

A REVIEW OF THE  
INTERNATIONAL MONETARY ENVIRONMENT  
AND  
ITS RELEVANCE TO THE AIRLINE INDUSTRY

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## PREFACE

THE PURPOSE OF THIS STUDY IS TO SUPPORT McDONNELL DOUGLAS CORPORATE ENVIRONMENTAL PLAN BY PROVIDING A REVIEW OF THE COMPLEXITIES OF THE U.S. BALANCE OF PAYMENTS IN THE CONTEXT OF INTERNATIONAL TRADE AND MONETARY RELATIONS. THE MAJOR AREAS OF FOCUS WILL BE: A REVIEW OF THE INSTITUTIONAL FRAMEWORK FOR CONDUCTING INTERNATIONAL MONETARY RELATIONS, THE ROLE OF THE U.S. DOLLAR IN THE WORLD'S COMMERCIAL ACTIVITIES, AN ANALYSIS OF THE U.S. BALANCE OF PAYMENTS OUTLOOK, AND THE EFFECTS OF THE RECENT DEVALUATION UPON THE AIRLINE INDUSTRY.

AS SUCH, THE PRESENT DOCUMENT IS PART OF A COMPREHENSIVE SERIES OF MONOGRAPHS WHICH BRINGS TOGETHER VARIOUS ECONOMIC STUDIES MADE WITHIN THE FRAMEWORK OF THE MDC ENVIRONMENTAL PLAN. THIS SERIES COMPRISES IN ADDITION TO THIS STUDY:

- "SHORT-TERM OUTLOOK FOR THE U.S. ECONOMY AND ITS IMPACT ON THE MDC ENVIRONMENT".
- WHARTON BASED STUDY "LONG-TERM PROSPECTS OF THE U.S. ECONOMY".
- "LONG-TERM FORECASTING MODELS OF THE U.S. DOMESTIC AND INTERNATIONAL TRAFFIC AND FORECASTS TO 1980" PLUS A STUDY: "LONG-TERM FORECASTS OF THE SCHEDULED DOMESTIC OPERATIONS OF INDIVIDUAL U.S. CARRIERS".
- "THE LONG-TERM OUTLOOK OF THE EARB AIRLINES TRAFFIC".

THIS DOCUMENT WILL BE CONTINUALLY UPDATED BY A SERIES OF MEMOS AS NEW INFORMATION REGARDING THE INTERNATIONAL MONETARY ENVIRONMENT BECOMES AVAILABLE. IT IS HOPED THAT THIS DOCUMENT AND ITS SERIES OF UPDATES CAN SHED SOME LIGHT ON A COMPLEX AND DYNAMIC AREA OF ECONOMIC INVESTIGATION AND, MOST IMPORTANTLY, ASSIST MDC MANAGEMENT IN CORPORATE STRATEGY PLANNING.

## SUMMARY AND CONCLUSIONS

### SUMMARY

1971 WAS A MAJOR TURNING POINT IN WHAT IS GOING TO BE THE SLOW BUT INEVITABLE DEMISE OF THE BRETTON WOODS' SYSTEM, ESTABLISHED IN 1944. THIS STUDY LOOKED AT THE FUNCTIONING OF THIS SYSTEM AND PARTICULARLY ITS EFFECTS ON INTERNATIONAL LIQUIDITIES AND THE U.S. BALANCE OF PAYMENTS.

IN 1971 THE DEFICIT ON OFFICIAL BALANCES EXCEEDED TWENTY-NINE BILLION DOLLARS AND WAS SYMPTOMATIC OF THE FAILURE OF A SYSTEM OF ARTIFICIALLY CONTRIVED EXCHANGE RATES TO ADEQUATELY MEET THE DYNAMIC REQUIREMENTS OF THE INTERNATIONAL MONETARY SYSTEM.

WHILE THE FLOW OF U.S. DOLLARS, UNDER THE BRETTON WOODS' AGREEMENT, HAS HELPED EXPAND INTERNATIONAL LIQUIDITY AND WAS THUS INSTRUMENTAL IN CATALYSING A LARGE PERCENTAGE OF POST WORLD WAR II INTERNATIONAL TRADE AND FINANCIAL FLOWS, THE OBVIOUS DEPRECIATION OF THE DOLLAR IN MORE RECENT YEARS PLACED CONSIDERABLE STRESS ON INTERNATIONAL MONETARY DEALINGS. THESE STRESSES IN 1971 LED TO THE TERMINATION OF THE OFFICIAL U.S. DOLLAR GOLD CONVERTIBILITY ON 15 AUGUST 1971 AND THE GENERAL CURRENCY REALIGNMENT OF 18 DECEMBER 1971, REACHED AT THE SMITHSONIAN INSTITUTE IN WASHINGTON D.C.

IT WOULD APPEAR THAT IN 1972 THERE WILL BE A SLIGHT REVERSAL IN THE BALANCE OF PAYMENTS DEFICIT, LARGELY DUE TO THE "TEMPORARY" STABILIZATION OF THE EXCHANGE RATES AND SUBSTANTIAL REDUCTION IN SPECULATIVE U.S. CAPITAL OUTFLOWS THAT CHARACTERIZED 1971.

CONCLUSIONS

THE MOST OBVIOUS THREE CONCLUSIONS THAT CAN BE DRAWN FROM THIS STUDY ARE:

*Don't know*

1. THE CURRENT INSTITUTIONAL STRUCTURE FOR CONDUCTING INTERNATIONAL MONETARY TRANSACTIONS WILL UNDERGO FURTHER MODIFICATIONS. IT IS FELT THAT THERE WILL BE RECURRING CRISIS SITUATIONS, AS PREVAILED IN 1971, AND THAT A MORE MARKET ORIENTED APPROACH TO ESTABLISHING MULTINATIONAL EXCHANGE RATES WILL EMERGE. THIS WITH FURTHER ADVANCES IN INTERNATIONAL COMMUNICATION TECHNOLOGY, AND HENCE THE LOWERING OF INFORMATION COSTS, IT IS ENVISAGED THAT THE WORLD WILL RAPIDLY MOVE TOWARD A SYSTEM OF FREELY FLOATING EXCHANGE RATES. SUCH A SITUATION WOULD FREE NATIONS IN FOREGOING THEIR OWN DOMESTIC ECONOMIC GOALS IN THE INTEREST OF EXCHANGE RATE STABILITY, AND ELIMINATE INTERNATIONAL BALANCE OF PAYMENTS DISEQUILIBRIA.

*ALWAYS TEND TO BE IN A DEFICIT*

2. THE U.S. WILL CONTINUE TO INCUR A BALANCE OF PAYMENTS DEFICIT, ASSUMING NO FURTHER DRASTIC DEVALUATION OR CHANGE IN THE CURRENT ENVIRONMENT, INTO THE FORESEEABLE FUTURE. BY ADHERING TO THE REMNANTS OF THE BRETTON WOODS' SYSTEM, EVEN AS MODIFIED BY THE SMITHSONIAN AGREEMENT, THE UNITED STATES WILL FACE CONTINUAL PRESSURE UPON ITS INTERNATIONAL CURRENCY EXCHANGE VALUATION AND THUS CONTINUE TO HAVE ITS DOMESTIC POLICY SHACKLED TO ITS EFFORTS TO MAINTAIN A SYSTEM (BRETTON WOODS) THAT HAS SHOWN CONSIDERABLE INADEQUACIES.

*... IN A DEFICIT ...*

3. DUE TO DEVALUATION, THE U.S. WILL HAVE GREATER COMPARATIVE COST ADVANTAGE IN THE PRODUCTION OF AIRCRAFT, ESPECIALLY IN THE SHORT-RUN. HOWEVER, GIVEN THAT THE U.S. FACES COMPETITION FROM NATIONS WHO SUBSIDIZE THEIR AEROSPACE INDUSTRIES, IT IS DOUBTFUL THAT OUR PRIVATELY OWNED AIRFRAME MANUFACTURERS WILL BE "ALLOWED" TO MAINTAIN THIS COMPETITIVE EDGE BY PRIVATE MEANS. IN THIS CONTEXT WE PREDICT A GREATER PARTICIPATION BY THE U.S. GOVERNMENT IN THE DEVELOPMENT OF COMMERCIAL AEROSPACE PRODUCTS ESPECIALLY FOR EXPORT. FURTHER, THE "TOTAL COST" (FARES AND LAND EXPENSES) OF TRIPS TO MOST FOREIGN DESTINATIONS HAS BECOME MORE EXPENSIVE FOR U.S. RESIDENTS. CONVERSELY, THE COST OF TRIPS BY NON-U.S. RESIDENTS TO THE U.S. HAS DECREASED AND THE RELATIVE INTRA-U.S. TRAVEL FOR AMERICAN RESIDENTS WILL BECOME COMPARATIVELY LESS EXPENSIVE. FOR THIS REASON IT IS FORECAST THAT THERE WILL BE A REALLOCATION IN THE DISTRIBUTION OF INTERNATIONAL PASSENGER FLOWS.



## OUTLINE

THIS PAPER WILL REVIEW THE INTERNATIONAL MONETARY ENVIRONMENT AND ITS RELEVANCE TO THE AIRLINE INDUSTRY. THE PAPER WILL BE DIVIDED INTO FIVE MAIN SECTIONS OR CHAPTERS.

- CHAPTER 1 WILL REVIEW THE INSTITUTIONAL STRUCTURE FOR CONDUCTING INTERNATIONAL MONETARY TRANSACTIONS. PARTICULAR EMPHASIS IN THIS CHAPTER WILL BE PLACED ON THE ROLE OF THE U.S. DOLLAR IN WORLD MONETARY AFFAIRS.
- CHAPTER 2 REVIEWS THE DYNAMICS OF THE U.S. BALANCE OF PAYMENTS TRANSACTIONS DURING 1971. THIS CHAPTER ANALYZES THE MOST SIGNIFICANT EVENTS OF 1971 THAT PRECIPITATED THE GENERAL CURRENCY REALIGNMENT, AND SET THE STAGE FOR A NEW ORDER IN INTERNATIONAL MONETARY DEALINGS.
- CHAPTER 3 CONCERNS ITSELF WITH THE PROSPECTS FOR THE BALANCE OF PAYMENTS IN 1972. THE APPROACH USED WAS TO FORECAST THE DIRECTION AND MAGNITUDE OF THE MAIN ELEMENTS THAT ENTER INTO THE U.S. BALANCE OF PAYMENTS CONSTRUCT.
- CHAPTER 4 REVIEWS THE POSSIBLE EFFECTS OF DEVALUATION UPON AIRLINE TRAFFIC FLOWS AND REVENUES. THE METHODOLOGY UTILIZED IN THIS ANALYSIS WAS BASED ON THE ELASTICITY CONCEPT (TRAVEL DEMAND WITH RESPECT TO PRICE) TO ESTIMATE THE EFFECT OF THE DEVALUATION ON BOTH DOMESTIC AND FOREIGN PASSENGER AND REVENUE PATTERNS.
- CHAPTER 5 DISCUSSES SOME OF THE IMMEDIATE EFFECTS OF DEVALUATION IN THE AIRFRAME MANUFACTURING INDUSTRY. IN THIS CHAPTER THE A300-B PROGRAM IS ANALYZED IN THE CONTEXT OF THE SERIES OF CURRENCY REALIGNMENTS THAT HAVE TAKEN PLACE SINCE 1969 AND THEIR IMPACT ON THE PROGRAM.

# 1. INSTITUTIONAL STRUCTURE

## 1.1. INTRODUCTION

THIS SECTION WILL DESCRIBE THE PREVAILING INTERNATIONAL MONETARY SYSTEM. HISTORICALLY THE INTERNATIONAL COMMUNITY OF TRADING NATIONS HAS PLACED ITS FAITH IN DEVELOPING AN INSTITUTIONAL FRAMEWORK FOR CONDUCTING INTERNATIONAL MONETARY RELATIONS RATHER THAN PERMITTING A FREE MARKET EXCHANGE RATE SYSTEM TO EMERGE. THE RECENT INTERNATIONAL MONETARY CRISIS APPEARS TO HAVE ACCELERATED THIS DRIVE TO FORMALLY RESTRUCTURE THE SYSTEM. THE CONTINUING ADHERENCE TO AN INSTITUTIONALIZED SYSTEM HAS PREVAILED IN SPITE OF RECURRING INTERNATIONAL MONETARY CRISES EVEN WHEN SUBSTANTIAL EVIDENCE EXISTS TO SUGGEST THAT A SYSTEM OF FIXED (STRUCTURED) EXCHANGE RATES HAS ACTED AS THE "BACILLI" FOR TRANSMITTING BUSINESS FLUCTUATIONS BETWEEN NATIONS.

## 1.2. INTERNATIONAL MONETARY FUND

### 1.2.1. IMF IN CONTEXT OF INSTITUTIONAL FRAMEWORK

AT THE CORE OF THE SYSTEM, WHICH IS OFTEN REFERRED TO AS THE "BRETTON WOODS SYSTEM," IS THE IMF (INTERNATIONAL MONETARY FUND). THE IMF RESULTED FROM LENGTHY DISCUSSIONS OF SEPARATE AMERICAN, BRITISH, CANADIAN, AND FRENCH PROPOSALS DRAFTED DURING WORLD WAR II. THE TWO MAJOR EMERGING RIVAL PLANS WERE THE BRITISH AND AMERICAN. THEY DIFFERED IN THAT THE BRITISH PLAN PUT MORE EMPHASIS ON NATIONAL MONETARY INDEPENDENCE WHILE THE AMERICAN PLAN PLACED EMPHASIS ON EXCHANGE RATE STABILITY, A SYSTEM SOMEWHAT REMINISCENT OF A RETURN TO THE GOLD STANDARD. THE COMPROMISE FINALLY REACHED CLEARLY RESEMBLED THE AMERICAN PROPOSAL MORE THAN THE BRITISH. WHILE THE IMF IS THE DOMINANT FORCE IN THIS SYSTEM, OTHER SIGNIFICANT ELEMENTS INTERACT TO PRODUCE A COMPLEX DYNAMIC CONSTRUCT FOR SETTLING INTERNATIONAL ACCOUNTS.

SIGNIFICANT AMONG THESE ECONOMIC UNITS ARE THE WORLD BANK, INDIVIDUAL CENTRAL BANKING SYSTEMS, AND THE DEVELOPMENT OF OPEN (SPOT AND FORWARD) MARKETS FOR FOREIGN CURRENCIES AND GOLD. EACH OF THESE MAJOR COMPONENTS OF THE INTERNATIONAL MONETARY SYSTEM WILL BE DISCUSSED WITHIN THE INSTITUTIONAL CONTEXT.

### 1.2.2 PURPOSE OF IMF

ACCORDING TO ITS ORIGINAL ARTICLES OF AGREEMENT, THE PURPOSES OF THE INTERNATIONAL MONETARY FUND ARE TO PROMOTE INTERNATIONAL TRADE, WITH THE INTENTION OF PROMOTING HIGH LEVELS OF EMPLOYMENT AND REAL INCOME AMONG NATIONS, THE STABILIZATION OF EXCHANGE RATES, AND THE AVOIDANCE OF COMPETITIVE DEPRECIATION. IN ADDITION, THE CHARTER OF THE IMF DEMANDS THAT THE FUND CONCERN ITSELF WITH THE DEVELOPMENT OF A MULTINATIONAL SYSTEM OF CURRENT INTERNATIONAL PAYMENTS AND THE ELIMINATION OF EXCHANGE CONTROLS OVER CURRENT TRANSACTIONS. A FURTHER GOAL OF THE IMF AS ORIGINALLY CONCEIVED WAS TO CREATE ECONOMIC CONFIDENCE AMONG MEMBER NATIONS AND TO GIVE THEM THE OPPORTUNITY TO EXPEDITIOUSLY CORRECT BALANCE OF PAYMENTS MALADJUSTMENTS, WHILE AVOIDING THOSE UNILATERAL ECONOMIC MEASURES THAT WOULD IMPINGE ON OTHER MEMBERS' NATIONAL AND INTERNATIONAL PROSPERITY. THE ACHIEVEMENT OF THESE GOALS UNDER THE ORIGINAL CHARTER OF THE IMF TENDED TO DE-EMPHASIZE THE MARKET NATURE OF THE SYSTEM.

### 1.2.3. CRITIQUE OF PURPOSES

THE PURPOSES, AS EXPRESSED ABOVE, ARE VAGUE. MORE SPECIFICALLY, THE FUND PROVIDES INTERNATIONAL DRAWING RIGHTS (IN THIS CASE LOANS) ON BASIS OF QUOTAS, TO ASSIST ITS MEMBERS MEET TEMPORARY DEFICITS WITHOUT HAVING TO RESORT TO SUCH ACTIONS AS EXCHANGE CONTROLS, EXCHANGE RATE ADJUSTMENTS, OR HARMFUL DEVALUATIONS.

UNDER THE ORIGINAL CHARTER OF THE IMF, MEMBER NATIONS ARE SUPPOSED TO "LIVE WITH" OR "RIDE OUT" PURELY TEMPORARY DEFICITS. MEMBER NATIONS ARE NOT EXPECTED TO SUPPLEMENT THEIR OWN RESERVES, BY BORROWING FROM THE FUND, TO CORRECT CHRONIC IMBALANCES.

IN THIS CONTEXT, WHEN A COUNTRY IS FACED WITH A HOPELESSLY FUNDAMENTAL DISEQUILIBRIUM DUE TO A DEFICIT IN ITS INTERNATIONAL TRANSACTIONS, THE FUND MAY REQUIRE THE COUNTRY TO REMEDY THIS BY DEVALUING ITS CURRENCY. SYMMETRICALLY, AN OPPOSITE SITUATION OF "FUNDAMENTAL" BALANCE OF PAYMENTS SURPLUS WOULD POSSIBLY CALL FOR THE FUND TO INSIST ON AN UPWARD REVALUATION.

#### 1.2.4 IMF PROCEDURE

UNDER THE ORIGINAL ARTICLES OF AGREEMENT ON EXCHANGE RATES THE BRETTON WOODS SYSTEM ENVISAGED THAT EACH IMF MEMBER GOVERNMENT WOULD ESTABLISH A FIXED PAR VALUE FOR ITS CURRENCY AND MAINTAIN THIS CENTRAL VALUE IN THE EXCHANGE MARKETS WITH A PLUS OR MINUS ONE PERCENT VARIATION. THIS PAR VALUE WAS SET WITH RESPECT TO THE U.S. DOLLAR. THE U.S. WOULD IN TURN MAINTAIN THE PRICE OF GOLD AT \$35 PER OUNCE. FROM THE INCEPTION OF BRETTON WOODS THROUGH 1968, THE U.S., TOGETHER WITH SIX OTHER MEMBER NATIONS OF THE "GOLD POOL," MAINTAINED THIS DOLLAR GOLD CONVERTIBILITY RATE OF \$35.00 PER OUNCE. THIS SYSTEM WAS MADE OPERATIONAL BY THE DIRECT MARKET INTERVENTION OF THE BANK OF ENGLAND WITH THE COOPERATION OF THE OTHER MEMBERS OF THE "POOL."

FOR EXAMPLE, THE BANK OF ENGLAND WOULD INCREASE ITS GOLD HOLDINGS WHILE THE OTHER MEMBERS WOULD SHARE IN THESE PURCHASES BY BUYING AN AGREED UPON PERCENTAGE OF THE ACQUIRED

GOLD FROM THE BANK OF ENGLAND WITH AMERICAN DOLLARS. CON-  
VERSELY, WHEN THE BANK OF ENGLAND INTERVENED BY SELLING  
GOLD IN THE OPEN MARKET, THE OTHER MEMBERS OF THE "GOLD CLUB"  
WOULD ASSIST BY SELLING PART OF THEIR MONETARY GOLD TO THE  
BANK OF ENGLAND FOR U.S. DOLLARS. THIS SYSTEM ULTIMATELY  
RESTED UPON THE ABILITY OF THE U.S. TO MAINTAIN "REAL" GOLD  
CONVERTIBILITY AT THE ESTABLISHED RATE. THE CONDUCTING OF  
THE DAY-TO-DAY ACTIVITIES BY THE BANK OF ENGLAND, RATHER THAN  
THE U.S. FEDERAL RESERVE SYSTEM WAS MOST PROBABLY AN OFF-  
SHOOT OF THE "FED'S" HISTORICAL RELUCTANCE TO BECOME INVOLVED  
IN THESE TYPES OF INTERNATIONAL OPEN MARKET OPERATIONS.

#### 1.2.5. LOAN OPERATIONS OF THE FUND

TECHNICALLY THE LOAN OPERATIONS OF THE FUND, FOR SHORT RUN  
BALANCE OF PAYMENTS PROBLEMS, CONSIST OF SELLING FOREIGN  
CURRENCIES. THE FUND REQUIRES THAT EACH MEMBER MUST CON-  
TRIBUTE TO THE IMF A CAPITAL SUM REFLECTING ITS ECONOMIC  
POWER\*. WHILE A PORTION OF THIS MUST BE IN GOLD, THE BULK IS  
IN ITS HOME CURRENCY COMMONLY IN THE FORM OF BANK DEPOSITS.  
THE UNITED STATES PROVIDED 34 PERCENT AND THE UNITED KINGDOM  
16 PERCENT OF THE INITIAL CAPITAL. TO COMPENSATE THOSE  
NATIONS MAKING A LARGER CONTRIBUTION, ADDITIONAL VOTING POWER  
WAS ASSIGNED THEM IN THE POWER STRUCTURE OF THE FUND.

WITH THE EMERGENCY OF NEW NATIONS, AND VARYING RATES OF  
ECONOMIC GROWTH, THE IMF HAS MODIFIED THE QUOTA ALLOCATION.  
TABLE 1.1, ILLUSTRATES THIS POINT BY SHOWING QUOTA REALLO-  
CATIONS THAT OCCURED ON MAY 1, 1970.

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\*THE DEFINITION OF ECONOMIC POWER APPARENTLY BEING LOOSELY INTERPRETED AND HIGHLY  
SUBJECTIVE.

1.2.6. LOAN MECHANICS

EACH MEMBER NATION IS REQUIRED TO PAY INTO THE FUND ONE FOURTH OF ITS ASSIGNED QUOTA IN GOLD OR U.S. DOLLARS AND THE REMAINING THREE QUARTERS IN ITS NATIONAL CURRENCY. THE IMF THUS HAS ASSETS CONSISTING OF GOLD, DOLLARS AND A HETEROGENEOUS MIX OF VARIOUS NATIONAL CURRENCIES. IN THE EVENT THAT A MEMBER NATION INCURS A DEFICIT IN ITS BALANCE OF PAYMENTS, IT CAN UTILIZE ITS DRAWING RIGHTS TO REQUEST A SUM OF MONEY IN A PARTICULAR CURRENCY. A CASE IN POINT WOULD BE WHERE AUSTRALIA CAN "DRAW" U.S. DOLLARS FROM THE IMF AND THEN USE THEM TO BUY AUSTRALIAN DOLLARS IN THE EXCHANGE MARKET, THEREBY COVERING ITS DEFICIT. WHEN A MEMBER NATION HAS CORRECTED ITS "TEMPORARY" IMBALANCE IT IS EXPECTED TO REVERSE THE TRANSACTION BY USING FOREIGN EXCHANGE TO REPURCHASE THE ADDITIONAL AMOUNTS OF ITS OWN CURRENCY PAID TO THE IMF.

