overvalued against the euro.

Among rich economies, the most undervalued currency is the Australian dollar. The Aussie dollar is still 31% below PPP against its American counterpart: its rise over the past year has been largely offset by a fall in the relative price of burgers in Australia. Many emerging-market currencies are undervalued against the dollar by 30-50%. One exception is the South Korean won, which is exactly at its PPP, implying that it is overvalued against other emerging-market currencies.

Many readers complain that burgeronomics is hard to swallow. We admit it is flawed: Big Macs are not traded across borders as the PPP theory demands, and prices are distorted by taxes, tariffs, different profit margins and differences in the cost of non-tradables, such as rents. It was never intended as a precise predictor of currency movements, but as a tool to make exchange-rate theory more digestible. Yet in the early 1990s, just before the crisis in Europe's exchange-rate mechanism, it signalled that several currencies, including sterling, were markedly overvalued against the D-mark. It also predicted the fall in the euro after its launch in 1999.

Academic economists are taking burgeronomics more seriously, chewing over the Big Mac index in almost a dozen studies. Now a whole book has been written about the index* by Li Lian Ong, of the International Monetary Fund. She says it has been surprisingly accurate in tracking exchange rates in the long term. But there are some persistent deviations from PPP. In particular, emerging-market currencies are consistently undervalued.

Differences in productivity are one explanation of this. Rich

countries have higher productivity than poor countries, but their advantage tends to be smaller in non-tradable goods and services than in tradables. Because wages are the same in both sectors, non-tradables are cheaper in poorer countries. Therefore, if currencies are determined by the relative prices of tradables, but PPP is calculated from a basket that includes non-tradables, such as the Big Mac, the currencies of poor countries will always look undervalued. Ms Ong finds that currency deviations from PPP are indeed related to productivity differences relative to America. After adjusting for this, she finds that the Big Mac index performs better in tracking exchange rates.

The Big Mac index suggests that the dollar is no longer overvalued against the euro. But having overshot PPP, the dollar may well now undershoot, because America's huge current-account deficit is becoming harder to finance. Without stronger domestic demand in Japan and Europe to help trim the deficit, the dollar will have to take more of the strain. What are this year's other hot tips? The Australian dollar is likely to see the biggest gain. The pound will fall further against the euro. And China will come under increasing pressure to revalue the yuan.

The hamburger standard

	Big Mac prices		Implied	Actual dollar	Under (-)/over (+)
	In local	In	PPP* of	exchange rate	valuation against
	currency	dollars	the dollar	April 22nd	the dollar, %
United States ¹	\$2.71	2.71			
Argentina	Peso 4.10	1.40	1.51	2.88	-47
Australia	A\$3.00	1.80	3.31	1.61	-31
Brazil	Real 4.55	1.44	1.88	3.07	-45
Brunei	B\$1.89	1.08	1.30	1.581	+15
Canada	C\$3.20	2.17	1.88	1.45	-18
Chile	Peso 1,400	1.45	517	716	-28
China	Yuan 9.90	1.20	3.65	8.28	-56
Czech Rep	Koruna 56.57	1.91	20.9	28.9	-28
Denmark	DKr27.75	3.99	19.2	6.78	+51
Egypt	Pound 8.00	1.38	2.95	5.92	-50
Euro area	€2.71	2.69	1.00 ²	1.10 ³	+10
Hong Kong	HK\$11.50	1.40	4.24	7.80	-46
Hungary	Forint 490	2.14	181	224	-19
Indonesia	Rupiah 16,100	1.81	5,941	8,740	-32
Japan	¥962	2.18	96.7	120	-19
Malaysia	M\$5.04	1.33	1.86	3.80	-51
Mexico	Peso 23.00	2.14	8.49	10.33	-29
New Zealand	N\$3.15	2.15	1.46	1.78	-18
Peru	New Sol 7.90	2.28	2.92	3.46	-18
Philippines	Peso 65.00	1.23	24.0	52.5	-54
Poland	Zloty 6.30	1.56	2.32	3.89	-40
Russia	Rubler 41.00	1.31	15.1	31.1	-51
Singapore	S\$3.30	1.89	1.22	1.78	-31
South Africa	Rand 13.95	1.74	5.15	7.56	-32
South Korea	Won 3,300	2.63	1,218	1,220	0%
Sweden	Sk\$90.00	3.50	11.1	8.34	+33
Switzerland	SFr6.30	4.52	2.32	1.37	+59
Taiwan	NT\$70.00	2.01	25.8	34.8	-26
Thailand	Baht 59.00	1.37	21.8	42.7	-49
Turkey	Lira 1,750,000	2.28	1,383,764	1,600,500	-14
Venezuela	Bolivar 3,700	2.32	1,365	1,588	-15

* Purchasing-power parity: local price divided by price in United States. ¹ Average of New York, Chicago, San Francisco and Atlanta. ² Dollars per pound. ³ Dollars per euro.

* "The Big Mac Index: Applications of Purchasing Power Parity". Published by Palgrave Macmillan, 2003.

APPENDIX D:

Relocation Benefits Guide

Benefit	U.S. Institute Employee				On-site Employee
	Brief Visit (< 1 month)	Short Term Visit (1-3 months)	Medium Term Visit (3 months - 1 year)	Long Term Visit (> 1 year)	
Base Salary	---	---	---	Negotiated	Subsistence allowance paid in Swiss francs Negotiated; consistent with CERN practice
Housing (typical arrangement)	Paid (CERN Hostel or Hotel)	Paid (CERN Hostel)	Difference paid (Off-site apartment)	COLA †	---
Local Transportation (typical arrangement)	Paid (Shared rental car)	Paid (Shared rental car)	Paid (Leased car)	COLA †	---
Food Allowance (example rate *)	Reasonable per diem (\$80 / day)	Lower per diem (\$60 / day)	Still lower per diem (\$50 / day)	COLA †	---
Health Insurance	Employee benefit	Paid supplemental ins (If needed)	Paid supplemental ins (If needed)	Negotiated	cost added to base ** (~1000 CHF/month)
Disability Insurance	Employee benefit	Employee benefit	Employee benefit	Employee benefit	paid (in addition to base)
Retirement Contribution	Employee benefit	Employee benefit	Employee benefit	Employee benefit	~10% of base
Children's Schools (typical arrangement)	---	---	Negotiated (Public schools)	Negotiated (Public schools)	---
Tax Matters	Not an issue	Likely not an issue	May be an issue	Likely an issue	Likely an issue

† COLA (cost of living allowance): support of a stated fraction of USD salary at a given CHF/USD exchange rate and/or fixed supplemental allowance.

* The example per diem rates are those paid at Fermilab as of January 2004.

** See, for example, http://humanresources.web.cern.ch/HumanResources/external/soc/health_insurance/.

APPENDIX E:

Swiss Franc Exchange Rate (monthly average)