AS HAS BEEN STRESSED BEFORE, THESE LOANS ARE DESIGNED TO BE SHORT TERM IN NATURE, AND THEY ARE DEFINITELY EXPECTED TO BE REPAYED. APPROVAL FOR A MEMBER TO DRAW BEYOND THE FIRST 25 PERCENT OF ITS QUOTA (SLICE) DEPENDS UPON IMF APPROVAL.

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AN INTERESTING DEVELOPMENT IN THE FRAMEWORK OF THE IMF IS THE RECENT INTEREST SHOWN BY THE SOVIET BLOC COUNTRIES AND SWITZERLAND TO JOIN THE IMF. THE RAMIFICATIONS OF THIS POTENTIAL DEVELOPMENT WILL NOT BE CONSIDERED IN THIS TEXT.

TABLE I.1 IMF QUOTAS FISCAL YEAR  
- ENDED, APRIL 30, 1971 -  
(IN MILLIONS OF U.S. DOLLARS)

Member	Quota on May 1, 1970	New Quota	Effective Date of Change	Member	Quota on May 1, 1970	New Quota	Effective Date of Change
Afghanistan	29.00	37.00	Dec. 24, 1970	Laos	10.00 <sup>1</sup>	13.00 <sup>1</sup>	Nov. 27, 1970
Algeria	75.00	130.00	Dec. 21, 1970	Lesotho	3.00 <sup>2</sup>	5.00	Nov. 10, 1970
Argentina	350.00	440.00	Dec. 23, 1970	Liberia	50.00 <sup>3</sup>	29.00	Dec. 18, 1970
Australia	500.00	665.00	Dec. 4, 1970	Libyan Arab Republic	19.00 <sup>4</sup>	24.00 <sup>5</sup>	Nov. 27, 1970
Belgium	422.00	650.00	Dec. 23, 1970	Malagasy Republic	19.00 <sup>6</sup>	26.00	Dec. 1, 1970
Bolivia	29.00	37.00	Nov. 27, 1970	Malawi	11.25	15.00	Nov. 24, 1970
Botswana	3.00	5.00	Dec. 18, 1970	Malaysia	125.00 <sup>7</sup>	186.00 <sup>8</sup>	Dec. 18, 1970
Brazil	350.00	440.00	Nov. 27, 1970	Mali	17.00 <sup>9</sup>	22.00 <sup>9</sup>	Dec. 23, 1970
Burma	48.00	60.00	Nov. 27, 1970	Malta	10.00 <sup>10</sup>	18.00 <sup>10</sup>	Nov. 27, 1970
Burundi	15.00	19.00	Nov. 27, 1970	Mauritania	10.00 <sup>11</sup>	13.00 <sup>11</sup>	Nov. 27, 1970
Cameroon	18.20 <sup>12</sup>	35.00	Dec. 23, 1970	Mauritius	15.00	22.00 <sup>12</sup>	Dec. 23, 1970
Canada	740.00	1,100.00	Dec. 29, 1970	Mexico	270.00 <sup>13</sup>	370.00 <sup>13</sup>	Dec. 23, 1970
Central African Republic	9.50 <sup>14</sup>	13.00	Dec. 30, 1970	Mozambique	90.00	113.00	Dec. 30, 1970
Ceylon	73.00	98.00	Dec. 10, 1970	Nepal	10.00	10.30 <sup>15</sup>	Apr. 27, 1971
Chad	10.00	13.00 <sup>16</sup>	Nov. 27, 1970	Netherlands	520.00 <sup>17</sup>	700.00 <sup>17</sup>	Dec. 23, 1970
Chile	125.00	158.00	Dec. 31, 1970	New Zealand	157.00	202.00 <sup>18</sup>	Dec. 15, 1970
Colombia	125.00	137.00	Nov. 27, 1970	Nicaragua	19.00	27.00	Nov. 13, 1970
Congo, Democratic Rep. of	90.00	113.00	Nov. 12, 1970	Niger	10.00	13.00 <sup>19</sup>	Nov. 27, 1970
Congo, People's Rep. of the	10.00	13.00	Dec. 30, 1970	Nigeria	100.00	135.00 <sup>20</sup>	Dec. 8, 1970
Costa Rica	25.00	32.00 <sup>21</sup>	Nov. 30, 1970	Norway	150.00	240.00 <sup>21</sup>	Nov. 27, 1970
Cyprus	20.00	26.00	Dec. 4, 1970	Pakistan	138.00	235.00 <sup>22</sup>	Nov. 27, 1970
Dahomey	10.00	13.00	Dec. 18, 1970	Panama	23.00 <sup>23</sup>	36.00	Dec. 22, 1970
Denmark	163.00	260.00	Oct. 30, 1970	Paraguay	15.00	19.00	Dec. 23, 1970
Dominican Republic	32.00	43.00	Oct. 30, 1970	Peru	35.00	121.00	Nov. 27, 1970
Ecuador	25.00	33.00	Nov. 4, 1970	Philippines	110.00	153.00	Dec. 10, 1970
El Salvador	25.00	35.00	Dec. 1, 1970	Rwanda	15.00	19.00	Oct. 30, 1970
Equatorial Guinea	6.00	8.00	Dec. 23, 1970	Saudi Arabia	90.00	134.00 <sup>24</sup>	Apr. 13, 1971
Ethiopia	19.00	27.00	Oct. 30, 1970	Senegal	25.00	34.00	Dec. 17, 1970
Finland	125.00	190.00	Dec. 1, 1970	Sierra Leone	15.00	25.00	Dec. 4, 1970
France	985.00	1,500.00	Dec. 14, 1970	Somalia	15.00	19.00	Nov. 30, 1970
Gabon	9.50 <sup>25</sup>	15.00	Dec. 30, 1970	Spain	250.00	395.00	Dec. 24, 1970
Gambia, The	5.00	7.00	Dec. 23, 1970	Sudan	57.00	72.00	Dec. 16, 1970
Germany	1,200.00	1,600.00	Dec. 24, 1970	Swaziland	6.00	8.00	Dec. 7, 1970
Ghana	60.00	87.00	Dec. 23, 1970	Sweden	225.00	325.00	Dec. 15, 1970
Greece	100.00	138.00	Nov. 10, 1970	Syrian Arab Republic	38.00	50.00 <sup>26</sup>	Nov. 30, 1970
Guatemala	25.00	35.00	Oct. 30, 1970	Tanzania	32.00	42.00	Dec. 15, 1970
Guinea	19.00	24.00	Dec. 23, 1970	Thailand	95.00	134.00	Dec. 29, 1970
Guyana	25.00	20.00	Nov. 28, 1970	Togo	11.25	15.00	Dec. 24, 1970
Haiti	15.00	19.00	Dec. 3, 1970	Trinidad and Tobago	44.00	60.00	Nov. 4, 1970
Honduras	19.00	25.00	Nov. 27, 1970	Turkey	108.00	151.00	Dec. 23, 1970
Iceland	15.00	23.00	Nov. 4, 1970	Uganda	32.00	40.00	Dec. 29, 1970
India	730.00	940.00	Dec. 24, 1970	United Arab Republic	150.00	188.00	Dec. 29, 1970
Indonesia	207.00	260.00	Nov. 23, 1970	United Kingdom	2,640.00	2,800.00	Nov. 13, 1970
Iran	125.00	192.00	Nov. 12, 1970	United States	3,160.00	6,700.00	Dec. 31, 1970
Iraq	80.00	109.00	Nov. 23, 1970	Upper Volta	10.00	13.00	Dec. 16, 1970
Ireland	80.00	121.00	Nov. 30, 1970	Uruguay	55.00	69.00	Nov. 4, 1970
Israel	90.00	130.00	Nov. 6, 1970	Venezuela	250.00	330.00	Nov. 24, 1970
Italy	625.00	1,000.00	Dec. 21, 1970	Viet-Nam	39.00	62.00 <sup>27</sup>	Dec. 8, 1970
Ivory Coast	19.00	52.00	Nov. 27, 1970	Yemen Arab Republic	8.00 <sup>28</sup>	10.00 <sup>29</sup>	Dec. 24, 1970
Jamaica	38.00	53.00	Dec. 21, 1970	Yemen, People's Dem. Rep. of	22.00	29.00	Dec. 27, 1970
Japan	725.00	1,200.00	Oct. 30, 1970	Yugoslavia	150.00	207.00	Dec. 14, 1970
Jordan	16.00	25.00	Nov. 19, 1970	Zambia	50.00	76.00	Dec. 23, 1970
Kenya	32.00	48.00	Dec. 4, 1970				
Khmer Republic	19.00	25.00 <sup>30</sup>	Dec. 29, 1970				
Kuwait	50.00	65.00 <sup>31</sup>	Dec. 22, 1970				

<sup>1</sup> Increased to \$19.00 million, effective May 4, 1970, by payment of the fifth and final installment under the Fourth Quinquennial Review.  
<sup>2</sup> Increased to \$10.00 million, effective May 23, 1970, by payment of the fifth and final installments under the Fourth Quinquennial Review.  
<sup>3</sup> Initially consented to an increase by installments but paid all five installments at the same time.  
<sup>4</sup> Decreased to \$10.00 million, effective May 19, 1970, by payment of the fifth and final installment under the Fourth Quinquennial Review.  
<sup>5</sup> Increase under Board of Governors Resolution No. 25-3, as amended by Resolution No. 25-4, effective June 15, 1970.  
<sup>6</sup> Kuwait consented to a quota of less than the maximum amount listed in the Annex to Resolution No. 25-3, which was \$114.00 million.  
<sup>7</sup> The Libyan Arab Republic consented to a quota of less than the maximum amount listed in the Annex to Resolution No. 25-3, which was \$67.00 million.  
<sup>8</sup> Nepal has consented to an increase in its quota to \$14.00 million, to be paid in five installments. The increase to \$10.30 million reflects payment of the first installment.  
<sup>9</sup> Initially consented to an increase in five installments. The first installment was paid, and Viet-Nam's increase in quota to \$43.60 million became effective on December 1, 1970. The four remaining installments were paid on December 8, 1970, at which time the full increase in quota to \$62.00 million became effective.  
<sup>10</sup> Quota on May 22, 1970 when the Yemen Arab Republic joined the Fund.  
<sup>11</sup> Increase under Board of Governors Resolution No. 25-3, as amended by Resolution No. 26-1, effective December 8, 1970.

### 1.3. DOLLAR GOLD CONVERSION

IN MARCH OF 1968 A "TWO TIER SYSTEM" WAS INTRODUCED. THIS SYSTEM DICHOTOMIZED BETWEEN MONETARY, OR OFFICIAL CENTRAL BANKING GOLD TRANSACTIONS, AND THE FREE GOLD MARKET. IN THIS NEW SETTING THERE WAS A FREE GOLD MARKET PRICE AND AN OFFICIAL MONETARY GOLD "PRICE." THIS LATTER "PRICE" REMAINED AT \$35/OUNCE AND WAS IN FACT NO MORE THAN A BOOK EXCHANGE VALUE OF GOLD USED FOR OFFICIAL RESERVE TRANSACTIONS. DURING THIS PERIOD OF "OFFICIAL FREE CONVERTIBILITY," NON U.S. OFFICIAL CENTRAL BANKS CONVERSIONS OF MONETARY DOLLAR HOLDINGS INTO GOLD WERE IN FACT AGAINST THE RULES OF "GOOD BEHAVIOR." THIS UNDERSCORED THE REALITY OF THE SITUATION THAT THE DOLLAR WAS, AT THIS TIME EVEN, NO LONGER CONVERTIBLE INTO GOLD. THE INTERNATIONAL MONETARY COMMUNITY APPARENTLY REACTED TO THIS QUASI OFFICIAL ACKNOWLEDGEMENT BY REARRANGING THEIR RESERVE ASSETS IN FAVOR OF FOREIGN CURRENCY AWAY FROM GOLD (EXPRESSED IN BOOK VALUE TERMS). FOR EXAMPLE, NON U.S. FOREIGN EXCHANGE HOLDINGS OF OTHER COUNTRIES INCREASED FROM \$27,600 MILLION IN DECEMBER 1967 TO \$53,222 MILLION IN JUNE OF 1971. DURING THIS SAME PERIOD OFFICIAL FOREIGN GOLD HOLDINGS DECREASED FROM \$27,440 MILLION TO \$25,973 MILLION.

IN THIS VEIN, THE SMITHSONIAN ACCORD, ARISING OUT OF NEGOTIATIONS CONDUCTED IN WASHINGTON OVER THE PERIOD DECEMBER 17-18 BY THE "TEN", AND FOLLOWING THE MONETARY CRISIS ENVIRONMENT OF LATE 1971, RECOGNIZED THE URGENCY OF ESTABLISHING A NEW ORDER FOR INTERNATIONAL MONETARY COOPERATION. AT THIS MEETING, 1972 WAS SET AS A TARGET YEAR IN WHICH TO BEGIN INTENSIVE WORK ON REDESIGNING THE INTERNATIONAL MONETARY STRUCTURE. THE IMMEDIATE CONCRETE ELEMENTS OF THIS AGREEMENT WERE A NEW SET OF CENTRAL EXCHANGE RATES AND A PROVISION FOR WIDER BANDS, WITHIN WHICH "EXCHANGE RATES" WOULD BE FREE TO MOVE  $\pm$  2.25 PERCENT ABOVE OR BELOW THE NEWLY ESTABLISHED CENTRAL RATES. CONCURRENT WITH THIS ACCORD THE ADMINISTRATION AGREED TO ASK CONGRESS FOR PERMISSION



TO CHANGE THE BOOK VALUE OF GOLD<sup>1</sup> AND IN ADDITION THE U.S. DROPPED ITS 10 PERCENT SURTAX ON IMPORTS. THE EVENTS LEADING UP TO THIS ACTION WILL BE TAKEN UP IN A LATER SECTION.

#### 1.4. WORLD BANK

ANOTHER MAJOR INSTITUTIONAL DEVELOPMENT AFTER WORLD WAR II WAS THE ESTABLISHMENT OF THE INTERNATIONAL BANK FOR RECONSTRUCTION AND REDEVELOPMENT. THIS BANK IS ANOTHER INTEGRAL LINK IN THE COMPLICATED INSTITUTIONAL FRAMEWORK THAT HAS BEEN SUPERIMPOSED ON THE WORLD MONETARY COMMUNITY. NO REVIEW OF THE INTERNATIONAL FRAMEWORK WOULD BE COMPLETE WITHOUT REFERENCE TO THE GOALS AND CONSTRUCT OF THIS ORGANIZATION.

WHILE THE IMF HAS PLACED EMPHASIS ON EXCHANGE STABILITY AND NATIONAL LIQUIDITY, THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (COMMONLY CALLED THE WORLD BANK) WAS ESTABLISHED TO PROMOTE LONG-TERM INTERNATIONAL INVESTMENTS. AS WITH THE IMF, THE INTERNATIONAL BANK WAS ENDOWED WITH A CAPITAL SUBSCRIBED BY ITS MEMBERS, TOTALING APPROXIMATELY 8 BILLION U.S. DOLLARS. DURING ITS EARLY INCEPTION THE BANK LOANED MAINLY TO WESTERN EUROPEAN COUNTRIES, HOWEVER, WITH THE RESURGENCE OF ECONOMIC POWER IN EUROPE, THE DEMAND FOR BORROWING FROM THE WORLD BANK HAS COME MAINLY FROM THE DEVELOPING NATIONS.

THE FORMAL CONSTRUCT OF THE WORLD BANK IS THAT MEMBER NATIONS PAY 2 PERCENT OF THEIR QUOTA IN DOLLARS OR GOLD AND 18 PERCENT IN THEIR DOMESTIC CURRENCY. THE 18 PERCENT PAID IN LOCAL CURRENCY COULD BE USED ONLY WITH THE CONSENT OF THE COUNTRY INVOLVED, AND THE REMAINING 80 PERCENT WAS SIMPLY A GUARANTEE FUND. WITH THIS BACKING, THE BANK

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<sup>1</sup> CONGRESS IN APRIL 1972 FINALLY GAVE THE PRESIDENT PERMISSION TO ADJUST THE "PRICE" OF GOLD TO THE NEW RATE.

WAS AUTHORIZED TO ISSUE BONDS, AND IN FACT THESE HAVE BEEN THE CHIEF SOURCE OF LOAN FUNDS. LENDING OPERATIONS OF THE WORLD BANK ARE CONSTRAINED IN THAT THE BANK MAY MAKE GUARANTEE LOANS ONLY IF FUNDS ARE NOT AVAILABLE FROM ALTERNATIVE (PRIVATE) SOURCES AT A REASONABLE INTEREST RATE. IN ADDITION, LOANS FROM THE WORLD BANK ARE RESTRICTED FOR SPECIFIC PURPOSES, SUCH AS DAMS, HIGHWAYS, ETC., AND THE LOAN MUST BE GUARANTEED BY THE GOVERNMENT OF THE BORROWING COUNTRY.

#### 1.5. SPECIAL DRAWING RIGHTS

ON JANUARY 1, 1970 A NEW ELEMENT WAS INTRODUCED INTO THE OFFICIAL MONETARY SETTINGS. THIS WAS THE INTRODUCTION OF SPECIAL DRAWING RIGHTS (SDRS). THE SDR'S ARE OFFICIALLY VALUED AT 35 UNITS PER OUNCE OF GOLD. SDR'S SERVE TWO JOINT PURPOSES (1) AS A FORM OF LOAN OF LAST RESORT AND (2) AS A RESERVE CURRENCY FOR NATIONS. THE ALLOCATION OF SDR'S, AMONG COUNTRIES, BASICALLY FOLLOWS THE SAME FORMAT OF ALLOCATING LOAN DRAWING RIGHTS AMONG NATIONS. THE NEW ARTICLES CONCERNING SDR'S (ARTICLES XXX AND XXXI) STIPULATED THAT THEY ARE ABSOLUTELY FIXED (THAT IS THEY ARE NOT SUBJECT TO WAIVER BY A DECISION OF THE FUND) AT 35 UNITS OF SDR'S PER OUNCE OF GOLD. THUS THE SDR'S HAVE NOW APPRECIATED RELATIVE TO THE U.S. DOLLAR. THE IMF (SEE ARTICLES XXX AND XXXI) ALLOCATES SDRS TO A WIDE RANGE OF COUNTRIES, MANY OF WHICH HAVE NOT SHARED IN INFLOWS OF SHORT-TERM FUNDS.

##### 1.5.1. SDR'S AND INTERNATIONAL MONETARY

THE IMF CREATED SPECIAL DRAWING RIGHTS WITH THE EXPLICIT PURPOSE OF ADDING TO WORLD LIQUIDITY. WHILE THE PLAN FOR DEVELOPING THIS NEW FUND BASICALLY FOLLOWS THE OLDER DRAWING RIGHTS SYSTEM, IT DIFFERS IN A NUMBER OF SIGNIFICANT WAYS. THE MOST SALIENT BEING THAT ONCE A GIVEN AMOUNT OF SDRS

HAS BEEN CREATED AND "ALLOCATED". A MEMBER HAS THE RIGHT TO DRAW TOTALLY AGAINST HIS ALLOCATION WITHOUT FUND APPROVAL. THESE RESERVES ARE UNCONDITIONALLY OWNED BY THE MEMBER COUNTRY. HOWEVER, THERE IS AN UNDERSTANDING THAT MEMBER NATIONS WILL NOT WISH TO DRAW AGAINST ITS SDR RESERVES EXCEPT TO COVER A BALANCE OF PAYMENTS DEFICIT. THE MAJOR ATTRIBUTE OF THIS SCHEME IS THAT OTHER MEMBER NATIONS ARE OBLIGED TO ACCEPT SDR'S AND TO SUPPLY THE EQUIVALENT AMOUNT OF CONVERTIBLE CURRENCIES WHEN ASKED TO DO SO. ACTUALLY, THE SYSTEM IS SO STRUCTURED THAT THE IMF MAY ACT AS AN INTER-MEDIARY IN A NATION EXERCISING ITS CALL OF SDR'S, WITH THE CONCOMITANT ALLOCATION OF FOREIGN CURRENCIES.

1.5.2. STOCK OF SDR'S AND IMPLICATIONS TO INTERNATIONAL MONETARY SETTING

THEREFORE ONCE SDR'S HAVE BEEN CREATED BY THE INTERNATIONAL MONETARY FUND, THEY REMAIN IN EXISTENCE AND THUS COMPRISE A NET ADDITION TO WORLD LIQUIDITY. LIKE ANY OTHER CURRENCY, IF AN SDR IS TRADED IN EXCHANGE IT IS THEN "OWNED" BY THE RECIPIENT NATION. THE CREATION OF NEW SDR'S REQUIRES AN 85 PERCENT MAJORITY OF THE VOTING POWER IN THE IMF. THE BASIS FOR ALLOCATING VOTES AMONG FUND MEMBERS IS APPROXIMATELY PROPORTIONAL TO EACH NATION'S CONTRIBUTION TO THE FUND. THUS WHILE THE EEC (EUROPEAN ECONOMIC COMMUNITY EXCLUDING THE U.K. \*) HAS LITTLE MORE THAN 15 PERCENT OF THE TOTAL VOTING POWER, IT IS ABLE TO EXERCISE A VETO OVER CREATION OF NEW SDR'S. TABLE 1.2 DETAILS THE ALLOCATION OF SDR'S AS OF 1 JANUARY 1971.

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\* OF COURSE WITH THE ADVENT OF NEW NATIONS INTO THE EEC ESPECIALLY THE UNITED KINGDOM, EEC IN VOTING ON THE CREATION OF NEW SDR'S WILL BE INCREASED.

### 1.5.3. LIMITATIONS

THE GENERAL ASSESSMENT OF THE IMF IS THAT THE CREATION OF THE SDR'S (OR PAPER GOLD) WILL BE A SIGNIFICANT FACTOR IN INCREASING INTERNATIONAL LIQUIDITY. HOWEVER, IN REVIEWING THE SHORT-LIVED EFFECT OF THE SDRS, THE IMF CAUTIONS THAT THEY CAN ONLY ACT TO RESTORE SHORT-TERM IMBALANCES AND THAT THEY ARE NOT TO BE VIEWED AS A PANACEA FOR STRUCTURAL IMBALANCES PERSISTING IN THE WORLD MONETARY COMMUNITY. THE BASIC TREND FOR THE FUND APPEARS TO BE TO ALLOW A GREATER RELIANCE ON EXCHANGE VARIATIONS AND WIDER MARGINS, RATHER THAN ARTIFICIAL INTERVENTION.<sup>1</sup>

### 1.6. CENTRAL BANKING SYSTEMS

THE MANY NATIONAL CENTRAL BANKING SYSTEMS ARE FUSED INEXORABLY INTO THE INSTITUTIONAL CONSTRUCT OF THE INTERNATIONAL MONETARY SYSTEM. BROADLY SPEAKING CENTRAL BANKS PURSUE A JOINT ROLE OF FURTHERING THEIR NATION'S DOMESTIC AND INTERNATIONAL ECONOMIC GOALS. IN THE REAL WORLD SITUATION THERE IS NO CLEAR DISTINCTION BETWEEN THESE FUNCTIONS. THIS IS ESPECIALLY TRUE IN AN ENVIRONMENT CHARACTERIZED BY FRICTIONAL TIME LAGS AND FIXED EXCHANGE RATES. IN THIS SITUATION THERE OFTEN IS A FEED-BACK BETWEEN A BANK'S DOMESTIC POLICY AND ITS INTERNATIONAL MONETARY GOALS. A SIMPLE EXAMPLE OF THIS IS WHERE AN EXPANSIONARY DOMESTIC MONETARY POLICY LEADS TO AN INCREASE IN DOMESTIC GROWTH WITH HIGHER PRICES. OVER A PERIOD OF TIME THIS POLICY DUE TO A NATION'S HIGHER PRICE LEVEL AND ARTIFICIALLY CONTRIVED LOWER INTEREST RATES<sup>2</sup> COULD BRING ABOUT A DEFICIT ON BOTH CURRENT AND CAPITAL ACCOUNT. IN A WORLD OF FIXED EXCHANGE RATES NATIONS TEND TO BE ABLE TO EXPORT THEIR DOMESTIC ECONOMIC "WOES." THIS IS ESPECIALLY THE CASE WHEN THE U.S. IS INVOLVED. A

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<sup>1</sup> EUROPEAN NATIONS ARE ENDEAVORING TO CLOSE THE "GAP" FROM - 2.25% TO - 1%, HOWEVER, THIS EXPERIMENT HAS BEEN TOO SHORT-LIVED TO EVALUATE ITS SECULAR EFFICACY.

<sup>2</sup> THIS WOULD BE THE CASE WHERE THE CENTRAL BANK INTERVENED TO KEEP THE INTEREST RATE STRUCTURE LOW. INTEREST RATE DIFFERENTIALS BETWEEN COUNTRIES GENERATE CAPITAL FLOWS (FROM LOW TO HIGH)

TABLE 1.2  
 ALLOCATIONS OF SPECIAL DRAWING RIGHTS  
 JANUARY 1, 1970 AND 1971  
 (IN MILLIONS OF SDRs)

Participant	Jan. 1, 1970	Jan. 1, 1971	Net Cumulative Allocation	Participant	Jan. 1, 1970	Jan. 1, 1971	Net Cumulative Allocation
Afghanistan	4.9	4.0	8.8	Korea	8.4	5.4	13.8
Algeria	12.6	13.9	26.5	Laos	1.7	1.4	3.1
Argentina	33.8	47.1	105.9	Lesotho	0.5	0.5	1.0
Australia	84.0	71.2	155.2	Liberia	3.4	3.1	6.5
Austria	29.4	18.7	48.1	Luxembourg	3.2	2.0	5.2
Barbados	—	1.4	1.4	Malagasy Republic	3.2	2.8	6.0
Belgium	70.9	69.6	140.4	Malawi	1.9	1.6	3.5
Bolivia	4.9	4.0	8.8	Malaysia	21.0	19.9	40.9
Botswana	0.5	0.5	1.0	Mali	2.9	2.4	5.2
Brazil	58.8	47.1	105.9	Malta	1.7	1.7	3.4
Burma	8.1	6.4	14.5	Mauritania	1.7	1.4	3.1
Burundi	2.5	2.0	4.6	Mauritius	2.7	2.4	5.0
Cameroon	3.1	3.7	6.8	Mexico	45.4	39.6	85.0
Canada	124.3	117.7	242.0	Morocco	15.1	12.1	27.2
Central African Rep.	1.6	1.4	3.0	Nepal	—	1.1	1.1
Ceylon	13.1	10.5	23.6	Netherlands	87.4	74.9	162.3
Chad	1.7	1.4	3.1	New Zealand	26.4	21.6	48.0
Chile	21.0	16.9	37.9	Nicaragua	3.2	2.9	6.1
Colombia	21.0	16.8	37.8	Niger	1.7	1.4	3.1
Congo, Dem. Rep. of	15.1	12.1	27.2	Nigeria	16.8	14.4	31.2
Congo, People's Rep. of the	1.7	1.4	3.1	Norway	25.2	25.7	50.9
Costa Rica	4.2	3.4	7.6	Pakistan	31.6	25.1	56.7
Cyprus	3.4	2.8	6.1	Panama	4.7	3.9	8.6
Dahomey	1.7	1.4	3.1	Paraguay	2.5	2.0	4.6
Denmark	27.4	27.8	55.2	Peru	14.3	13.2	27.4
Dominican Republic	3.4	4.6	10.0	Philippines	16.5	16.6	33.1
Ecuador	4.2	3.5	7.7	Rwanda	2.5	2.0	4.6
El Salvador	4.2	3.7	7.9	Senegal	4.2	3.6	7.8
Equatorial Guinea	1.0	0.9	1.9	Sierra Leone	2.5	2.7	5.2
Finland	21.0	20.3	41.3	Somalia	2.5	2.0	4.6
France	163.3	160.5	326.0	South Africa	33.6	21.4	55.0
Gabon	1.6	1.6	3.2	Spain	42.0	42.3	84.3
Gambia, The	0.8	0.7	1.6	Sudan	9.6	7.7	17.3
Germany	201.6	171.2	372.8	Swaziland	1.0	0.9	1.9
Ghana	11.6	9.3	20.9	Sweden	37.8	34.8	72.6
Greece	16.8	14.8	31.6	Syrian Arab Republic	6.4	5.4	11.7
Guatemala	4.2	3.9	8.1	Tanzania	5.4	4.5	9.9
Guinea	3.2	2.6	5.8	Thailand	—	14.3	14.3
Guyana	2.5	2.1	4.7	Togo	1.9	1.6	3.5
Haiti	2.5	2.0	4.6	Trinidad and Tobago	7.4	6.7	14.1
Honduras	3.2	2.7	5.9	Tunisia	5.9	3.7	9.6
Iceland	2.5	2.5	5.0	Turkey	18.1	16.2	34.3
India	126.0	100.6	226.6	Uganda	5.4	4.3	9.7
Indonesia	24.8	27.8	62.6	United Arab Republic	25.2	20.1	45.3
Iran	21.0	20.5	41.5	United Kingdom	409.9	299.6	709.5
Iraq	—	11.7	11.7	United States	866.9	716.9	1,583.8
Ireland	13.4	12.9	26.4	Upper Volta	1.7	1.4	3.1
Israel	15.1	13.9	29.0	Uruguay	9.2	7.4	16.6
Italy	205.0	107.0	212.0	Venezuela	42.0	35.3	77.3
Ivory Coast	3.2	5.6	8.8	Viet-Nam	6.6	6.6	13.2
Jamaica	6.4	5.7	12.1	Yemen Arab Republic	—	1.1	1.1
Japan	121.8	128.4	250.2	Yemen, People's Dem. Rep. of	3.7	3.1	6.8
Jordan	2.7	2.5	5.1	Yugoslavia	25.2	22.1	47.3
Kenya	8.4	5.1	10.5	Zambia	8.4	8.1	16.5
Khmer Republic	3.2	2.7	5.9	Total	3,414.0	2,949.2	6,363.3 <sup>1</sup>

<sup>1</sup> The precise amount of the two allocations is SDR 6,363,286,600.

SLOWDOWN IN U.S. ECONOMIC GROWTH HAS A SIGNIFICANT IMPACT UPON ITS MAJOR TRADING PARTNERS, ESPECIALLY IF THEIR EXCHANGE RATES ARE NOT RESPONSIVE TO REAL VARIATIONS IN THE DEMAND FOR U.S. DOLLARS VIS-A-VIS THEIR OWN DOMESTIC CURRENCY.

1.6.1. INTERNATIONAL MONETARY RESERVES - OBJECTIVES

NATIONAL BANKING SYSTEMS MAINTAIN A PORTFOLIO OF INTERNATIONAL MONETARY ASSETS FOR INTERVENTION PURPOSES, TRANSACTION PURPOSES, AND LIQUIDITY PURPOSES. A GLANCE AT THE COMPOSITION OF RESERVES OF THREE COUNTRIES, AS IN TABLE 2, WILL SERVE AS AN INDICATION AS TO HOW FRANCE, GERMANY AND JAPAN, TO CITE THREE IMPORTANT EXAMPLES, STRUCTURE THEIR RESERVES FOR USE IN INTERNATIONAL MONETARY TRANSACTIONS.

TABLE 2  
COMPOSITION OF MONETARY RESERVES  
AUGUST 31, 1971  
(IN % OF TOTAL RESERVE)

NATION	FRANCE	GERMANY	JAPAN
GOLD	46.1	24.3	5.4
SDRS AND FUND POSITIONS	9.8	9.0	6.1
FOREIGN EXCHANGE	44.1	66.7	88.5
TOTAL	100.0	100.0	100.0

THE FOLLOWING IS A BRIEF DISCUSSION OF HOW EACH OF THE ABOVE THREE OBJECTIVES ARE RELATED TO THE SIZE AND COMPOSITION OF A NATION'S RESERVES.

1.6.1.1. INTERVENTION PURPOSES: IF A COUNTRY POSSESSES LARGE INTERNATIONAL MONETARY RESERVES, THEN IT CAN INTERVENE BY OPEN MARKET TRANSACTIONS TO

REVALUE ITS NATIONAL CURRENCY. IN ADDITION, DEPENDING UPON THE COMPOSITION OF THESE RESERVES, NATIONS CAN HAVE VARYING IMPACTS UPON THE TOTAL MONETARY COMMUNITY. FRANCE'S LARGE GOLD HOLDINGS FOR EXAMPLE, RELATIVE TO OTHER RESERVE ASSETS, ALLOWED IT TO PLAY QUITE A DECISIVE ROLE IN THE RECENT DECISION OF THE U.S. TO DEVALUE.

1.6.1.2. TRANSACTION PURPOSES: THIS REFERS TO THOSE OPERATING BALANCES NEEDED BY A NATION TO CARRY ON DAY TO DAY INTERNATIONAL CAPITAL AND CURRENT ACCOUNT TRANSACTIONS. THIS IS ANALOGOUS TO WHAT ACCOUNTANTS REFER TO AS OPERATING CAPITAL FOR BUSINESS ENTERPRISES.

1.6.1.3. LIQUIDITY RESERVE: BESIDES BEING A "WEAPON" FOR INTERVENTION AND TRANSACTION PURPOSES, UNNECESSARY LIQUIDITY RESERVES TEND TO REFLECT A PSEUDO MERCANTILIST APPROACH TO ACQUIRING POWER OVER FOREIGN CAPITAL.

## 1.7. EURODOLLAR MARKET

### 1.7.1. INTRODUCTION

THE EURODOLLAR HAS BECOME A SIGNIFICANT FACTOR IN THE CONTEXT OF INTERNATIONAL MONETARY RELATIONS. THIS SECTION WILL TOUCH UPON THE NATURE AND INFLUENCE OF THIS "RELATIVELY" NEW PHENOMENON. IN ITS 34 TH ANNUAL REPORT (1963-1964) THE BANK FOR INTERNATIONAL SETTLEMENTS DEFINES A EURODOLLAR ". . . . AS A DOLLAR THAT HAS BEEN ACQUIRED BY A BANK OUTSIDE THE UNITED STATES AND USED DIRECTLY OR AFTER CONVERSION INTO ANOTHER CURRENCY FOR LENDING TO A NON-BANK CUSTOMER,

PERHAPS AFTER ONE OR MORE REDEPOSITS FROM ONE BANK TO ANOTHER THE BANK THEN EXPANDS THIS DEFINITION IN SUCH A MANNER AS TO LEAVE IT QUITE UNCLEAR WHAT SPECIFIC TERM, IF ANY, THE PHRASE EURODOLLAR ACTUALLY REFERS TO.

YELAND YEAGER IN HIS TEXT INTERNATIONAL MONETARY RELATIONS (P. 467) ADDS TO THIS CONFUSION BY STATING: "THE TERM EURO-DOLLAR IS HARD TO DEFINE BECAUSE IT SO OFTEN SERVES AS A LOOSE LABEL RATHER THAN AS THE NAME OF A SPECIFIC ASSET OR LIABILITY." HOWEVER, YEAGER GOES ON TO ADD THAT IN THE STRICTEST SENSE A EURODOLLAR " . . . IS A SHORT TERM DEPOSIT HELD WITH A EUROPEAN BANK BUT EXPRESSED IN U.S. DOLLARS INSTEAD OF THE LOCAL CURRENCY." IT SHOULD BE NOTED THAT THIS SYSTEM IS NOT CONSTRAINED TO U.S. DOLLARS NOR CONFINED TO EUROPE.

#### 1.7.2 CONCENTRATION OF EURODOLLAR MARKET

THE EURODOLLAR MARKET IS MAINLY CONCENTRATED IN EUROPE AND AND THE MAJOR EURO CURRENCY IS THE AMERICAN DOLLAR. IN EFFECT THE BANKING SYSTEMS OF THE LARGER WESTERN EUROPEAN COUNTRIES ARE TO A LARGE DEGREE "JOBBER" OF EURODOLLARS. THEY DO THIS BY RELENDING ACQUIRED EURODOLLARS TO BORROWERS OUTSIDE OF THEIR COUNTRIES. AFTER 1960 THE SIZE OF THE EURODOLLAR MARKET BEGAN TO GREATLY EXPAND. WHENEVER EURODOLLARS WERE SHIFTED OUT OF DOMESTIC USE AND PLACED ABROAD AS EURODOLLARS, OR WHEN EURODOLLARS ACQUIRED ABROAD WERE SHIFTED TO DOMESTIC USE, AN INTERNATIONAL CAPITAL FLOW RESULTED THAT WAS RECORDED IN THE BALANCE OF PAYMENTS OF THE COUNTRY(IES) IN QUESTION. THIS MOVEMENT HAS THE EFFECT OF INCREASING OR DECREASING A PARTICULAR COUNTRY'S OFFICIAL RESERVES (AND LIQUIDITY).



1.7.3. DETERMINANTS OF EUROCOLLAR MOVEMENTS

A STUDY BY RODNEY H. MILLS, JR. OF THE DIVISION OF INTERNATIONAL FINANCE, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM SUGGESTS THAT EURODOLLAR CAPITAL FLOWS ARE HIGHLY DEPENDENT UPON (1) THE AVERAGE COVERED DIFFERENTIAL BETWEEN THE 3 MONTH EURODOLLAR DEPOSIT RATE AND THE DOMESTIC MONEY MARKET, AND (2) THE PERCENTAGE CHANGE IN THE VOLUME OF BANK LOANS TO PRIVATE DOMESTIC BORROWERS. MILLS RECOGNIZES THAT OTHER DETERMINANTS, INDIGENEOUS TO A PARTICULAR NATION CAN ALSO BE HIGHLY EXPLANATORY OF EURODOLLAR FLOWS.

FRATIANNI-SAVONA MODEL OF EURO-DOLLAR MARKET

IN THIS CONTEXT, MICHELLE FRATIANNI AND PAOLO SAVONA PRESENT A MODEL OF THE INTERNATIONAL MONETARY BASE AND EURODOLLAR MARKET: AN ECONOMETRIC MODEL. THEY DEVELOP A MODEL WITH 24 VARIABLES (SIX ENDOGENOUS, AND EIGHTEEN POLICY AND EXOGENOUS) AND SIX EQUATIONS WHICH ARE INTENDED TO EXPLAIN SIMULTANEOUSLY THE SOURCES AND USES OF THE INTERNATIONAL MONEY BASE AND THE EURODOLLAR MARKET (EDM). THIS MODEL IS SUMMARIZED IN THE APPENDIX TO CHAPTER I.

1.7.4 U.S. MONETARY MANAGEMENT AND THE EURODOLLAR MARKET

AS THE SIZE OF THE EURODOLLAR MARKET INCREASES IT BECOMES MORE DIFFICULT FOR THE 'FED' TO MANAGE THE U.S. DOMESTIC MONETARY SUPPLY. FOR EXAMPLE, SHOULD THE U.S. FEDERAL RESERVE SYSTEM INSTITUTE A STRINGENT MONETARY POLICY TO ACHIEVE A DOMESTIC GOAL, SUCH A POLICY COULD BE DILUTED TO SOME EXTENT BY AN INFLOW OF U.S. DOLLARS FROM THE EURO-DOLLAR MARKET. THE DEGREE TO WHICH THE EURODOLLAR MARKET

AFFECTS U.S. MONETARY POLICY IS TO SOME EXTENT A FUNCTION<sup>1</sup> OF THE RATIO OF THE DOMESTIC MONEY SUPPLY TO OUTSTANDING EURODOLLARS. TO SOME EXTENT, IN THE CASE OF A STRINGENT DOMESTIC MONETARY POLICY THIS RATIO WOULD INCREASE AND THEREFORE BE PERVERSE FROM A POLICY POINT OF VIEW. FIGURE I, ILLUSTRATES THE SPREAD ON THE INTERNATIONAL BOND MARKET FOR U.S. COMPANIES.

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<sup>1</sup> FOR THE EURODOLLAR POOL TO INFLUENCE THE U.S. MONEY SUPPLY IT MUST BY DEFINITION BE A SUBSTANTIAL RATIO TO THE U.S. MONEY SUPPLY. HOWEVER, AS NOTED IN THE TEXT, INTEREST DIFFERENTIALS, U.S. INVESTMENT OPPORTUNITIES, INTERNATIONAL MONETARY STABILITY, ETC. ALL INFLUENCE CAPITAL (EURODOLLARS) FLOWS.

# U.S. companies' borrowing rates

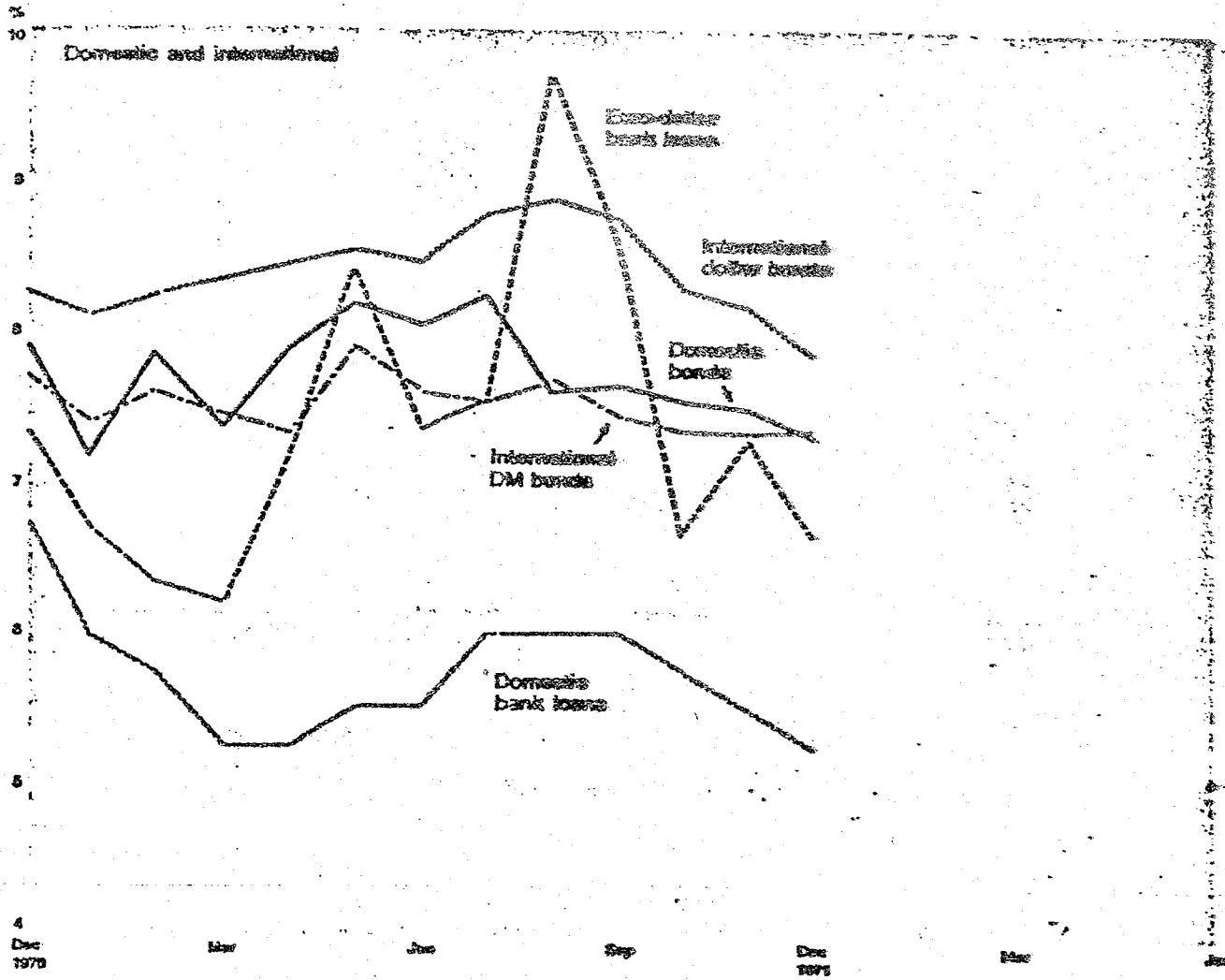


FIGURE 1

APPENDIX I  
FRATIANNI-SAVONA MODEL OF EURODOLLAR MARKET

LIST OF ENDOGENOUS VARIABLES (  $\Delta$  DENOTES FIRST DIFFERENCES ):

$IMB^b$	=	INTERNATIONAL MONETARY BASE HELD BY THE BANKING SYSTEM
$IMB^p$	=	INTERNATIONAL MONETARY BASE HELD BY THE PUBLIC
CREU	=	EARNING ASSETS OF EUROBANKS IN NONDOMESTIC CURRENCY TO NONBANK CLIENTELE
DEU	=	EUROCOLLAR DEPOSITS
$i_{DEU}$	=	RATE ON DEU
$i_{CREU}$	=	RATE ON CREU

LIST OF POLICY AND EXOGENOUS VARIABLES :

G	=	WORLD IMB GOLD STOCK NET OF IMF HOLDINGS
FPOS	=	IMF GOLD TRANCHE POSITION PLUS CREDITS GRANTED TO THE ENTIRE COMMUNITY OF MEMBER COUNTRIES
CL	=	CREDIT LINES IN DOLLARS OF CENTRAL BANKS WITH THE FRS PLUS CREDIT LINES, NOT IN DOLLARS, WITH OTHER CENTRAL BANKS
OC	=	OTHER CURRENCIES USED AS IMB
IMBUSB	=	BALANCE-OF-PAYMENTS DISEQUILIBRIUM OF THE U.S. MEASURED ON AN IMB BASIS (DEFINED IN SECTION 1.2.)
SDR	=	SPECIAL DRAWING RIGHTS
$IMB^{cb}$	=	INTERNATIONAL MONETARY BASE HELD BY CENTRAL BANKS
$X^i$	=	INDEX OF WORLD TRADE
$i_{BUSA}$	=	YIELD ON U.S. LONG-TERM ASSETS
$i_{BEU}$	=	YIELD ON EURO BONDS
$i_{IMBP}$	=	YIELD ON IMB
$i_{EG}$	=	EXPECTED CAPITAL GAIN ON PRIVATE HOLDINGS OF GOLD

APPENDIX I  
FRATIANNI-SAVONA MODEL OF EURODOLLAR MARKET  
(CONTINUED)

- $i_{DUSA}$  = YIELD ON DEMAND DEPOSITS NONRESIDENTS MAINTAIN WITH THE U.S. BANKING SYSTEM
- $i_{TUSA}$  = SAME AS ABOVE WITH RESPECT TO TIME DEPOSITS
- $CRUSB$  = DOLLAR LOANS TO U.S. COMMERCIAL BANKS
- $CAUSD$  = CURRENT ACCOUNT DISEQUILIBRIA OF THE U.S. BALANCE OF PAYMENTS
- $i_{CR}$  = INDEX OF CREDIT MARKET RATES IN THE COUNTRIES WHICH OPERATE IN THE EURODOLLAR MARKET
- $i_{CP} - \bar{i}^q$  = DIFFERENTIAL BETWEEN THE YIELD OF COMMERCIAL PAPER IN THE U.S. AND THE MAXIMUM DEPOSIT RATE ALLOWED UNDER REGULATION Q

THE MODEL CONSISTS OF THE FOLLOWING SIX EQUATIONS.

- SOURCES AND USES OF THE INTERNATIONAL MONETARY BASE.

$$1. \Delta G + \Delta FPOS + \Delta CL + \Delta OC + IMBUSB + \Delta SDR = \Delta IMB^{cd} + \Delta IMB^b + \Delta IMB^p$$

- DEMAND FOR  $IMB^p$ :

$$2. \Delta IMB^p = f^d(i_{DEU}; i_{IMB^p}, \Delta x^i, i_{BUSA}, i_{BEU}, \overset{E}{i}_G)$$

IN THE  $f^d$  FUNCTION, AS IN THOSE WHICH FOLLOW, THE ENDOGENOUS VARIABLES ARE SEPARATED FROM THE EXOGENOUS VARIABLES BY A SEMICOLON. THE SIGN OF THE PARTIAL DERIVATIVES OF THE  $f^d$  FUNCTION ARE:

$$f_j^d > 0 (j = 2, 3); f_k^d < 0 (k = 1, 4, 5, 6)$$

- CONSOLIDATION OF THE EURODOLLAR PORTION OF THE BALANCE SHEETS OF ALL BANKS WHICH OPERATE IN THE EDM:

$$3. \Delta IMB^b + \Delta CRUSB + \Delta CREU = \Delta DEU$$

- DEMAND FOR EURODOLLAR LOANS BY NONBANK CLIENTELE:

APPENDIX I  
(CONTINUED)

$$4. \Delta CREU = g^d(i_{CREU}; \Delta x^i, CAUSD, i_{BEU}, i_{CRI})$$

$$g_j^d > 0 (j = 2, 3, 4, 5); g_k^d < 0 (k = 1)$$

• BANKS' SUPPLY OF EURODOLLAR LOANS TO NONBANK CLIENTELE:

$$5. \Delta CREU = g^s(i_{CREU}, \Delta IMB^h; i_{TUSA}, i_{CP} - i_q)$$

$$g_j^s > 0 (j = 1, 2); g_k^s < 0 (k = 3, 4)$$

• THE YIELD ON EURODOLLAR DEPOSITS:

$$6. i_{DEU} = h^s(i_{CREU}; i_{CRI})$$

$$h_j^s > 0 (j = 1, 2)$$

## 2. REVIEW OF THE U.S. BALANCE OF PAYMENTS 1971

### 2.0 INTRODUCTION

1971 WAS A PIVOTAL YEAR IN THE MONETARY HISTORY OF THE UNITED STATES. IT WAS THE YEAR IN WHICH THE DOLLAR SUCCUMBED TO THE VICISSITUDES OF THE MARKET AND RELINQUISHED ITS POSITION AS "THE" WORLD CURRENCY. THIS CHAPTER WILL LOOK AT THE MAJOR ITEMS THAT LED TO THE RECORD 1971 DEFICIT IN THE U.S. BALANCE-OF-PAYMENTS, A DEFICIT THAT FINALLY PRECIPITATED THE DEVALUATION OF THE DOLLAR. THE OFFICIAL SETTLEMENT FOR 1971 WAS \$29.7 BILLION, ABOUT THREE TIMES THE DEFICIT RECORDED FOR 1970 (SEE TABLE 7, LINE 31). THE INCREASE IN THE OFFICIAL SETTLEMENTS DEFICIT OF \$20 BILLION DOLLARS WAS DUE TO A LARGE RISE IN THE DEFICIT ON CURRENT ACCOUNT, LONG-TERM CAPITAL TRANSACTIONS AND MASSIVE SPECULATIVE CAPITAL OUTFLOWS FROM THE UNITED STATES.

THE DEFICIT CONTINUED TO GROW EVEN AFTER THE ANNOUNCEMENT OF THE EMERGENCY MEASURES TAKEN WITHIN THE FRAMEWORK OF THE NEW ECONOMIC POLICY (AUGUST 15). THIS WAS CAUSED PRIMARILY BY SPECULATIVE PRESSURES ON THE DOLLAR IN ANTICIPATION OF A WORLD-WIDE CURRENCY REALIGNMENT. TOWARD THE END OF 1971 THE DEFICIT STARTED TO TAPER OFF SOMEWHAT AS A CURRENCY AGREEMENT APPEARED IMMINENT. THE NET LIQUIDITY BALANCE, WHICH PURPORTS TO MEASURE CHANGES IN U.S. RESERVE ASSETS (TABLE 5) AND IN PRIVATE AND OFFICIAL NET LIQUID CLAIMS ON THEM, WAS IN DEFICIT BY APPROXIMATELY \$22 BILLION IN 1971 (REFERENCE TABLE 7). ECONOMISTS TODAY ARE PLACING LESS SIGNIFICANCE ON THIS ACCOUNT AS A GUIDE TO POLICY, AND ARE LOOKING MORE TO THE SECULAR TREND ON THE OFFICIAL-SETTLEMENTS BASIS.

1971 SAW A FURTHER DETERIORATION IN THE U.S. OFFICIAL RESERVE ASSETS BY \$2.4 BILLION (REFERENCE TABLE 5). U.S. RESERVE ASSETS STOOD AT \$12.1 BILLIONS IN DECEMBER OF 1971, WHILE U.S. LIABILITIES TO FOREIGN OFFICIAL INSTITUTIONS INCREASED BY MORE THAN \$29 BILLION, TO AN ESTIMATED \$52.5

BILLION. ABOUT \$45 BILLION OF THIS DEBT IS IN THE FORM OF U.S. GOVERNMENT OBLIGATIONS. THE INCREASE IN THE DEBT WAS SYMPTOMATIC OF THE STRESS THAT THE DOLLAR WAS HAVING IN MAINTAINING ITS EXCHANGE PARITY UNDER THE BRETTON WOODS SYSTEM.

THE BASIC BALANCE, WHICH INCLUDES THE BALANCE ON CURRENT ACCOUNT AND LONG-TERM CAPITAL TRANSACTIONS, HAD A DEFICIT OF APPROXIMATELY \$10 BILLION IN 1971. THIS COMPARED WITH AN AVERAGE DEFICIT ON THIS ACCOUNT OF \$2.5 BILLION FOR THE YEARS 1968 THROUGH 1970. THE DECREASE IN INTEREST RATES IN THE U.S. DURING 1971 RESULTED IN: (1) THE STOCK MARKET BEGAN TO PICK UP IN ANTICIPATION OF A U.S. ECONOMIC RECOVERY. THIS SLOWED DOWN TO SOME EXTENT NET PORTFOLIO INVESTMENTS SEEKING FOREIGN CAPITAL GAINS AND (2) THE LOWER DOMESTIC RATES CAUSED INTEREST SENSITIVE FUNDS TO FLOW FROM THE U.S. INTO THE FOREIGN MARKETS WHERE THE INTEREST RATES WERE HIGHER.

THE FOLLOWING DISCUSSION PROVIDES A MORE DETAILED ANALYSIS OF THE MAJOR ITEMS THAT ENTER INTO THE BALANCE-OF-PAYMENTS CASH FLOW FOR 1971.

TABLE 3  
1971 BALANCE OF TRADE  
(BILLION)

	1971	1971.1	1971.2	1971.3	1971.4
MERCHANDISE TRADE	-\$ 2.86	\$ 0.40	-\$ .80	-\$ 1.12	-\$ 1.35
EXPORTS	\$42.76	\$10.90	\$11.17	\$10.73	\$ 9.96
IMPORTS	-\$45.65	-\$10.48	-\$12.01	-\$11.86	-\$11.31
OTHER GOODS AND SERVICES (NET)	\$3.578	\$ 1.10	\$ 1.10	-\$ .20	\$ 1.60
BALANCE ON GOODS AND SERVICES	-\$ .01	\$ 1.50	\$ 0.20	-\$ 1.30	-\$ 0.30



2.1. BALANCE OF MERCHANDISE TRADE

DURING 1971, THE BALANCE OF MERCHANDISE TRADE DETERIORATED AND WAS IN DEFICIT BY \$2.87 BILLION, AS COMPARED TO A SURPLUS OF \$2.41 BILLION IN 1970. THIS DETERIORATION WAS THE REFLECTION OF A 13.5 PERCENT INCREASE IN IMPORTS, ACCOMPANIED BY ONLY A 1.5 PERCENT INCREASE IN EXPORTS.

THE RATE OF INCREASE IN THE VOLUME OF EXPORTS, HOWEVER, DID EXCEED THE INCREASE IN THE VALUE OF EXPORTS. CORRELATIVELY, THE UNIT PRICE OF EXPORTS DECLINED.

WHILE ACTUAL AND POTENTIAL STRIKES, PARTICULARLY THE PROLONGED DOCK STRIKE, DISTORTED THE QUARTERLY TRADE FIGURES, THE ADVERSE TREND IN TRADE WAS LARGELY RELATED TO THE WORLD WIDE BUSINESS CYCLE VARIATIONS. IN 1971, THE U.S. WAS EXPERIENCING A MILD RECOVERY IN AGGREGATE REAL ECONOMIC ACTIVITY WITH NO EASING OF PRESSURE ON U.S. EXPORT PRICES RELATIVE TO COMPETITORS. CONCOMITANT WITH THE U.S. RECOVERY MANY MAJOR U.S. TRADING PARTNERS WERE UNDERGOING A RELATIVE DECLINE IN BUSINESS ACTIVITY. THIS SLACKENING IN FOREIGN ECONOMIC GROWTH HAD AN ADVERSE EFFECT ON THE U.S. BALANCE OF TRADE SITUATION SINCE U.S. DEMAND FOR IMPORT-COMPETITIVE GOODS WAS INCREASING WHILE AGGREGATE FOREIGN DEMAND, ESPECIALLY IN WESTERN EUROPE AND JAPAN, WAS DECREASING. THIS HAD THE EFFECT OF PERPETUATING THE RELATIVE PRICE ADVANTAGE OF FOREIGN EXPORTERS TO THE U.S. CONSEQUENTLY THIS DIFFERENTIAL MARGINAL GROWTH IN U.S. AND FOREIGN BUSINESS ACTIVITY TENDED TO WEAKEN THE ADVANTAGE FROM THE DE FACTO DEVALUATION (DEPRECIATION) OF THE DOLLAR IN THE LATTER MONTHS OF 1971.

BY THE THIRD QUARTER OF 1971 U.S. EXPORT PRICES, USING AN INDEX OF 100 FOR 1963, HAD RISEN TO 124, WHILE THE SAME INDEX FOR "OTHER DEVELOPED NATIONS" REACHED 120. THESE INFLATIONARY CONDITIONS UNDOUBTEDLY HAD A DETRIMENTAL EFFECT ON THE U.S. BALANCE OF TRADE. IN THIS VEIN, HOWEVER, IT SHOULD BE NOTED THAT THE RATE OF INCREASE IN U.S. PRICES DURING 1971 WAS SLIGHTLY LOWER THAN IN MOST EUROPEAN NATIONS.

## 2.2 NET LIQUIDITY BALANCE

TABLE 4  
NET LIQUIDITY BALANCE  
(BILLIONS)

CREDITS (+): DEBITS (-)	ANNUAL		1971				
	1970	1971	IV	I	II	III	IV
1. MERCHANDISE TRADE BALANCE <sup>1</sup>	2.937 2.110	-2.647 -2.879	.288	.425	-.843	-1.117	-1.344
2. OTHER GOODS AND SERVICES, NET	1.480	3.578	1.061	1.088	1.071	-.124	1.594
3. BALANCE ON GOODS AND SERVICES	3.592	0.699	1.349	1.513	.228	-1.291	.250
4. NONSCHEDULED REPAYMENTS OF U.S. GOVT. CREDITS <sup>2</sup>	.244	.225	.040	.004	.102	.072	.048
5. TRANSACTIONS IN FOREIGN SECURITIES, NET, U.S. PURCHASES (-)	-.942	-.910	-.337	-.353	-.388	-.248	.79
6. TRANSACTION IN U.S. SECURITIES OTHER THAN TREASURY ISSUED, NET	2.190	2.251	.792	.559	.196	.582	.914
7. NONLIQUID CAPITAL FLOWS REPORTED BY U.S. BANKS, NET	-.816	-2.644	-.786	-.22	-.613	-.785	-1.224
8. ALLOCATIONS OF SPECIAL DRAWING RIGHTS (SDR)	.867	.717	-	.717	-	-	-
9. ERRORS AND OMISSIONS AND OTHER TRANSACTIONS <sup>4</sup>	-8.956	-22.767	-1.210	-4.265	-6.123	-8.413	-3.512

THE NET LIQUIDITY BALANCE AS ILLUSTRATED IN TABLE 4 IS MADE UP OF THE FOLLOWING MAJOR ITEMS: (1) THE MERCHANDISE TRADE BALANCE, (2) OTHER GOODS AND SERVICES, NET, (3) BALANCE ON OTHER GOODS AND SERVICES, (4) NON-SCHEDULED REPAYMENT OF U.S. GOVERNMENT CREDITS, (5) TRANSACTIONS IN FOREIGN SECURITIES, NET, U.S. PURCHASES, (6) TRANSACTIONS IN U.S.

SECURITIES OTHER THAN TREASURY UNITS, NET, (7) NONLIQUID CAPITAL FLOWS REPORTED BY U.S. BANKS, NET, (8) ALLOCATION OF SPECIAL DRAWING RIGHTS (SDR) AND (9) ERRORS AND OMISSIONS AND OTHER TRANSACTIONS.

THE DEFICIT OF \$21.97 BILLION IN 1971 ON THE NET LIQUIDITY BALANCE UNDERSCORES THE PRESSURES WHICH MOUNTED AGAINST THE DOLLAR DURING THIS PERIOD. THE QUARTERLY DEFICITS ON THIS ACCOUNT IN 1971 WERE \$1.8 BILLION, \$6.6 BILLION, \$10.1 BILLION, AND \$3.5 BILLION. THE DETERIORATION OF THE LIQUIDITY BALANCE WAS PRINCIPALLY DUE TO A BUILDUP OF SPECULATIVE CAPITAL OUTFLOWS IN NON-LIQUID SHORT-TERM BANK CLAIMS ON FOREIGNERS. OF GREAT IMPORTANCE WAS THE SUBSTANTIAL INCREASE IN THE NONQUANTIFIABLE ACCOUNT "ERRORS AND OMISSIONS AND OTHER TRANSACTIONS". THESE UNRECORDED OUTFLOWS, WHICH IN 1971 TOTALLED 22.31 BILLION, INCLUDED U.S. TRANSFERS INTO EURODOLLARS, SPECULATIVE PURCHASES OF FOREIGN CURRENCIES, THE EFFECT OF LEADS AND LAGS IN THE PAYMENTS AND RECEIPT OF CURRENCIES FOR "NORMAL" FINANCIAL TRANSACTIONS.

DURING 1971, LONG-TERM CAPITAL OUTFLOWS, PARTICULARLY U.S. DIRECT FOREIGN INVESTMENTS, INCREASED SHARPLY. THE SINGLE MOST IMPORTANT IMPETUS TO ALL FORMS OF U.S. CAPITAL OUTFLOWS WAS THE GENERAL EXPECTATION OF AN IMMIMENT DOLLAR DEVALUATION. THIS WAS ESPECIALLY TRUE DURING THE HIGHLY SPECULATIVE THIRD QUARTER OF 1971. IN THIS ENVIRONMENT THE UNDERLYING REASON FOR MANY OF THESE OUTFLOWS WAS TO AVOID ANY WEALTH LOSS, EXPLICIT OR IMPLICIT, BY HOLDING ASSETS IN U.S. DOLLARS RELATIVE TO WEALTH HELD IN CURRENCIES THAT WERE EXPECTED TO APPRECIATE AGAINST THE DOLLAR.

2.2.1 U.S. MULTINATIONAL COMPANIES INCREASED THEIR DIRECT FOREIGN INVESTMENT BY \$5.5 BILLION (UP FROM \$4.5 BILLION IN 1970). THE ADVANTAGE OF THESE ESCALATED INVESTMENT PROGRAMS, PRIOR TO DEVALUATION, WAS THE ABILITY OF THE DOLLAR TO COMMAND MORE GOODS AND SERVICES ABROAD.

- 2.2.2 U.S. LONG-TERM FOREIGN LENDING BY U.S. BANKS INCREASED BY APPROXIMATELY \$800 MILLION. THE DEMAND FOR THESE LONG TERM LOANS TO FINANCE NON-SPECULATIVE, RELATIVELY NON-LIQUID ASSETS, APPEARS TO HAVE ALSO BEEN STIMULATED BY EXPECTED WEALTH GAIN (OR LOSS AVOIDANCE) FROM DEVALUATION.
- 2.2.3. IN THE SAME CONTEXT, U.S. FOREIGN PORTFOLIO PURCHASES INCREASED WHILE FOREIGN PORTFOLIO INVESTMENTS IN THE U.S. DECREASED. THE NET DECREASE IN PORTFOLIO FLOWS WAS \$500 MILLION (FROM \$1.2 BILLION IN 1970 TO \$0.7 BILLION IN 1971).
- 2.2.4. U.S. NET SHORT TERM CAPITAL OUTFLOWS TO FOREIGN COUNTRIES IN 1971 AMOUNTED TO \$20 BILLION. OF THIS AMOUNT \$8.0 BILLION APPEARED TO BE SENSITIVE TO INTEREST DIFFERENTIALS BETWEEN THE U.S. AND FOREIGN CAPITAL MARKETS. IN 1971 THE INTEREST RATES IN THE U.S. WERE LOWER THAN IN MOST OTHER LEADING TRADING NATIONS. THESE INTEREST DIFFERENTIALS (SEE TABLE 9) OF 1971 PROMPTED SHORT TERM CAPITAL OUTFLOWS FROM THE U.S. THIS WAS A REVERSAL OF THE SITUATION OF 1968-69 WHERE HIGHER U.S. INTEREST RATES CAUSED FOREIGN SHORT-TERM CAPITAL INFLOWS INTO THE U.S.

TABLE 9 PRESENTS A REVIEW OF THE INTERNATIONAL MONETARY MARKETS. THESE ITEMS COVER THE MAJOR FINANCIAL INSTRUMENTS THAT ENTER INTO INTERNATIONAL MONETARY RELATIONS. IT IS BELIEVED THAT \$12 BILLION IN SHORT TERM CAPITAL OUTFLOWS IN 1971 WERE SPECULATIVE, AND THEREFORE SUBJECT TO REPATRIATION. THE MAJOR DETERMINANTS OF REPATRIATION WOULD APPEAR TO BE CHANGING INVESTMENT OPPORTUNITIES IN THE U.S. VIS-A-VIS FOREIGN MARKETS. THE INCREASING LIQUIDITY OF U.S. CORPORATIONS AND INDIVIDUALS, AND THE CONTINUING INTERNATIONAL INTEREST DIFFERENTIALS COULD RETARD THE RETURN OF THESE SPECULATIVE FLOWS.

2.2.5. A LARGE PERCENTAGE OF THE PRE AUGUST 15 CAPITAL OUTFLOW WAS IN THE FORM OF IMPORT PREPAYMENTS, ESPECIALLY TO JAPAN. THIS WAS DONE TO AVOID THE ADDITIONAL COST IN U.S. DOLLARS DUE TO THE ANTICIPATED DEVALUATION. THERE IS A PROBLEM ASSOCIATED WITH IDENTIFYING AND EXPLAINING CAPITAL FLOWS. THE FAILURE OF ACCOUNTING MECHANISMS TO QUICKLY ISOLATE CAPITAL MOVEMENTS INTO THEIR "OFFICIALLY" DESIGNATED CATEGORY IS REFLECTED IN THE SIZE OF THE CATEGORY OF "ERRORS AND OMISSIONS AND OTHER ITEMS". THIS CATEGORY LARGELY REFLECTED THE VOLATILITY OF CAPITAL FLOWS IN 1971 AND THE INABILITY OF THE ACCOUNTING SYSTEM TO QUICKLY CATEGORIZE THEM BY THEIR ORIGIN AND DESTINATION. "UNFORTUNATELY THIS INABILITY OF THE ACCOUNTING SYSTEM TO "ADJUST" MAKES ECONOMIC ANALYSIS OF THE INTERNATIONAL MONETARY ENVIRONMENT DIFFICULT.

2.3 OFFICIAL U.S. RESERVE ASSETS

TABLE 5  
MOVEMENT OF OFFICIAL U.S. RESERVE ASSETS - 1971  
(BILLIONS)

ASSETS	1971.1	1971.2	1971.3	1971.4	TOTAL 1971
TOTAL	.15	.84	1.37	-0.01	2.35
GOLD	.11	.46	.30	-0.00	.87
SDR	-.59	.20	.15	-0.0	-.25
CONVERTIBLE CURRENCIES	.37	-.07	.07	-0.0	.38
IMF - GOLD TRANCHE	.26	.25	.85	-0.08	1.35

IN 1971 U.S. OFFICIAL RESERVE ASSETS DETERIORATED FROM \$14.5 BILLION TO APPROXIMATELY \$12.1 BILLION. VIRTUALLY ALL OF THIS CHANGE OCCURRED PRIOR TO AUGUST 15, 1971. THE 1971 MOVEMENT OF NET U.S. OFFICIAL RESERVE ASSETS WAS \$0.15 BILLION, \$0.8 BILLION, \$1.4 BILLION, AND \$0.01 BILLION.

THE OFFICIAL U.S. RESERVE ASSETS ARE MADE UP OF GOLD (VALUED AT THE U.S. DESIGNATED MONETARY BOOK VALUE), SDR'S (SPECIAL DRAWING RIGHTS), FOREIGN CONVERTIBLE CURRENCIES, AND THE GOLD TRANCHE POSITION OF THE U.S. IN THE INTERNATIONAL MONETARY FUND (IMF). DURING 1971, THE U.S. CONDUCTED TRANSACTIONS IN ALL FOUR MAJOR RESERVE ELEMENTS. A CONSTRAINT ON THE USE OF GOLD FOR INTERNATIONAL MONETARY SETTLEMENTS HAS BEEN THE OFFICIAL U.S. POLICY SINCE 1968 OF NOT FREELY CONVERTING GOLD FOR DOLLARS, EXCEPT FOR SPECIAL OFFICIAL INTERGOVERNMENT AND IMF TRANSACTIONS. IN 1971 GOLD SALES AMOUNTED TO \$866 MILLION, AND THE U.S. IMF GOLD TRANCHE WAS REDUCED BY \$1.4 BILLION. THE REDUCTION OF THE "U.S. RESERVE ASSETS" CAN BE VIEWED AS A DECREASE IN U.S. LIABILITIES TO FOREIGNERS.

2.4

TABLE 6  
U.S. OFFICIAL SETTLEMENT  
1970 AND 1971  
(MILLIONS)

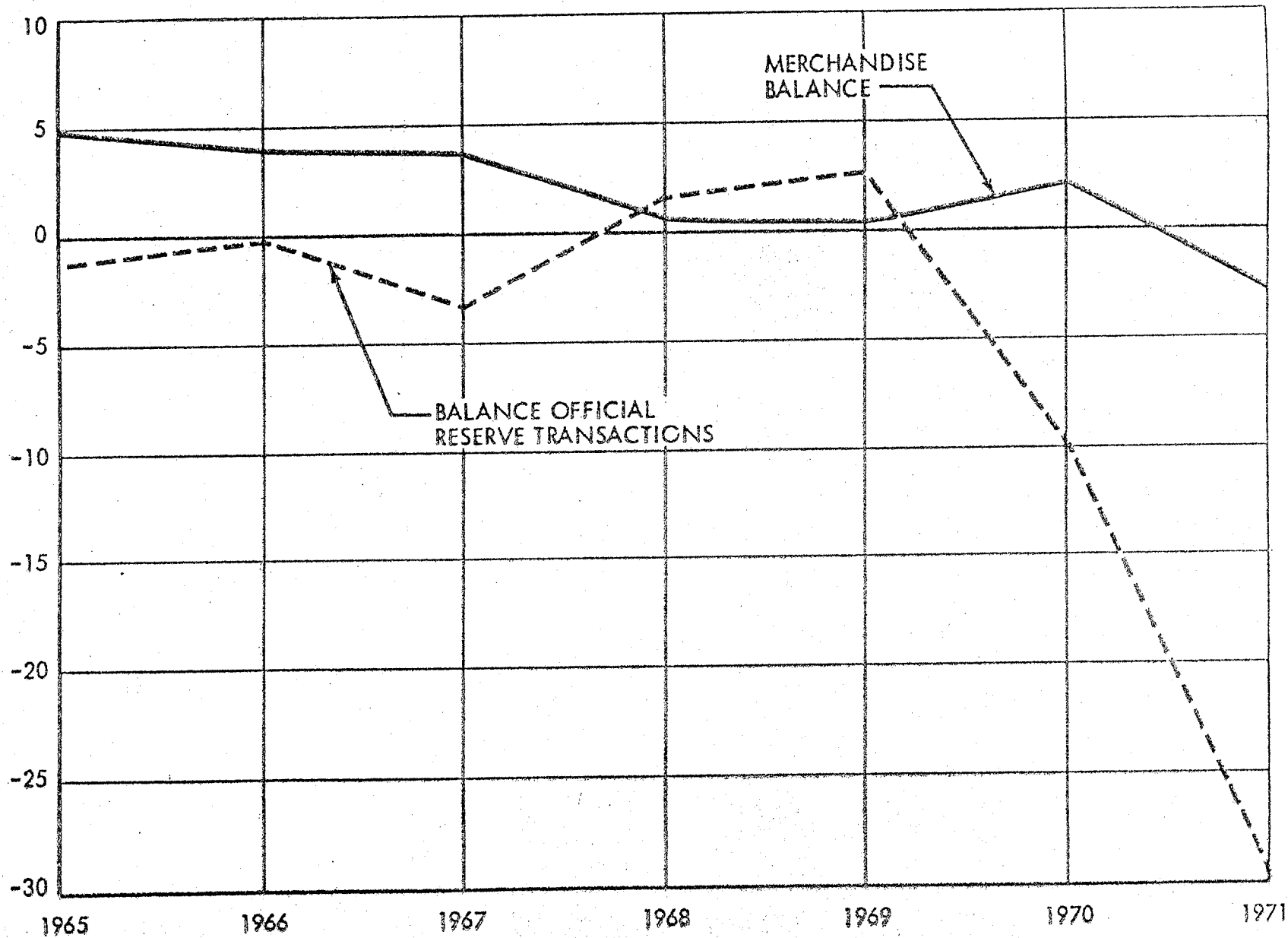
	1970	1971	1971			
			1	2	3	4
OFFICIAL RESERVE TRANSACTIONS BALANCE	-9,821	-29,767	-4,718	-6,462	-12,704	-5,883
FINANCED BY CHANGES IN:						
NONLIQUID LIABILITIES TO FOREIGN OFFICIAL RESERVE AGENCIES REPORTED BY U.S. GOVERNMENT	535	341	-2	-4	-3	-3
NONLIQUID LIABILITIES TO FOREIGN OFFICIAL AGENCIES REPORTED BY U.S. BANKS	-810	-539	-201	-160	-173	-5
LIQUID LIABILITIES TO FOREIGN OFFICIAL AGENCIES	7,619	27,619	4,776	5,788	11,507	5,546



FIGURE NO. 2

HISTORICAL TRENDS IN MERCHANDISE BALANCE  
AND BALANCE ON OFFICIAL RESERVE TRANSACTIONS

\$ BILLIONS





2.4 U.S. OFFICIAL SETTLEMENT ACCOUNT

AS WAS POINTED OUT IN THE INTRODUCTION, "U.S. RESERVE TRANSACTIONS" IN 1971 REACHED \$29.8 BILLION DOLLARS. THIS FIGURE SHOWS THE NET INTERNATIONAL CAPITAL MOVEMENTS OF THE U.S. AND, AS SUCH, IS AN ACCOUNTING BALANCING ITEM. IN THE CASE OF 1971, THIS ACCOUNT SHOWS HOW THE BALANCE OF PAYMENTS DEFICIT WAS FINANCED. TABLE 6 ITEMIZES THE MOVEMENT OF THE BALANCING ITEMS FOR 1971. IT MIGHT BE OBSERVED FROM TABLE 6 THAT THE TWO MOST "ACTIVE" ITEMS WERE "LIQUID LIABILITIES TO FOREIGN AGENCIES", AND MOVEMENTS IN "OFFICIAL RESERVE ASSETS". THE FORMER ACCOUNT REPRESENTED A GREATER DEBT WITH AN OFFSETTING DECREMENT IN THE RESERVE POSITION OF THE U.S.

2.5 TABLE 7 PRESENTS THE MAJOR DISAGGREGATED ITEMS THAT ENTERED INTO THE 1970 AND 1971 BALANCE OF PAYMENTS TRANSACTIONS. A REVIEW OF THIS TABLE WILL INDICATE THAT THE MOST IMPORTANT MOVEMENTS TOOK PLACE IN THE MERCHANDISE TRADE BALANCE; OTHER GOODS AND SERVICES, NET; NON LIQUID CAPITAL FLOWS REPORTED BY U.S. BANKS, NET; ERRORS AND OMISSIONS AND OTHER TRANSACTIONS; AND LIQUID PRIVATE CAPITAL FLOWS, NET. THE NEGATIVE ITEMS IN THE 1971 U.S. BALANCE OF PAYMENTS LED TO AN OFFICIAL RESERVE TRANSACTION BALANCE OF \$29.8 BILLION. THIS WAS THE LARGEST U.S. OFFICIAL RESERVE TRANSACTION BALANCE EVER RECORDED FOR THE U.S.

THE INCREASE IN U.S. OFFICIAL RESERVE TRANSACTION BALANCE WAS FINANCED MAINLY BY AN INCREMENT IN U.S. LIQUID LIABILITIES TO FOREIGN OFFICIAL AGENCIES AND A CHANGE IN THE GOLD TRANCHE POSITION OF THE U.S. IN THE IMF. IT IS SIGNIFICANT TO NOTE THAT IN 1970 \$2.2 BILLION OF THE \$9.8 BILLION OFFICIAL RESERVE TRANSACTION BALANCE WAS FINANCED BY THE USE OF FOREIGN CURRENCIES, WHILE IN 1971 ONLY \$0.4 BILLION WORTH OF FOREIGN CURRENCIES WERE USED TO OFFSET THE OFFICIAL U.S. DEFICIT. TWO POSSIBLE EXPLANATIONS ARE THAT BY 1971 THE U.S. HAD LARGELY DEPLETED ITS RESERVES OF THIS ASSET, AND THAT FOREIGN CENTRAL BANKS BY THEIR INTERVENTION IN THE CRISIS ENVIRONMENT OF 1971 "VOLUNTARILY" ALLOWED THE U.S. TO INCREASE THE LATTER DEBT.

THE MAGNITUDE OF THE INCREASE FROM \$9.8 BILLION IN 1970 TO \$29.7 BILLION IN 1971 IS INDICATIVE OF THE "OFFICIAL ACTIVITY" THAT WAS TAKEN TO MAINTAIN THE WORLD INTERNATIONAL MONETARY ORDER. THE HISTORICAL PATH OF THE NET MERCHANDISE BALANCE AND BALANCE ON OFFICIAL TRANSACTIONS SINCE 1965 IS PLOTTED ON FIGURE 2.

## 2.6 SMITHSONIAN ACCORD AND CURRENCY REALIGNMENT

WITH THE U.S. SECULAR DEFICIT IN ITS BALANCE OF PAYMENTS CONTINUALLY INCREASING AND THE RATIO OF NET U.S. ASSETS TO LIABILITIES DECREASING (0.4837 TO .2308) THE POSITION OF THE DOLLAR AS THE FOUNDATION OF THE FIXED EXCHANGE RATIOS (THE BRETTON WOODS SYSTEM) BECAME UNTENABLE. ON 15 AUGUST 1971, PRESIDENT NIXON REVOKED COMPLETELY ANY PRETEXT OF U.S. DOLLAR CONVERTIBILITY AND ALLOWED THE DOLLAR TO FLOAT FREELY. FURTHER, THE PRESIDENT FROZE DOMESTIC PRICES AND WAGES, THIS USHERING IN THE "NEW ECONOMIC POLICY" (NEP), AND INSTITUTED A FAIRLY COMPREHENSIVE 10 PERCENT IMPORT SURTAX. THESE ACTIONS BY PRESIDENT NIXON PRECIPITATED FRENZIED ROUNDS OF DISCUSSIONS AMONG THE LEADING FREE WORLD TRADING POWERS TO ATTEMPT TO SOLVE THE CURRENCY CRISIS. THE RESULT OF THESE DISCUSSIONS WAS THE SMITHSONIAN ACCORD OF 18 DECEMBER 1971. THIS ACCORD COVERED FOUR MAJOR POINTS: (1) A NEW SET OF INTERNATIONAL CURRENCY REALIGNMENTS (SEE TABLE 8), (2) THE REMOVAL OF THE 10 PERCENT U.S. SURTAX IN EXCHANGE FOR THE LOWERING OF CERTAIN TRADE BARRIERS AGAINST U.S. EXPORTS, (3) A NEW U.S. BOOK VALUE OF GOLD, AND (4) AGREEMENT BY THE MAJOR TRADING NATIONS TO ESTABLISH A NEW SYSTEM TO ENHANCE INTERNATIONAL MONETARY RELATIONS. TABLE 8 SUMMARIZES THE NEW EXCHANGE RATE CHANGES AGREED ON AT THE SMITHSONIAN MEETING.

## 2.7 REVIEW OF CURRENCY REALIGNMENT

A REVIEW OF TABLE 8 INDICATES THAT THE EFFECTIVE DEVALUATION OF THE UNITED STATES DOLLAR, WEIGHTED BY BILATERAL TRADE, AMOUNTED TO 12 PERCENT. THIS 12 PERCENT FIGURE REPRESENTS A TRADE WEIGHTED AVERAGE CHANGE

IN THE RELATIVE EXCHANGE VALUE VIS-A-VIS EIGHT OTHER COUNTRIES. THESE COUNTRIES REPRESENT EIGHT OF THE "TEN" MAJOR FREE WORLD TRADING NATIONS WITH THE EXCEPTION OF CANADA (WHICH HAS CONTINUED TO ALLOW ITS CURRENCY TO FLOAT) AND THE UNITED STATES.

THE U.S. CONDUCTS APPROXIMATELY 25 PERCENT OF ITS TOTAL TRADE WITH CANADA AND ABOUT 38 PERCENT WITH THE EIGHT OTHER NATIONS. AGAINST ALL CURRENCIES WHICH REVALUED RELATIVE TO THE DOLLAR, THE EFFECTIVE DEVALUATION WAS 9.7 PERCENT, AGAIN ON A TRADE WEIGHTED AVERAGE BASIS. THESE COUNTRIES ACCOUNT FOR APPROXIMATELY 80 PERCENT OF TOTAL U.S. TRADE. EIGHTEEN PERCENT OF TOTAL U.S. TRADE IS CONDUCTED WITH COUNTRIES WHO MAINTAINED THEIR EXCHANGE PARITY WITH THE DOLLAR, WHILE THE REMAINING TRADE IS WITH NATIONS WHO DEVALUED RELATIVE TO THE DOLLAR.

## 2.8 U.S. BALANCE OF PAYMENTS DEVELOPMENTS - FIRST QUARTER 1972

### 2.8.1 REVIEW

THE UNITED STATES DEPARTMENT OF COMMERCE ESTIMATES THE OFFICIAL RESERVE TRANSACTIONS BALANCE FOR 1972.1 AT \$2.6 BILLION. THE NET LIQUIDITY BALANCE WAS ESTIMATED AT -\$2.4 BILLION FOR 1972.1. THE OFFICIAL RESERVE TRANSACTION SHOWS AN IMPROVEMENT \$2.8 BILLION, WHILE THE NET LIQUIDITY BALANCE DETERIORATED BY \$0.6 BILLION FROM 1971.4 TO 1972.1.

### 2.8.2 MAJOR PAYMENT FLOWS FOR 1971.2

THE DEPARTMENT OF COMMERCE ATTRIBUTES THE REDUCTION IN THE NET LIQUIDITY DEFICIT BETWEEN 1971.4 TO 1972.1 TO A DECREASE IN THE RATE OF CAPITAL OUTFLOWS ASSOCIATED WITH TRANSACTIONS FOR WHICH FIRST QUARTER DATA WERE NOT AVAILABLE. THIS INCLUDED FLOWS RELATED TO DIRECT INVESTMENT AND THOSE FLOWS NOT COVERED BY THE ACCOUNTING SYSTEM. THIS IMPROVEMENT WAS ALSO REFLECTED IN THE OFFICIAL U.S. GOVERNMENT RESERVE TRANSACTIONS. AS WAS

EXPECTED, WITH THE DEEPENING AND WIDENING OF DOMESTIC OPPORTUNITIES AND THE DECREASE IN SPECULATIVE PRESSURES, THERE WAS A SIGNIFICANT DECLINE IN NET LIQUID PRIVATE CAPITAL OUTFLOWS IN 1972.1.

THERE WERE SOME OFFSETTING SHIFTS IN OTHER ACCOUNTS (AFFECTING BOTH BALANCES) IN THE FIRST QUARTER. ON THE POSITIVE SIDE THERE WAS A RISE IN FOREIGN PURCHASES OF U.S. SECURITIES AND A REDUCTION IN OUTFLOWS OF BANK REPORTED NON-LIQUID CAPITAL. HOWEVER, OFFSETTING THESE FAVORABLE SHIFTS WERE, AN INCREASE IN U.S. PURCHASES OF FOREIGN SECURITIES, TOGETHER WITH AN ESTIMATED DECLINE IN INVESTMENT INCOME RECEIPTS, AND SOME FURTHER WIDENING OF THE MERCHANDISE TRADE DEFICIT TOOK PLACE.

FOLLOWING TWO YEARS (1970-1971) OF VERY LARGE NET LIQUID PRIVATE CAPITAL OUTFLOWS, THERE WAS A RETARDATION OF THIS PROCESS IN 1972.1. BETWEEN 1971.4 AND 1972.1 THERE WAS AN IMPROVEMENT OF \$1.7 BILLION IN THIS ACCOUNT. THE \$2.6 BILLION DEFICIT IN THE OFFICIAL RESERVE TRANSACTIONS BALANCE WAS FINANCED BY AN INCREASE OF MORE THAN 2.4 BILLION IN LIABILITIES TO FOREIGN OFFICIAL AGENCIES.

### 2.8.3 MERCHANDISE TRADE IN THE FIRST QUARTER OF 1972

ACCORDING TO PRELIMINARY FIGURES MADE AVAILABLE ON APRIL 27, BY THE U.S. DEPARTMENT OF COMMERCE, THE U.S. MERCHANDISE TRADE DEFICIT ON A BALANCE OF PAYMENTS BASIS (EXCLUDING "MILITARY") INCREASED TO \$1,528 MILLION, IN THE FIRST QUARTER OF 1972.

TOTAL EXPORTS AND IMPORTS BOTH ROSE TO NEW QUARTERLY HIGHS, UP FROM THEIR STRIKE-DEPRESSED LEVELS IN THE FOURTH QUARTER OF 1971, WHEN THE INDUSTRIAL DISRUPTIONS ON THE WATERFRONT

SLOWED THE MOVEMENT OF GOODS THROUGH ATLANTIC AND GULF PORTS FOR APPROXIMATELY TWO MONTHS .

EXPORTS IN 1972.1 ADVANCED TO \$11,209 MILLION, AND IMPORTS INCREASED TO \$13,322 MILLION. THESE FIGURES ARE AFTER ADJUSTMENT TO A BALANCE OF PAYMENT BASIS, EXCLUDING MILITARY EXPORT SALES AND IMPORT PURCHASES BY DEFENSE AGENCIES, AND INCLUDE OTHER ADJUSTMENTS TO THE CENSUS BUREAU TRADE DATA TO ALLOW FOR TIMING COVERAGE AND VALUATION.

IT WOULD APPEAR THAT THE WEST COAST STRIKE FROM MID-JANUARY TO THE THIRD WEEK IN FEBRUARY WAS MORE THAN OFFSET BY THE BACKLOG IN MERCHANDISE FLOWS THROUGH EAST AND GULF COAST PORTS. BOTH THESE PORT AREAS REPORTED EXCEPTIONALLY HEAVY LOADINGS IN 1972.1. IN THIS CONTEXT, IT SHOULD BE NOTED THAT THE WEST COAST WATERSIDE WORKERS (ILWU) HAVE DECIDED TO CONTINUE WORKING DESPITE THEIR NEGOTIATED CONTRACT BEING SEVERELY MODIFIED BY THE PAY BOARD.

THE U.S. DEPARTMENT OF COMMERCE ATTRIBUTES THE SIZE OF THE TRADE DEFICIT TO "...BOTH THE DIVERGENT ECONOMIC GROWTH RATES HERE AND ABROAD, AND THE INITIAL IMPACT OF THE RECENT ADJUSTMENTS IN EXCHANGE RATES". INCREASE IN U.S. INCOMES APPARENTLY HAD A STIMULATING IMPACT ON IMPORTS, WHILE EXPORTS WERE PROBABLY LIMITED BY THE RELATIVE SLOWER INCREASE IN MOST U.S. EXPORT MARKETS. WITH A GROWING MOMENTUM IN THE ECONOMIC ACTIVITY OF OUR MAJOR TRADING PARTNERS, IT CAN BE EXPECTED THAT THIS TREND WILL REVERSE ITSELF.

ANOTHER FACTOR THAT ACCOUNTS FOR THE DETERIORATION IN THE BALANCE OF TRADE IS THE FACT THAT THE EFFECTS OF RELATIVE PRICE CHANGES

ON IMPORTS AND EXPORTS ARE DISTRIBUTED OVER TIME. MANY ECONOMISTS CONTEND THAT, ALTHOUGH LONG-TERM ELASTICITIES ARE INDEED GREATER THAN ONE, SHORT-TERM PRICE ELASTICITIES ARE LESS THAN ONE, SO THAT THE U.S. DEVALUATION MIGHT EXERT PERVASIVE EFFECTS ON THE TRADE BALANCE IN THE VERY SHORT-TERM.

TABLE 8  
EXCHANGE-RATE CHANGES  
(POST SMITHSONIAN)

Int

	PERCENTAGE CHANGES AGAINST THE U.S. DOLLAR FROM PRE- MAY 1971 PARITIES, EXPRESSED IN U.S. CENTS			TRADE-WEIGHTED AVERAGE CHANGES AGAINST A GROUP OF MAJOR CURRENCIES		
	NEW	MARKET RATES		NEW	MARKET RATES	
	CENTRAL RATES	DEC 31	JAN 18	CENTRAL RATES	DEC 31	JAN 18
UNITED STATES DOLLAR	0.00	0.00	0.00	-10.35	- 9.05	- 9.58
CANADIAN DOLLAR /	+ 8.49*	+ 7.87	+ 7.43	+ 5.58	+ 5.44	+ 4.77
JAPANESE YEN /	+16.87	+14.37	+15.17	+11.93	+10.34	+10.78
BRITISH POUND /	+ 8.57	+ 6.35	+ 7.51	+ 0.67	- 0.43	- 0.07
GERMAN MARK /	+13.58	+12.01	+13.87	+ 4.54	+ 4.24	+ 4.89
FRENCH FRANC /	+ 8.57	+ 6.45	+ 7.78	- 1.31	- 2.20	- 2.14
ITALIAN LIRA /	+ 7.48	+ 5.28	+ 6.28	- 1.90	- 2.76	- 2.96
BELGIAR FRANC /	+11.57	+11.61	+13.17	+ 1.51	+ 2.79	+ 2.91
DUTCH GUILDER /	+11.57	+11.33	+13.19	+ 1.17	+ 2.12	+ 2.56
SWISS FRANC	+13.87	+11.75	+12.94	+ 3.89	+ 3.39	+ 3.31
AUSTRIAN SCHILLING /	+11.59	+ 9.59	+11.54	+ 0.60	+ 0.22	+ 0.74
DANISH KRONE /	+ 7.45	+ 6.26	+ 6.80	- 1.31	- 1.17	- 1.70
NORWEGIAN KRONE /	+ 7.49	+ 6.56	+ 6.82	- 1.41	- 1.04	- 1.80
SWEDISH KRONA	+ 7.49	+ 6.47	+ 7.60	- 1.46	- 1.16	- 1.07
AUSTRALIAN DOLLAR /	+ 8.57	+ 6.12	+ 6.35	- 0.24	- 1.15	- 1.63

PRE-JUNE 1970 FOR CANADA

\* A CENTRAL RATE HAS NOT BEEN SET FOR THE CANADIAN DOLLAR. THE DECEMBER 17, 1971 MARKET RATE IS USED IN LIEU OF A CENTRAL RATE.

TABLE 9

INTERNATIONAL MONETARY FINANCIAL INSTRUMENTS



TABLE 9A

## International bond yields

Long-term issues, at or near end of month

		U.S. companies			European companies		Governments
		U.S. dollar	German mark	Swiss franc	U.S. dollar	German mark	U.S. dollar
1970	Dec	8.27	7.71	5.97	8.61	8.04	8.23
1971	Jan	8.10	7.40	5.91	8.38	7.89	7.96
	Feb	8.23	7.51	5.78	8.48	7.98	7.92
	Mar	8.36	7.44	5.68	8.52	7.93	7.80
	Apr	8.48	7.32	5.59	8.54	7.84	7.84
	May	8.58	7.91	5.52	8.78	7.91	7.99
	Jun	8.48	7.51	5.64	8.67	8.05	7.98
	Jul	8.31	7.58	5.70	8.91	8.00	8.07
	Aug	8.89	7.68	5.67	9.00	8.09	8.31
	Sep	8.76	7.44	5.50	8.98	7.92	8.39
	Oct	8.28	7.34	5.39	8.40	7.89	8.10
	Nov	8.18	7.34	5.36	8.42	7.92	8.01
	Dec	7.84	7.35	5.47	8.09	7.84	7.84

TABLE 9B

## Euro-dollar deposit rates

prime banks' bid rates in London, at or near end of month

		Call	7-day	One	Three	Six	Twelve
			notice	month	months	months	months
1968	Dec	6.75	6.88	7.00	7.06	7.13	7.13
1969	Mar	7.88	8.00	8.63	8.44	8.50	8.44
	Jun	9.25	9.25	10.00	10.50	10.50	10.94
	Sep	9.63	10.00	10.38	11.31	11.25	10.94
	Dec	10.13	10.13	9.75	10.13	10.06	9.81
1970	Mar	8.63	8.63	8.50	8.50	8.50	8.50
	Jun	8.63	8.63	8.81	9.00	9.06	9.06
	Sep	7.88	7.88	8.00	8.38	8.44	8.44
	Dec	5.38	5.38	6.19	6.44	6.75	6.75
1971	May	7.75	7.75	7.81	7.56	7.56	7.56
	Jun	4.63	5.00	5.69	6.50	7.00	7.33
	Jul	5.50	7.25	6.69	6.69	7.25	7.25
	Aug	n.a.	10.50	9.25	8.88	8.75	8.13
	Sep	5.33	5.63	7.06	7.75	7.75	7.75
	Oct	4.75	4.75	5.13	5.94	6.05	6.53
	Nov	5.00	5.00	6.50	6.44	6.50	6.55
	Dec	5.13	5.25	5.75	5.75	5.81	6.00

TABLE 9C

# International bond issues outside the United States

In millions of U.S. dollars

	1967	1968	1969	1970	1971	1971			Jan	
						Oct	Nov	Dec	1972 <sup>a</sup>	1972 <sup>b</sup>
<b>Euro-bonds, total</b>	2 002	3 573	3 156	2 968	3 624	153	530	255	451	290
<i>by category of borrower</i>										
U.S. companies	562	2 096	1 005	741	1 090	24	195	85	50	25
Other companies	575	603	817	1 065	1 119	11	224	85	212	109
State enterprises	442	349	632	594	838	55	56	85	67	129
Governments	303	500	584	351	479	42	55	—	132	27
International organizations	120	25	68	215	98	13	—	—	—	—
<i>by currency of denomination</i>										
U.S. dollar	1 780	2 554	1 723	1 775	2 203	35	445	200	325	181
German mark	171	914	1 338	688	786	82	71	55	121	71
Dutch guilder	—	—	17	391	298	27	14	—	15	28
Other <sup>c</sup>	51	105	78	112	337	11	—	—	—	10
<i>by type of security</i>										
Long-term straight debt	1 427	1 408	1 852	1 995	2 623	128	371	185	381	247
Medium-term straight debt	250	480	173	733	706	27	84	70	55	28
Certificates of deposit	55	75	—	—	—	—	—	—	25	—
Convertible	260	1 910	1 131	238	295	—	75	—	—	15
<b>Foreign bonds, total</b>	403	1 135	827	378	1 527	132	148	170	71	27
<i>by category of borrower</i>										
U.S. companies	48	139	223	55	200	44	—	—	—	14
Other companies	65	56	128	83	208	21	34	—	37	13
State enterprises	—	12	107	16	156	—	5	—	—	—
Governments	157	317	98	53	254	—	—	51	—	—
International organizations	133	611	271	171	709	67	107	119	34	—
<i>by currency of denomination</i>										
German mark	10	674	531	89	308	—	—	93	—	—
Swiss franc	153	238	198	193	659	65	54	2	37	27
Italian lira	24	72	24	—	32	—	—	—	34	—
British pound	102	19	—	12	138	—	—	24	—	—
Other <sup>b</sup>	114	132	76	84	390	67	92	51	—	—
<i>by type of security</i>										
Long-term straight debt	377	956	641	345	1 204	104	146	146	71	27
Medium-term straight debt	2	179	120	33	293	28	—	24	—	—
Convertible	—	—	66	—	30	—	—	—	—	—
<b>International bonds, total</b>	2 405	4 708	3 983	3 344	5 151	287	678	425	512	317

<sup>a</sup> Includes European unit-of-account, European Currency Unit, and E/DM option issues.

<sup>b</sup> Includes E/\$ option issues.

<sup>c</sup> Preliminary

TABLE 9D

### Central bank discount rates

	1968	1969	1970	1971				Current	
	end Dec	end Dec	end Dec	end Mar	end Jun	end Sep	end Dec	Jan 18 1972	Effective since
United States	5.50	6.00	5.50	4.75	4.75	5.00	4.50	4.50	Dec 13, 71
Canada	6.50	8.00	6.00	5.25	5.25	5.25	4.75	4.75	Oct 25, 71
Japan	5.84	6.25	6.00	5.75	5.50	5.25	4.75	4.75	Dec 29, 71
Belgium	4.50	7.50	6.50	6.00	6.00	5.50	5.50	5.00	Jan 6, 72
France	3.50	8.00	7.00	6.50	6.75	6.75	6.50	6.00	Jan 14, 72
Germany	3.00	6.00	6.00	6.00	5.00	5.00	4.00	4.00	Dec 23, 71
Italy	3.50	4.00	5.50	5.00	5.00	5.00	4.50	4.50	Oct 14, 71
Netherlands	5.00	6.00	6.00	6.00	5.50	5.00	5.00	4.50	Jan 6, 72
Denmark	6.00	9.00	9.00	8.00	7.50	7.50	7.50	7.00	Jan 10, 72
Norway	3.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	Sep 27, 69
Sweden	5.00	7.00	7.00	6.50	6.00	5.50	5.00	5.00	Nov 12, 71
Switzerland	3.00	3.75	3.75	3.75	3.75	3.75	3.75	3.75	Sep 15, 69
United Kingdom	7.00	8.00	7.00	7.00	6.00	5.00	5.00	5.00	Sep 2, 71
South Africa	5.50	5.50	5.50	6.50	6.50	6.50	6.50	6.50	Mar 30, 71

TABLE 9E

### Day-to-day money rates

monthly averages

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	4.51	6.02	8.97	4.90	4.91	5.31	5.57	5.55	5.20	4.91	4.14
Canada	5.67	5.46	7.78	5.14	3.03	3.64	4.01	4.14	4.18	3.72	3.51
Japan	7.30	7.15	8.50	7.50	6.50	6.25	6.25	6.00	5.50	5.50	5.00
Belgium	2.54	3.36	6.07	5.55	2.68	4.53	3.55	3.60	3.55	4.20	4.10
France	4.76	8.22	10.38	7.48	6.38	5.91	5.75	5.96	5.94	5.94	5.30
Germany	2.80	2.06	8.13	7.50	7.00	6.25	6.25	7.00	7.50	4.63	5.88
Netherlands	4.05	4.96	7.11	6.73	2.91	2.69	5.53	3.80	5.35	3.79	4.91
Switzerland	2.00	3.25	4.75	5.50	2.50	2.50	0.50	0.50	0.13	0.00	0.00
United Kingdom	7.45	6.52	7.64	6.66	5.88	5.75	5.16	4.92	4.66	4.13	4.00
Australia	4.16	4.18	4.40	4.90	5.91	5.68	5.59	5.70	5.74	5.11	5.14
South Africa	4.85	4.55	4.21	4.35	5.35	5.36	5.27	5.39	5.39	5.51	5.72
Euro-dollars	5.03	6.53	10.00	6.97	5.53	5.23	n.a.	6.42	5.19	5.03	5.26

TABLE 9F

### Treasury bill rates

bond-equivalent yields, at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	5.09	6.38	8.28	5.03	5.24	5.34	4.56	4.56	4.41	4.25	3.72
Canada	5.95	6.24	7.81	4.44	3.37	3.68	3.91	4.06	3.47	3.37	3.21
Japan	5.71	5.71	5.94	5.81	5.42	5.42	5.17	5.17	5.17	5.17	5.17
Belgium	4.40	5.00	8.50	6.95	4.80	4.90	4.70	4.60	4.50	4.60	4.80
France	5.23	8.41	10.18	7.73	7.17	6.80	6.61	6.96	6.32	5.97	5.68
Germany	2.78	2.78	5.83	5.83	4.30	4.30	4.30	4.30	3.50	3.80	3.28
Italy	5.05	5.05	5.70	6.57	5.80	5.90	6.52	6.20	5.90	5.53	5.41
Netherlands	4.60	5.06	6.25	6.25	4.37	4.00	4.63	4.75	4.75	4.00	5.00
Sweden	6.92	5.32	8.69	8.42	6.34	6.09	6.09	5.56	4.79	3.79	3.79
United Kingdom	7.62	6.90	7.80	6.95	5.68	5.64	5.90	4.78	4.61	4.33	4.46
Australia	4.50	4.50	4.79	5.65	5.37	5.37	5.37	5.37	5.37	5.08	5.08
South Africa	5.07	4.71	4.42	4.55	5.58	5.56	5.50	5.62	5.64	5.72	6.04

TABLE 9G

### Representative money-market rates

bond-equivalent yields, at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	5.91	6.96	9.46	6.05	5.65	5.79	5.65	5.65	5.13	4.75	4.49
Canada	6.74	6.61	9.34	6.09	4.30	4.81	4.81	5.06	4.94	4.81	4.42
Japan	8.03	8.40	9.25	8.75	7.00	6.50	6.50	6.25	5.75	5.75	5.75
Belgium	4.90	5.25	8.75	7.25	5.15	5.30	5.05	4.90	4.80	4.80	5.15
France	4.94	8.50	10.88	7.25	7.13	5.88	6.50	6.50	5.81	5.81	5.75
Germany	4.63	4.50	9.13	8.25	7.38	7.63	7.38	7.50	7.25	6.50	5.50
Italy	3.52	3.41	5.00	7.33	5.88	5.75	5.75	5.50	5.38	5.25	5.50
Netherlands	5.50	6.13	9.00	7.38	5.10	4.56	5.00	5.56	5.75	5.50	5.50
United Kingdom	8.00	7.75	9.13	7.00	6.25	6.13	5.88	5.38	5.06	4.38	4.63
Australia	5.00	5.25	5.75	6.00	7.75	7.25	7.00	7.00	6.50	6.25	6.50
South Africa	5.78	5.37	5.47	7.44	7.23	7.54	7.13	7.33	7.65	8.00	8.63
Euro-dollars	6.25	7.06	10.13	6.44	6.50	6.63	8.83	7.75	5.94	5.44	5.75

TABLE 9H

## Commercial bank deposit rates

at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	5.50	6.00	6.00	5.63	5.50	5.88	5.38	5.63	5.00	4.75	4.25
Canada	6.25	6.50	7.50	5.50	4.00	4.25	4.75	5.00	4.88	4.63	4.40
Japan	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Belgium	4.75	6.63	9.25	7.00	5.00	5.31	5.13	4.75	4.50	4.50	4.50
France	4.00	6.00	9.00	6.50	6.50	6.75	6.75	6.75	6.75	6.75	6.75
Germany	4.00	4.38	8.63	7.50	6.50	6.75	6.63	6.75	6.50	6.00	5.00
Italy	2.75	5.50	7.50	6.00	4.75	4.75	4.75	4.75	4.75	4.75	4.75
Netherlands	5.63	6.25	9.00	7.00	4.85	4.50	4.80	5.25	5.75	5.50	5.63
Denmark	6.25	4.75	7.00	8.00	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Norway	2.50	2.50	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Sweden	5.75	4.75	6.75	6.75	5.75	5.75	5.75	5.25	5.25	4.75	4.75
Switzerland	4.00	4.25	5.00	5.25	3.50	3.50	2.50	2.50	2.00	1.50	1.50
United Kingdom	7.88	7.63	9.13	7.00	6.19	6.00	5.75	5.19	4.94	4.25	4.50
Australia	4.00	4.25	5.00	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
South Africa	5.50	5.00	5.50	6.00	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Euro-dollars	6.25	7.08	10.13	6.44	6.50	6.69	8.88	7.75	5.94	6.44	5.75

TABLE 9I

## Commercial bank lending rates to prime borrowers

at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	6.00	6.75	8.50	6.75	5.50	6.00	6.00	6.00	5.75	5.50	5.25
Canada	6.50	6.75	8.50	7.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00
Japan	7.00	7.04	7.37	7.46	7.33	7.33	7.27	7.22	7.18	7.14	7.10
Belgium	6.25	6.50	10.00	8.50	8.00	8.00	8.00	7.50	7.50	7.50	7.50
France	5.85	7.85	10.35	9.65	9.05	9.05	9.05	9.05	9.05	9.05	8.65
Germany	6.00	6.00	9.00	9.00	8.00	8.00	8.00	8.00	7.50	7.75	7.25
Italy	6.75	6.50	8.25	10.25	9.00	9.00	9.00	8.75	8.75	8.25	8.25
Netherlands	6.50	7.00	8.50	8.50	8.00	8.00	7.50	7.50	7.00	7.00	7.00
Denmark	10.00	8.50	11.50	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Norway	6.00	6.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Sweden	8.50	7.50	9.50	10.00	9.00	9.00	9.00	8.50	8.50	8.00	8.00
Switzerland	6.25	6.25	6.50	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
United Kingdom	8.50	7.50	9.00	8.00	7.00	7.00	7.00	6.00	6.00	5.50	5.50
Australia	6.75	7.00	7.25	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
South Africa	8.50	8.00	8.00	8.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Euro-dollars	7.13	7.94	11.00	7.32	7.38	7.57	9.76	8.63	6.82	7.32	6.63

TABLE 9J

## Domestic government bond yields

long-term issues, at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	5.48	5.97	6.92	6.42	6.35	6.37	6.12	5.88	5.89	5.94	5.92
Canada	6.54	7.30	8.33	6.99	7.30	7.49	7.07	6.97	6.71	6.54	6.56
Japan	6.98	7.05	7.14	7.21	7.24	7.22	7.19	7.20	7.20	7.22	7.20
Belgium	5.23	5.22	5.77	5.49	5.24	5.22	5.21	5.34	5.34	5.32	5.33
France	5.60	6.00	6.78	7.64	7.59	7.80	7.59	7.77	7.53	7.37	7.34
Germany	6.89	6.58	7.38	7.84	7.93	7.92	7.83	7.72	7.63	7.61	7.54
Italy	6.58	6.59	7.30	8.90	8.71	8.73	8.68	8.45	8.17	8.18	7.93
Netherlands	6.13	6.34	7.50	7.18	6.75	6.83	6.75	6.78	6.58	6.65	6.83
Denmark	9.78	8.78	10.73	11.34	11.45	10.90	10.89	10.92	10.72	10.83	10.81
Norway	4.95	4.89	6.30	6.41	6.39	6.40	6.35	6.41	6.42	6.45	6.37
Sweden	6.80	6.19	7.27	7.32	7.28	7.29	7.30	7.10	7.11	7.12	7.14
Switzerland	4.55	4.35	5.34	5.70	5.42	5.46	5.31	5.09	4.97	4.86	4.99
United Kingdom	7.14	8.03	8.85	9.80	9.22	9.38	9.12	8.49	8.65	8.54	8.45
Australia	5.25	5.02	6.00	7.00	7.00	7.00	7.00	7.00	6.75	6.65	6.50
South Africa	6.48	6.44	6.48	7.75	8.50	8.50	8.50	8.50	8.50	8.50	8.50

TABLE 9K

## Domestic corporate bond yields

long-term issues, at or near end of month

	1967	1968	1969	1970	1971						
	Dec	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec
United States	6.74	7.04	8.95	7.90	8.05	8.25	7.60	7.75	7.55	7.50	7.30
Canada	7.59	8.18	9.29	8.83	8.52	8.56	8.41	8.32	8.21	8.14	8.24
Japan	8.57	8.66	9.07	9.20	7.95	7.61	7.49	7.44	7.42	7.49	7.38
Belgium	6.05	5.92	6.95	6.92	6.40	6.18	6.35	6.32	6.07	6.09	6.12
France	7.52	7.76	8.71	8.83	8.74	8.65	8.68	8.95	8.74	8.77	8.69
Germany	6.95	6.43	7.60	7.77	7.90	8.00	7.83	7.74	7.62	7.59	7.59
Italy	7.15	7.12	9.51	9.74	9.13	9.15	n.a.	8.92	8.72	8.62	8.46
Netherlands	6.71	6.98	8.54	7.88	7.58	7.70	7.60	7.91	8.05	7.65	7.91
Norway	5.79	5.75	7.42	6.81	6.74	6.76	6.76	6.77	6.78	6.70	6.77
Sweden	7.49	6.73	8.57	7.48	7.39	7.41	7.42	7.22	7.21	7.22	7.22
Switzerland	5.11	5.13	5.58	6.09	5.74	5.72	6.01	5.63	5.55	5.30	5.42
United Kingdom	7.97	9.16	10.70	10.84	10.38	10.26	9.99	9.36	9.22	9.09	9.19
Australia	7.25	7.50	8.25	9.25	9.25	9.25	9.25	9.00	9.00	8.75	8.50
South Africa	7.25	7.50	7.75	9.25	9.75	9.75	9.75	9.75	9.75	9.75	9.75

### 3. PROSPECTS FOR THE U.S. BALANCE OF PAYMENTS IN 1972

#### 3.0 INTRODUCTION

CHAPTER 3 WILL CONCERN ITSELF WITH FORECASTING THE U.S. BALANCE OF PAYMENTS FOR 1972. IN ORDER TO MAKE SUCH A FORECAST IT IS NECESSARY TO MAKE CERTAIN BEHAVIORAL ASSUMPTIONS REGARDING THE ACTIVITIES OF PRIVATE AND GOVERNMENTAL AGENCIES. AMONG SUCH CONSIDERATIONS WOULD BE: (1) ELASTICITIES OF U.S. SUPPLY AND FOREIGN DEMAND FOR AMERICAN EXPORTS, AND THE ELASTICITIES OF U.S. DEMAND FOR FOREIGN SUPPLY OF AMERICAN IMPORTS; (2) DIFFERENT NATIONAL AGGREGATE ECONOMIC REAL GROWTH; (3) THE TERM STRUCTURE OF INTEREST RATE DIFFERENTIALS BETWEEN THE U.S. AND THE REST OF THE WORLD; (4) MARGINAL RATES OF RETURN ON DIRECT INVESTMENT BETWEEN THE U.S. AND OTHER NATIONS; (5) EXPECTATIONS REGARDING CURRENCY REVALUATION; AND (6) DISCRETIONARY GOVERNMENT, CENTRAL BANK, AND OTHER OFFICIAL (I.E., THE IMF) MONETARY ACTIVITIES. THESE ELEMENTS AMONG OTHERS SHOULD BE CONSIDERED AND INTEGRATED INTO A FORECASTING FRAMEWORK OF THE BALANCE OF PAYMENTS.

#### 3.1 BALANCE OF PAYMENT PERSPECTIVE IS FOR 1972 SUMMARIZED

IT WOULD NOT BE PRUDENT TO EXPECT THE BASIC BALANCE TO IMPROVE BY MORE THAN \$4.0 BILLION DOLLARS DURING 1972. THE DEFICIT OF TRADE FOR 1972 IS PROJECTED TO BE APPROXIMATELY - \$1.5 BILLION; HOWEVER, THE RESIDUAL ITEMS ON THE CURRENT ACCOUNT SHOULD ALMOST OFFSET THE MERCHANDISE ACCOUNT IMBALANCE. THIS MOST PROBABLY WILL BE A RESULT OF DISCRETIONARY ACTIVITIES BY THE GOVERNMENT, AND THE LOWER PURCHASING POWER OF U.S. FIXED INCOMES ABROAD. FOR EXAMPLE, IT IS SPECULATED THAT DEVALUATION WILL LOWER THE PROPENSITY OF INDIVIDUALS RECEIVING FIXED INCOMES FROM THE U.S. TO LIVE ABROAD. BARRING MAJOR U.S. INDUSTRIAL DISRUPTIONS, THE EFFECTS OF THE DEVALUATION SHOULD START TO EXERT A POSITIVE IMPACT ON U.S. TRADE IN THE FOURTH QUARTER OF 1972 AND A SMALL SURPLUS IN THE BALANCE ON CURRENT ACCOUNT IS EXPECTED FOR THAT QUARTER. AS NOTED IN

THE PREVIOUS CHAPTER, THIS REVERSAL WILL BE TOO LATE AND TOO LITTLE TO OFFSET THE IMBALANCE REACHED DURING THE FIRST THREE QUARTERS. ANOTHER REASON NOT TO ANTICIPATE A SIGNIFICANT IMPROVEMENT IN TRADE IN THE EARLY PART OF 1972 IS THAT THE U.S. ECONOMY IS EXPECTED TO SHOW SUBSTANTIAL EXPANSION WHILE OTHER MAJOR INDUSTRIAL NATIONS AS A WHOLE ARE EXPECTED TO EXPERIENCE ONLY MODEST REAL ECONOMIC GROWTH IN THE FIRST HALF OF 1972.

3.2 MERCHANDISE TRADE: (-\$1.52 BILLION)

IN CURRENT DOLLARS THE WHARTON EFA 1972 ESTIMATE FOR EXPORTS IS \$77.8 AND FOR IMPORTS \$76.5. USING THE NATIONAL INCOME ACCOUNTS CONSTRUCT THE BALANCE OF NET EXPORTS OF GOODS AND SERVICES IS \$1.3 BILLION. HOWEVER, THIS FIGURE INCLUDES ITEMS OTHER THAN THOSE THAT ACTUALLY ENTER INTO WHAT IS MORE CONVENTIONALLY CALLED THE MERCHANDISE BALANCE. BY TAKING THE AVERAGE HISTORICAL TIME SERIES PERCENTAGE OF MERCHANDISE TRANSACTIONS ENTERING INTO WHAT IS CALLED (IN THE NATIONAL ACCOUNTING CONSTRUCT) "EXPORTS AND IMPORTS", AND COMBINING THIS WITH THE MOST RECENT WHARTON E.F.A. FORECAST, IT IS COMPUTED THAT IN 1972 U.S. EXPORTS IN CURRENT DOLLARS WILL BE \$52.03, AND IMPORTS \$53.55. THE U.S. WILL THUS SHOW A DEFICIT OF \$1.52 BILLION DOLLARS ON ITS MERCHANDISE ACCOUNT FOR 1972. HOWEVER, THIS IS CONSIDERABLY LESS THAN THE DEFICIT OF \$2.91 BILLION FOR 1971. IN ADDITION, 1972 SHOULD SHOW A FURTHER IMPROVEMENT, IF, AS ECONOMIC ANALYSIS WOULD SUGGEST, PRICE ELASTICITIES OF U.S. EXPORTS OVER TIME BECOME MORE ELASTIC THUS STIMULATING EXPORTS REVENUES.

3.3 CURRENT ACCOUNT (-\$0.5 BILLION)

IT IS EXPECTED THAT THE RESIDUAL ITEMS IN THE BALANCE ON CURRENT ACCOUNT WILL PARTIALLY OFFSET THE MERCHANDISE TRADE DEFICIT. THE ASSUMPTIONS HERE ARE THAT INCOMES FROM U.S. DIRECT INVESTMENTS ABROAD WILL CONTINUE TO SHOW MODERATE IMPROVEMENT AND THAT THIS INCREASE WILL BE SUPPLEMENTED WITH AN INCREASE IN TRANSFERS UNDER MILITARY AGENCY SALES CONTRACTS.



HOWEVER, THESE GAINS SHOULD BE OFFSET BY REPATRIATION OF FOREIGN EARNINGS IN THE U.S. AND INCREASED DOLLAR OUTFLOWS RELATED TO TRANSPORTATION AND TRAVEL. THESE OUTFLOWS WILL BE A DIRECT RESULT OF A MORE BULLISH U.S. ECONOMY WITH HIGHER CORPORATE AND INDIVIDUAL EARNINGS DURING 1972. THE NET EFFECT OF THE NON-MERCHANDISE ITEMS WILL BE POSITIVE, BUT NOT OF A LARGE ENOUGH MAGNITUDE TO OFFSET THE DEFICIT INCURRED THROUGH MERCHANDISE TRADE. HOWEVER, IT IS EXPECTED THAT, AS THE U.S. DEVALUATION TAKES 'HOLD', THE LATTER PART OF 1972 WILL SEE A NARROWING OF THE MERCHANDISE "GAP". THIS FORECAST IS PREDICATED UPON THE ASSUMPTION THAT BY LATE 1972 WESTERN EUROPE AND JAPAN WILL EXPERIENCE AN UPTURN IN THEIR REAL AGGREGATE GROWTH RATES AND THE U.S. WILL BE ABLE TO BENEFIT FROM ITS RELATIVELY LOWER PRICE STRUCTURE RESULTING FROM THE DOLLAR DEVALUATION. WHILE THE U.S. PRICE STRUCTURE IS STILL HIGHER THAN MOST OTHER TRADING NATIONS, ITS RATE OF INCREASE DURING 1971 WAS SLOWER. A CONTINUATION OF THIS PROCESS, IN CONJUNCTION WITH DEVALUATION WILL UNDOUBTEDLY HERALD A REVERSAL IN OUR TRADE ACCOUNT

TABLE 10  
ASSUMPTIONS AND FORECASTS

SUMMARY TABLE  
OF THE  
BALANCE OF PAYMENTS (1970-1972)  
(BILLIONS)

	<u>1970</u>	<u>1971</u>	<u>1972</u>
MERCHANDISE TRADE	+2.1	-2.9	-1.5
CURRENT ACCOUNT	+0.4	+0.7	- .5
LONG TERM CAPITAL	-3.4	-8.0	-4.0
BASIC BALANCE	-3.0	-8.7	-4.5
NET LIQUIDITY BALANCE	-3.8	-21.9	10.0
OFFICIAL SETTLEMENTS BALANCE	-9.8	-29.7	12.8

EXPLANATION:  
ELEMENTS IN SUMMARY TABLE

- I. MERCHANDISE TRADE (BALANCE OF GOODS AND SERVICES)
  - (1) GOODS
  - (2) SERVICES
  
- II. BALANCE ON CURRENT ACCOUNT
  - (1) MERCHANDISE TRADE
  - (2) REMITTANCES, PENSIONS AND OTHER TRANSFERS
  - (3) U.S. GOVERNMENT GRANTS EXCLUDING MILITARY
  
- III. LONG-TERM CAPITAL
  - (1) U.S. GOVERNMENT CAPITAL FLOWS, NET, AND NON-LIQUID LIABILITIES TO OTHER THAN OFFICIAL RESERVE AGENCIES
  - (2) LONG TERM PRIVATE CAPITAL FLOWS
  
- IV. BASIC BALANCE (BALANCE ON CURRENT ACCOUNT AND LONG TERM CAPITAL)
  - (1) CURRENT ACCOUNT
  - (2) LONG-TERM CAPITAL
  
- V. NET LIQUIDITY BALANCE
  - (1) IV-BASIC BALANCE
  - (2) NON-LIQUID SHORT-TERM PRIVATE NET CAPITAL FLOWS
  - (3) ALLOCATION OF SDR'S (STANDARD DRAWING RIGHTS)
  - (4) ERRORS AND OMISSIONS AND OTHER TRANSACTIONS
  
- VI. OFFICIAL RESERVE TRANSACTIONS
  - (1) NET LIQUIDITY BALANCE
  - (2) SHORT-TERM PRIVATE CAPITAL FLOWS

TABLE 10 PRESENTS HISTORICAL DATA FOR 1970 AND 1971 AND THE BALANCE OF PAYMENTS FORECAST FOR 1972. THE FOLLOWING DISCUSSION REVIEWS THE RATIONALE FOR MAKING THESE PROJECTIONS.

3.4

#### THE BASIC BALANCE

IT WOULD SEEM REASONABLE, AS INDICATED IN THE ABOVE FORECASTS, TO EXPECT THE BASIC BALANCE TO SHOW SOME IMPROVEMENT IN 1972 OVER 1971. AS NOTED, THE TRADE AND CURRENT ACCOUNTS DEFICITS ARE EXPECTED TO SHOW A DECLINE (-\$1.5 BILLION AND -\$0.5 BILLION) FOR 1972, BUT LONG TERM CAPITAL OUTFLOWS ARE FORECAST TO REMAIN WELL BELOW THE RECORD OUTFLOWS OF 1971.

IN THE LONGER RUN IT CAN WELL BE EXPECTED THAT THE U.S. DEVALUATION COULD FAVORABLY AFFECT THE MERCHANDISE TRADE BALANCE BY AT LEAST \$6 BILLION. HOWEVER, BASED ON EXPERIENCE WITH THE DEVALUATION OF THE POUND STERLING IN NOVEMBER 1967 AND MARK REVALUATION OF OCTOBER 1969, IT IS FELT THAT THE FULL BENEFITS TO THE U.S. FROM DEVALUATION WILL TAKE FROM THREE TO FOUR YEARS TO INDUCE A SUBSTANTIAL TURN AROUND IN THE BALANCE ON MERCHANDISE ACCOUNT. AS ALREADY NOTED, A SIGNIFICANT REASON NOT TO EXPECT MAJOR IMPROVEMENT IN THE TRADE BALANCE FOR 1972 IS THAT THE U.S. ECONOMY WILL SHOW A RELATIVELY GREATER MOMENTUM IN 1972 THAN THE OTHER MAJOR INDUSTRIAL COUNTRIES.

3.5

#### LONG TERM CAPITAL (-\$4.0 BILLION)

IT IS ASSUMED THAT NET LONG TERM PRIVATE CAPITAL FLOWS WILL DECREASE FROM -\$5.5 BILLION IN 1971 TO -\$1.8 BILLION IN 1972. THIS ASSUMPTION IS BASED UPON THE LOWER MARGINAL GROWTH RATES IN THE TRADITIONAL OUTLETS FOR U.S. LONG TERM INVESTMENTS VIS-A-VIS A STIMULATED U.S. ECONOMY.

THE MAJOR OUTLETS (BOOK VALUE OF ASSETS ALREADY ACQUIRED) FOR U.S. DIRECT INVESTMENTS ABROAD ARE (1) CANADA, (2) THE LATIN AMERICAN COUNTRIES, (3) WESTERN EUROPEAN NATIONS, (4) AUSTRALIA, NEW ZEALAND AND SOUTH AFRICA AND (5) JAPAN. MOST OF THESE COUNTRIES, PARTICULARLY CANADA, THE U.K., THE MAJOR NATIONS OF WESTERN EUROPE AND AUSTRALIA ARE ALL EXPERIENCING RELATIVELY SLOWER RATES OF REAL ECONOMIC GROWTH IN 1972 THAN THE U.S.

IN ADDITION, AS ILLUSTRATED IN TABLE 9, CAPITAL COSTS IN THE U.S. FOR LONG-TERM BORROWING ARE LOWER THAN THE TRADITIONAL U.S. INVESTMENT OUTLETS. THUS RELATIVELY HIGHER MARGINAL RATES OF RETURN (INCREASING INVESTMENT OPPORTUNITIES) AND LOWER CAPITAL CHARGES IN THE U.S. WILL BE RESPONSIBLE FOR DECREASING U.S. DIRECT OVERSEAS INVESTMENTS AND INCREASING FOREIGN CAPITAL INFLOWS VIA DIRECT FOREIGN INVESTMENT AND FOREIGN PORTFOLIO ACQUISITIONS. THESE ACQUISITIONS WILL BE IN RESPONSE TO THE BULLISH U.S. STOCK MARKET WHERE EXPECTATIONS OF CAPITAL GAINS ARE HIGH.

FURTHER IT IS BELIEVED THAT THE U.S. GOVERNMENT WILL TAKE STRONG DISCRETIONARY MEASURES TO RETARD ANY INCREASE IN "U.S. GOVERNMENT CAPITAL FLOWS". HOWEVER, BECAUSE THE PRICE OF FOREIGN GOODS AND SERVICES HAS BEEN INCREASED RELATIVE TO THE DOLLAR, IT IS DOUBTFUL THAT ANY DISCRETIONARY ACTIVITIES WILL BE STRONG ENOUGH TO LOWER THIS OUTFLOW BELOW ABOUT -\$2.0 BILLION.

IN SUMMARY LONG-TERM CAPITAL IS MAINLY A FUNCTION OF MARGINAL DIFFERENTIALS IN RATES OF RETURN ON CAPITAL, HIGHER NATIONAL INCOMES, DISCRETIONARY GOVERNMENT CAPITAL OUTFLOWS, ETC. THE U.S. ECONOMY IN THE EARLY STAGES OF A RECOVERY CYCLE CAN BE EXPECTED TO BE STIMULATED BY BOTH DOMESTIC AND FOREIGN INVESTMENT DUE TO THE WIDENING AND DEEPENING<sup>1</sup> INVESTMENT OPPORTUNITIES AND LOWER CAPITAL CHARGES. HOWEVER, AS THE RATE OF GROWTH STABILIZES AND U.S. CORPORATE RETAINED EARNINGS SWELL, IT CAN BE EXPECTED THAT THERE WILL BE A GREATER PROPENSITY FOR U.S. INVESTMENTS TO SPILL OVER INTO FOREIGN MARKETS. THIS WILL BE REINFORCED BY THE EXPECTED RECOVERY OF MOST MAJOR ECONOMIES IN LATE 1972. IN SUM THERE WILL BE A SLOWING OF THE PROCESS NEEDED TO BRING U.S. LONG TERM CAPITAL FLOWS INTO THE "RED", AS THE YEAR PROCEEDS. ALSO, U.S. IMPORT DEMANDS, WHICH ARE PROJECTED TO INCREASE IN 1972 AS NET U.S. DISPOSABLE INCOME INCREASES, WILL ACT AS A ECONOMIC STIMULUS TO MANY FOREIGN ECONOMIES<sup>2</sup>. THIS IS ESPECIALLY TRUE FOR THOSE COUNTRIES WHERE NET EXPORTS ARE LARGELY TO THE U.S.

<sup>1</sup> ESPECIALLY AFTER EXCESS CAPACITY IS ABSORBED

<sup>2</sup> FOREIGN TRADE MULTIPLIER

3.6

### NET LIQUIDITY BALANCE (\$10.0)

THIS ITEM, WHICH MEASURES CHANGES IN U.S. RESERVE ASSETS AND IN PRIVATE AND OFFICIAL NET LIQUID CLAIMS ON THEM, HAS BEEN HIGHLY 'VOLATILE' OVER THE PAST TWENTY FOUR MONTHS. THE TWO MOST ACTIVE COMPONENTS WERE (1) "NON LIQUID SHORT-TERM CLAIMS ON FOREIGNERS" (-\$1,015 MILLION IN 1970 TO -\$1,848 MILLION IN 1971) AND (2) "ERRORS AND OMISSIONS AND OTHER TRANSACTIONS" WHICH WAS \$-9.0 BILLION IN 1970 AND APPROXIMATELY -\$22.0 BILLION IN 1971. THERE IS GREAT DIFFICULTY IN IDENTIFYING THE MANY COMPONENT ITEMS IN THIS ACCOUNT. ESPECIALLY DIFFICULT TO IDENTIFY WERE MANY OF THE SHORT TERM CAPITAL FLOWS DURING 1971. SOME OF THESE FLOWS WERE INTEREST SENSITIVE, POSSIBLY \$8 MILLION, WHILE APPROXIMATELY \$12 MILLION WAS MAINLY SPECULATIVE WITH A POTENTIAL FOR REPATRIATION. IN 1972 IT SEEMS REASONABLE TO ASSUME THAT WITH HIGHER FOREIGN INTEREST RATES, AND THE CURRENT EXPANSIONARY MONETARY POLICY OF THE "FED", LEADING TO GREATER DOMESTIC LIQUIDITY, ONLY ABOUT \$4 BILLION OF THESE SO CALLED "SPECULATIVE FUNDS" WILL RETURN. SHOULD THE "FED" ADOPT, RELATIVELY EARLY IN 1972, A MORE STRINGENT MONETARY POLICY THIS AMOUNT COULD BE IN EXCESS OF \$4.0 BILLION. FURTHER, IN THE ABSENCE OF SPECULATIVE PRESSURES IN 1972, IT IS ASSUMED THAT NET "NONLIQUID SHORT TERM CLAIMS ON FOREIGNERS" WILL DECREASE BY \$0.4 BILLION. WITH A SLOWING OF THE RATES OF INTERNATIONAL CURRENCY FLOWS, "ERRORS AND OMISSIONS" (EXCLUDING "OTHER ITEMS") SHOULD DECREASE BY ABOUT \$6.8 BILLION IN 1972.

3.7

### THE OFFICIAL RESERVE TRANSACTIONS (\$19.8)

THE OFFICIAL RESERVE SETTLEMENTS TRANSACTIONS INCLUDE:

- (1) NET LIQUIDITY BALANCE
- (2) SHORT TERM PRIVATE CAPITAL FLOWS
  - (A) SHORT TERM LIQUID CLAIMS REPORTED BY U.S. BANKS
  - (B) SHORT TERM LIQUID CLAIMS REPORTED BY U.S. NON-BANKING CONCERNS
  - (C) U.S. LIQUID LIABILITIES TO FOREIGN AGENCIES

THE NET LIQUIDITY BALANCE FOR 1972 HAS BEEN FORECAST UNDER OUR SET OF ASSUMPTIONS AT -\$10.0 BILLION. ITEMS 2(A) AND 2(B), WHILE HISTORICALLY EXHIBITING CYCLICAL FLUCTUATIONS, HAVE BEEN RELATIVELY INSIGNIFICANT WHEN COMPARED TO 2(C) "U.S. LIQUID LIABILITIES TO FOREIGNERS". IT IS ASSUMED THAT IN 1972, WITHOUT THE SPECULATIVE PRESSURES OF DEVALUATION, THIS ITEM WILL BE APPROXIMATELY IN THE SAME ORDER OF THE 1970 FLOW AND THAT THE NET BALANCE ON "SHORT TERM PRIVATE CAPITAL FLOWS" WILL BE IN THE MAGNITUDE OF \$3.8 BILLION.

### 3.8 SUMMARY

THE SLOWING DOWN OF NET SHORT-TERM CAPITAL OUTFLOWS FOR 1972 IS PREDICATED UPON:

- (1) A RENEWED CONFIDENCE IN THE NEW EXCHANGE RATES. WITH THE MAJOR WORLD TRADING NATIONS COMMITTED TO 'HOLDING THE LINE' IT APPEARS SAFE TO SAY THAT THESE NEW RATES, WITH POSSIBLY SOME ALTERATIONS (SUCH AS THE YEN), WILL HOLD THROUGH 1973. IF THIS CONFIDENCE DOES MATERIALIZE, THEN THERE SHOULD BE A SLACKENING IN SPECULATIVE OUTFLOWS.
- (2) THE RECOVERY OF THE U.S. ECONOMY AND THE GROWTH OF INVESTMENT OPPORTUNITIES SHOULD ENCOURAGE A LARGE PERCENT OF THE PURELY SPECULATIVE, NON-INTEREST SENSITIVE, FLOWS TO BE REPATRIATED.
- (3) THE RETURN OF THESE SPECULATIVE MONIES SHOULD ALSO BE ASSISTED BY A PREDICTED CLOSING IN THE INTEREST DIFFERENTIALS. THIS CLOSING HAS ALREADY STARTED TO TAKE PLACE AND SHOULD CONTINUE AS A RESULT OF A RESURGENT ECONOMY<sup>1</sup>, AND POSSIBLY AS RESULT OF TIGHTER MONETARY POLICIES THAT ARE PREDICTED FOR LATE 1972. FURTHER, IT IS BELIEVED THAT WESTERN EUROPE AND JAPAN WILL EXPAND THEIR MONETARY SUPPLY IN AN EFFORT TO GET THEIR ECONOMIES MOVING. THIS WILL HAVE THE EFFECT OF LOWERING THE INTEREST

<sup>1</sup> THIS ASSUMES AN IMPLICIT COST IN EXCESS OF RETURNS TO U.S. SPECULATORS IN DECREMENTING THEIR REAL BALANCE BY LEAVING THEM ABROAD.

STRUCTURE IN THEIR MONETARY MARKETS, THEREBY ACCELERATING THE CONVERGENCE IN THE RATES BETWEEN THE U.S. AND ITS MAJOR TRADING PARTNERS.

THE CONSERVATIVE ESTIMATE IN NET SHORT TERM CAPITAL OUTFLOWS WAS BASED ON THE LEADS AND LAGS INHERENT IN ANY ECONOMIC PHENOMENA TAKING EFFECT. IT IS THOUGHT THAT THESE NET CAPITAL OUTFLOWS, IF THE ABOVE ASSUMPTIONS HOLD TRUE, WILL BE APPRECIABLY REDUCED BY 1973.

#### 4. THE IMPACT OF CURRENCY REALIGNMENT ON THE AIRLINE INDUSTRY

##### 4.0 OBJECTIVES

THIS SECTION WILL CONCERN ITSELF WITH A GENERAL REVIEW OF THE CURRENT INTERNATIONAL MONETARY CRISIS AS IT AFFECTS THE AIRLINE INDUSTRY. SOME EXAMPLES OF ANTICIPATED EFFECT ON THE INDUSTRY AND INDIVIDUAL AIRLINES ARE DISCUSSED. HOWEVER, NO PRETENSE IS MADE THAT ALL POSSIBLE REPERCUSSIONS ARE CONSIDERED. THE MAIN THRUST OF THIS SECTION IS TO REVIEW THE CURRENT DISEQUILIBRIUM CONDITIONS ON THE AIRLINE INDUSTRY INHERENT TO MAJOR CURRENCY REVALUATIONS AND TO SUGGEST THE BASIC CONCEPT TO BE USED IN DEVELOPING AN AGGREGATE MODEL FOR PREDICTING THE FUTURE DEVELOPMENT OF TRAFFIC IN THE CONTEXT OF A NEW SET OF CURRENCY REALIGNMENTS, AND GOVERNMENT CONTROLS ESTABLISHED AND THE NEW ECONOMIC POLICY (N.E.P.).

##### 4.1 BACKGROUND

ON SATURDAY, 18 DECEMBER 1971, IT WAS ANNOUNCED THAT THE U.S. WOULD IN TERMS OF GOLD OFFICIALLY DEVALUE THE DOLLAR BY 7.88 PERCENT. FURTHER, CONCURRENT WITH THE U.S. DOLLAR DEVALUATION THERE WILL BE OFFICIAL APPRECIATIONS OF THE OTHER MAJOR CURRENCIES. THIS LATTER ACTION WAS TIED TO A RESCINDING OF THE U.S. 10 PERCENT IMPORT SURTAX. THE NET EFFECT IS APPROXIMATELY A 15 PERCENT DEPRECIATION OF THE U.S. DOLLAR. IN THIS VEIN, IT IS WORTH NOTING THAT BECAUSE OF DIFFERENCES IN THE BALANCE OF PAYMENTS AND IN THE VALUATION OF THE VARIOUS NATIONAL RESERVE STRUCTURES, A UNIFORM INTERNATIONAL REVALUATION COULD NOT BE EXPECTED.

THE BASIC REASON FOR LONG-TERM DISEQUILIBRIUM IN THE BALANCE OF PAYMENTS BETWEEN COUNTRIES IS THE PERPETUATION OF AN ARTIFICIAL MECHANISM WHICH AFFECTS STABILITY IN INTERNATIONAL TRANSACTIONS. COUNTRIES NORMALLY REACT BY HOLDING GOLD, SRDs, AND FOREIGN CURRENCY RESERVES AND THEREBY KEEP THE RELATIVE EXCHANGE RATES "STABLE". IN THE CONTEXT OF A WORLD-WIDE SYSTEM OF FREE CURRENCY EXCHANGE, THERE WOULD BE NO DISEQUILIBRIUM. THE ADJUSTMENT WOULD THEN AUTOMATICALLY OCCUR THROUGH CHANGES IN THE



RELATIVE EXCHANGE VALUATIONS. THE MAJOR OBJECTIONS TO A WORLD OF FREE FLOATING EXCHANGE RATES COME FROM BANKERS AND BUSINESSMEN WHO MAINTAIN THAT THIS SYSTEM WOULD MAKE IT DIFFICULT TO DO BUSINESS ACROSS INTERNATIONAL BOUNDARIES. THE ARGUMENT HERE IS THAT THE INTERTEMPORAL NATURE OF TRADE COMMITMENTS REQUIRES A STABLE SET OF EXCHANGE RATES. IT IS FELT THAT FLUCTUATING RATES WOULD INHIBIT INTERNATIONAL TRADE. IN ADDITION, NATIONS ARE RELUCTANT TO SURRENDER CONTROL OVER THEIR EXCHANGE RATES, SINCE MARKET REVISIONS IN THE RELATIONS OF CURRENCIES HAVE FAR-REACHING EFFECTS ON PRICES, INCOMES, EMPLOYMENT, AND THE STRUCTURE OF INDUSTRY.

THEORETICALLY, A DEVALUATION OF THE DOLLAR SHOULD RAISE THE PRICE OF FOREIGN GOODS AND SERVICES AND HENCE INHIBIT DOLLAR OUTFLOWS BY CURTAILING IMPORTS, FOREIGN TRAVEL, TRANSFER PAYMENTS, U.S. INVESTMENTS ABROAD, ETC. SYMETRICALLY A DEVALUATION SHOULD LOWER THE PRICE OF U.S. GOODS AND SERVICES BY STIMULATING U.S. EXPORTS, (E.G. AIRCRAFT), FOREIGN TRAVEL TO THE U.S., FOREIGN INVESTMENT IN THE U.S. ETC., THEREBY STIMULATING FOREIGN CAPITAL INFLOWS. SUCH AN ADJUSTMENT PROCESS CAN GO AWRY IF THE VARIOUS CURRENCY DEMANDS ARE INELASTIC. THIS WOULD BE THE CASE WHERE THE DEMANDS FOR THOSE GOODS AND SERVICES THAT ENTER INTO INTERNATIONAL TRANSACTIONS ARE THEMSELVES INELASTIC. THIS IS AN IMPORTANT CONSIDERATION FOR MDC IN TERMS OF ITS POTENTIAL MARKET FOR AIRCRAFT SALES.

## 4.2 IMPACT ON TRAFFIC AND AIRLINE REVENUES

### 4.2.1 ELASTICITY CONCEPT AS APPLIED TO THE AIRLINE INDUSTRY

A MODIFICATION IN THE EXCHANGE RATE STRUCTURE WILL AFFECT THE COST OF AIRLINE TRAVEL VIS-A-VIS OTHER COMMODITIES AND THE RELATIVE COST OF TRAVELLING TO DIFFERENT DESTINATIONS (DOMESTIC AND FOREIGN). THESE MODIFICATIONS IN RELATIVE PRICES (SUBSTITUTION EFFECT) WILL INDUCE A REALLOCATION OF CONSUMER PATTERNS

AND IN PARTICULAR A REDISTRIBUTION OF TRAFFIC FLOWS. RESIDENTS OF COUNTRIES WHOSE CURRENCY HAS RELATIVELY APPRECIATED, SUCH AS AUSTRALIA, GERMANY, JAPAN, ETC., WILL FIND IT CHEAPER<sup>1</sup> TO VISIT FOREIGN COUNTRIES WITH LOWER CHANGES IN THEIR EXCHANGE RATES. CONVERSELY, THE OPPOSITE IS TRUE FOR RESIDENTS OF A DEPRECIATED CURRENCY COUNTRY SUCH AS THE U.S.

THE GLOBAL EFFECT OF A CURRENCY REALIGNMENT ON TRAFFIC WILL ULTIMATELY DEPEND UPON THE ELASTICITY OF TRAFFIC DEMAND WITH RESPECT TO FARES EXPRESSED IN CONSTANT DOLLARS (YIELD) AND THE DEGREE OF REVALUATION. TABLE I SUMMARIZES THE EFFECTS OF TRAFFIC DEMAND TO BE ANTICIPATED FROM AN ACTUAL FARE CHANGE AND THE FINAL EQUILIBRIUM POSITION, AFTER THE ADJUSTMENT PROCESS HAS TAKEN PLACE.

UNDER THE EXISTING RATE-DETERMINATION MECHANISM, EXCHANGE VARIATIONS WILL RESULT IN BOTH EXTERNAL AND INTERNAL REPERCUSSIONS ON THE AIRLINE INDUSTRY. THE MOST SALIENT EXTERNAL EFFECT PERTAINS TO AN AIRLINE'S ABILITY TO GENERATE FOREIGN TRAVEL AND THUS INTERNATIONAL CURRENCY INFLOWS. THE INTERNAL EFFECTS ARE REFLECTED ON THE BALANCE SHEET OF THE AIRLINES.

TABLE II ILLUSTRATES THE IMPACT ON AIRLINE REVENUES AND TOURIST EXPENDITURES RESULTING FROM TRAFFIC AND ACTUAL FARE INCREASES. THUS AN AIRLINE WITH AN INELASTIC DEMAND FUNCTION<sup>2</sup> IN THE CASE OF A FARE INCREASE<sup>3</sup> WILL EXPERIENCE A DECREASE IN REVENUE PASSENGERS AND AN INCREASE IN REVENUES. SHOULD THE AIRLINE'S DEMAND FUNCTION BE ELASTIC, A FARE HIKE WILL CAUSE A DECREMENT IN BOTH REVENUE PASSENGERS AND AIRLINE REVENUES. IN THE CASE OF AN AIRLINE THAT OFFERS A FARE DECREASE THERE WILL BE AN INCREASE

<sup>1</sup> EXPRESSED IN CONSTANT DOLLARS

<sup>2</sup> UNLESS OTHERWISE STATED, ELASTICITY OF DEMAND IN THIS PAPER IS TRAVEL ELASTICITY WITH RESPECT TO FARE (PRICE).

<sup>3</sup> IN CONSTANT DOLLARS

TABLE II  
EFFECTS OF FARE CHANGES ON TRAVEL

	A D (P ↓)	M D A (P ↑)	A (P ↑)	D (P ↓)
ELASTICITY OF TRAVEL WITH RESPECT TO FARE*	TRAVEL FROM APPRECIATED CURRENCY AREA TO DEPRECIATED CURRENCY AREA (E.G. EUROPE-U.S.)	TRAVEL FROM DEPRECIATED CURRENCY AREA TO APPRECIATED CURRENCY AREA (E.G. U.S. TO EUROPE)	DOMESTIC TRAVEL WITHIN APPRECIATED AREA (E.G. EUROPE)	DOMESTIC TRAVEL WITHIN DEPRECIATED AREA (E.G. U.S.A.)
INELASTIC	$\Delta R = (\downarrow)$ $\Delta T = (\uparrow)$ $\Delta TE = (\uparrow)$	$\Delta R = (\uparrow)$ $\Delta T = (\downarrow)$ $\Delta TE = (\uparrow)+$	$\Delta R = (\uparrow)$ $\Delta T = (\downarrow)$ $\Delta DER = (\downarrow)$	$\Delta R = (\downarrow)$ $\Delta T = (\uparrow)$ $\Delta DER = (\uparrow)$
UNIT ELASTIC	$\Delta R = 0$ $\Delta T = (\uparrow)$ $\Delta TE = (\uparrow)$	$\Delta R = 0$ $\Delta T = (\downarrow)$ $\Delta TE = (\uparrow)+$	$\Delta R = 0$ $\Delta T = (\downarrow)$ $\Delta DER = (\downarrow)$	$\Delta R = 0$ $\Delta T = (\uparrow)$ $\Delta DER = (\uparrow)$
ELASTIC	$\Delta R = (\uparrow)$ $\Delta T = (\uparrow)$ $\Delta TE = (\uparrow)$	$\Delta R = (\downarrow)$ $\Delta T = (\downarrow)$ $\Delta TE = (\downarrow)+$	$\Delta R = (\downarrow)$ $\Delta T = (\downarrow)$ $\Delta DER = (\downarrow)$	$\Delta R = (\uparrow)$ $\Delta T = (\uparrow)$ $\Delta DER = (\uparrow)$

$$P = \frac{\text{AVERAGE FARE}}{\text{CONSUMER PRICE INDEX}}$$

↑ = INCREASE  
↓ = DECREASE

Δ = CHANGE  
0 = NO CHANGE

TE = TOURIST EXPENDITURES      DER = EXPENDITURES BY RESIDENTS ON DOMESTIC TRAVEL

\*EXPRESSED IN CONSTANT DOLLARS

IN REVENUE PASSENGERS CARRIED AND A DECREMENT IN REVENUES IF ITS DEMAND FUNCTION IS INELASTIC. SHOULD ITS DEMAND FUNCTION BE ELASTIC THEN BOTH REVENUES AND REVENUE PASSENGERS WILL INCREASE<sup>1</sup>.

TABLE 12 SUMMARIZES SOME EMPIRICAL RESULTS REGARDING TRAFFIC ELASTICITY WITH RESPECT TO FARES.

TABLE 12  
AIR TRANSPORTATION  
SOME ESTIMATED PRICE ELASTICITIES BY INVESTIGATOR

RAGNAR FRISCH - GENERAL (ECONOMETRICA, VOL XXVII, PP. 177-96)	-1.10
DAC - ECONOMIC RESEARCH DEPARTMENT (AUREILLE AND NORRIS)	
U.S. DOMESTIC	
TOTAL DOMESTIC	-1.4
AMERICAN	-1.5
EASTERN	-1.9
TWA	-1.0
UNITED	-1.4
BRANIFF	-1.4
CONTINENTAL	-1.2
DELTA	-1.0
NATIONAL	-1.4
ALLEGHENY	-1.4
STRAZHEIM - NORTH ATLANTIC (THE INTERNATIONAL AIRLINE INDUSTRY BROOKINGS INSTITUTE 1969)	
TOTAL DEMAND (1948-65)	-2.00
ADJUSTED TOURIST DEMAND (1954-65)	-2.00

<sup>1</sup>EXAMPLE AVAILABLE ON REQUEST.

4.2.2. IATA FARE INCREASE NEGATED IN U.S. BY PRICE BOARD

ANOTHER CASE THAT MERITS CONSIDERATION IS A SITUATION WHERE IATA MEMBERS WOULD AGREE ON A FARE INCREASE, WHICH WOULD THEN BE NEGATED OR PARTIALLY RESCINDED IN THE U.S. BY THE PRICE BOARD. THIS COULD LEAD TO A DIVERGENCE IN RELATIVE FARES BETWEEN COUNTRIES. SHOULD THIS OCCUR, A TICKET SELLING AT THE NEW IATA RATE IN A FOREIGN COUNTRY COULD POSSIBLY GENERATE MORE REVENUES FOR THE AIRLINE THAN A TICKET OVER THE SAME ROUTE BUT SOLD IN THE U.S. THUS THERE WOULD BE A POSSIBLE REALLOCATION OF SALES EFFORTS BY THE AIRLINES TO INDUCE MORE TRAVEL IN THE HIGHER FARE AREA. SUCH AN ACTION BY THE PRICE BOARD COULD BE INCONSISTENT WITH THE NEW ECONOMIC POLICY (N.E.P.) GOALS IF THE DEMAND FOR FOREIGN TRAVEL BY U.S. RESIDENTS IS ELASTIC WITH RESPECT TO FARE. IN THIS CASE, IT WOULD INDUCE MORE FOREIGN TRAVEL BY U.S. RESIDENTS AND MORE TRAVEL EXPENDITURES ABROAD. ALSO THE RELATIVE PROFIT POSITIONS OF THE AIRLINES WOULD BE AFFECTED DEPENDING UPON THE DISTRIBUTION OF THEIR SALES BETWEEN RESIDENTS AND NON-RESIDENTS.

4.2.3. FARE DIVERGENCES AND MULTI-CARRIER ROUTES UNDER THE NEW CURRENCY REALIGNMENT AND WIDER EXCHANGE BANDS

AN ADDITIONAL PROBLEM IN THE GENERAL CONTEXT OF THIS STUDY ARISES WHEN A CARRIER SELLS A TICKET IN THE U.S. OVER A ROUTE WHICH REQUIRES A CHANGE TO A FOREIGN CARRIER. IN THIS CASE AIRLINES HAVE TRADITIONALLY AGREED TO TRANSFER A PERCENTAGE OF THE FARE PAID TO THE INITIAL CARRIER TO THOSE CARRIERS THAT MAKE POSSIBLE THE COMPLETION OF THE TRIP. THIS TRANSFER OF FUNDS IS BASED UPON A PRORATING FORMULA. UNDER THE NEW RULES PERTAINING TO THE FLUCTUATIONS OF EXCHANGE RATES, CURRENCIES MAY FLUCTUATE WITHIN A RANGE OF  $\pm 2.25$  PERCENT (VERSUS THE OLD RANGE OF  $\pm 1.00$  PERCENT). THIS COMBINED WITH A FIXED FARE

STRUCTURE WILL MAKE THE STANDARD PRORATING FORMULAE MORE DIFFICULT TO IMPLEMENT. UNDER THIS CURRENT PRO-RATING SCHEME AND FIXED FARES, THESE WIDER FLUCTUATIONS IN CURRENCY EXCHANGE RATES WILL CAUSE A REDISTRIBUTION OF AIRLINE REVENUES AMONG PARTICIPATING CARRIERS. IT IS CONCEIVABLE THAT AIRLINES INCURRING A LOSS OVER A SUBSTANTIAL PERIOD OF TIME WOULD WANT TO IMPLEMENT COUNTERACTING STRATEGIES. THIS COULD LEAD TO A CHAIN OF RETALIATORY ACTIONS.

#### 4.3. IMPACT ON IATA

IATA MAY HAVE BECOME A "VICTIM" OF THE VICISSITUDES OF THE CURRENT INTERNATIONAL MONETARY CRISIS AND THE U.S. NEW ECONOMIC POLICY. SINCE WORLD WAR II IATA'S POWER TO SET RATES, AND EFFECTIVELY CARTELIZE THE INTERNATIONAL AIRLINE INDUSTRY, HAS BEEN STEADILY ERODED BY (1) ITS INABILITY TO RESTRICT ENTRY OF NEW CARRIERS MAINLY AS A RESULT OF BILATERAL AGREEMENTS, AND (2) ITS INABILITY TO ENFORCE DECISIONS. IATA DECREES CAN BE OVERTURNED OR IGNORED BY SUCH ACTIVITIES AS RECOURSE TO "OPEN FARES", BILATERAL AGREEMENTS ON FARES AND SCHEDULES. FURTHERMORE, ANY FARE INCREASE FOR FLIGHTS ORIGINATING IN THE U.S. WILL HAVE TO BE CONSISTENT WITH THE DECISIONS OF THE PRICE BOARD. THE DEMISE OF CARTELS HAS HISTORICALLY BEEN CHARACTERIZED BY THEIR INABILITY TO RESTRICT ENTRY AND EROSION OF ENFORCEMENT POWERS ESPECIALLY IN REGARD TO RATE MAKING. THE RECENT HISTORY OF THE AIRLINE INDUSTRY SHOWS THAT IT IS BECOMING MORE PRICE COMPETITIVE AND LESS FORMALLY STRUCTURED. THE SAME COMPETITIVE FORCES ARE AT WORK IN OTHER PARTS OF THE WORLD. THE PROLIFERATION OF NATIONS AND NATIONAL AIRLINES IN ASIA, AFRICA, AND THE PACIFIC ARE FURTHER CONSTRAINING THE EFFICACY OF IATA. THUS THE N.E.P. AND THE CURRENCY REALIGNMENT AND THE CONTINUING CRISIS STATUS IN THE FIXED EXCHANGE SYSTEM WILL BE ADDITIONAL BURDENS TO IATA. IT IS DOUBTFUL THAT

IATA WILL SUFFER A SUDDEN DEMISE, BUT ITS DAYS AS AN EFFECTIVE RATE--REGULATORY BODY SEEM ON THE WANE. IF THE ATLANTIC EXAMPLE IS A GOOD INDICATOR, IT IS LIKELY THAT THE INDUSTRY WILL BECOME INCREASINGLY PRICE COMPETITIVE WITHIN A MUCH LESS FORMALIZED STRUCTURE. IF THIS TENDENCY WERE TO MATERIALIZE, THERE WOULD BE AN ADDITIONAL INCENTIVE TO INVESTIGATE TRAVEL ELASTICITIES WITH RESPECT TO PARES, IN ORDER TO PREDICT FUTURE TRAVEL PATTERNS. IN ADDITION, SINCE ALL AIRLINES OFFER A SLIGHTLY DIFFERENTIATED PRODUCT (AND ARE PRICE SEEKERS) SUCH A STUDY WOULD BE HELPFUL IN PROVIDING INFORMATION REGARDING AN AIRLINE'S OPTIMAL RATE STRUCTURE. SUCH AN ANALYSIS SHOULD ALSO YIELD RESULTS, WHICH COULD PROVE HELPFUL IN ASSISTING MDC MANAGEMENT TO FORGE MARKETING STRATEGIES.

5. IMPACT OF CURRENCY REALIGNMENT ON THE AIRFRAME MANUFACTURING INDUSTRY (A300-B PROGRAM)

5.0. INTRODUCTION

THIS SECTION WILL CONSIDER ONLY THE IMMEDIATE SPECIFIC EFFECTS OF THE GENERAL CURRENCY REALIGNMENTS SINCE 1969 UPON THE PRICE STRUCTURE OF THE A300-B PROGRAM. DURING THIS PERIOD THERE WERE MANY CURRENCY REVALUATIONS, THE MOST NOTABLE IN THE CONTEXT OF THE A300-B PROGRAM, BEING THE FRENCH DEVALUATION OF 1969 AND THE OVERALL CURRENCY REALIGNMENT OF 18 DECEMBER 1971. THIS ANALYSIS WILL EXCLUDE THE EFFECTS OF THE PRICE ESCALATION FORMULAE USED BY THE VARIOUS COUNTRIES PARTICIPATING IN THE PROGRAM. IN ADDITION, THE POSSIBILITIES OF INTERNATIONAL FACTOR SUBSTITUTION, CHANGES IN BASE PRICES, REVISIONS OF ESCALATION FORMULAE, WEALTH AND INCOME EFFECTS, THE ROLE OF GOVERNMENT SUBSIDIES, ETC., WILL NOT BE CONSIDERED. HOWEVER, IT IS RECOGNIZED THAT A FULL REVIEW OF THE A300-B PROGRAM WOULD REQUIRE THAT THESE FACETS, AND MANY MORE, BE INTEGRATED INTO ANY INVESTIGATION PURPORTING TO BE A COMPREHENSIVE INVESTIGATION OF THE LONG-RUN EFFECTS OF CURRENCY REALIGNMENTS ON THE A300-B PROGRAM.

5.1. COMPARATIVE PRICE CHANGES DUE TO CURRENCY REVALUATIONS

TABLE 13 "COMPARATIVE PRICE CHANGES DUE TO CURRENCY REVALUATIONS" COMPARES THE JANUARY 1969 PRICE OF THE A300-B, EXCLUDING THE U.S. MADE POOS AND ENGINES, AT THE EXCHANGE RATE PREVAILING THEN AND AT THE CURRENT EXCHANGE RATE<sup>8</sup>. IT SHOULD BE NOTED THAT BETWEEN THESE TWO DATES THERE WAS CONSIDERABLE VARIATION IN THE RATES AS QUOTED IN TABLE 13.

THE MOST SIGNIFICANT CHANGE IN ANY OF THE PARTICIPATING NATIONS EXCHANGE RATES, EXCLUDING THE GENERAL SMITHSONIAN CURRENCY REALIGNMENT OF 18 DECEMBER 1971, WAS THE CONSIDERABLE DEVALUATION OF THE FRENCH FRANC (-11.11 PERCENT) ON 8 AUGUST 1969. THIS 1969 DEVALUATION EXPLAINS WHY

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<sup>8</sup> 8 MAY 1972



THE PRICE OF THE FRENCH PART, EXPRESSED IN U.S. DOLLARS, DECLINED EVEN THOUGH THE FRANC APPRECIATED RELATIVE TO THE DOLLAR ON 18 DECEMBER 1971 (+3.57 PERCENT). FURTHER, THE CENTRAL BANK OF FRANCE, SINCE THE SMITHSONIAN ACCORD, HAS ALLOWED A TWO TIER INTERNATIONAL EXCHANGE SYSTEM TO EXIST, WHEREBY THERE IS A "COMMERCIAL" RATE AND "FINANCIAL" EXCHANGE RATE FOR THE FRANC. THE BANQUE DE FRANCE PERMITS THE "FINANCIAL" RATE TO FLUCTUATE THE FULL RANGE OF THE SMITHSONIAN MARGINS ( $\pm 2.25$  PERCENT). HOWEVER, IT ACTIVELY INTERVENES TO MAINTAIN THE "COMMERCIAL" RATE AT APPROXIMATELY A 0.20 (\$/F) DOLLAR/FRANC RATIO.

## 5.2. EXCHANGE RATE VARIATION PRICE INCREASES - A-300B

TABLE 13 ILLUSTRATES HOW THE 1969 COMPUTED PRICE OF THE A300-B, EXPRESSED IN U.S. DOLLARS, INCREASED DUE TO THE POST JANUARY 1969 SERIES OF CURRENCY REALIGNMENTS. THE AGGREGATE PRICE INCREASE IN U.S. DOLLARS FOR THE AIRFRAME (EXCLUDING POOS) WAS 11.52 PERCENT. THE PRESENT SYSTEM OF PAYMENT FOR THE A300-B REQUIRES THAT EACH PARTICIPATING MANUFACTURER BE PAID DIRECTLY BY THE CUSTOMER IN THE NATIONAL CURRENCY OF THE MANUFACTURER. HOWEVER, AN AIRLINE CONTEMPLATING THE PURCHASE OF AN A300-B WOULD MAINLY BE CONCERNED WITH THE AGGREGATE PRICE (SEE TABLE 13) EXPRESSED IN THE NATIONAL CURRENCY OF THE AIRLINE. THUS A U.S. AIRLINE WOULD HAVE TO PAY A HIGHER TOTAL PRICE FOR THE A300-B AS A RESULT OF THESE CURRENCY REALIGNMENTS. AS OF TODAY THERE HAVE BEEN NO STATED CHANGES IN PRICE FORMULAE TO ADJUST FOR CURRENCY REALIGNMENTS.

## 5.3. SUMMARY

SOME OF THE MOST OBVIOUS IMMEDIATE SHORT-TERMS EFFECTS OF THE CURRENCY REALIGNMENTS ARE:

- AN IMPROVEMENT IN THE COMPETITIVE STATUS OF U.S. AIRFRAME MANUFACTURERS PRODUCING A SUBSTITUTE PRODUCT (E.G. DC-10) FOR THE A300-B.

9 AN INCREASED INDUCEMENT FOR THE EUROPEAN NATIONS PARTICIPATING IN THIS PROGRAM TO CONTINUE PURCHASING U.S. BUILT PARTS FOR THE A300-B.

9 A POSSIBLE DISINCENTIVE TO MULTINATIONAL COOPERATION IN AN ENVIRONMENT OF FLUCTUATING EXCHANGE RATES, ESPECIALLY IF NO ALLOWANCE IS MADE IN THE PRICE ESCALATION CLAUSES FOR SUCH CHANGES. THIS IS PARTICULARLY TRUE FOR THE FRENCH IN TERMS OF THE U.S. MARKET. USING THIS EXAMPLE, THE PRICE OF THEIR INPUTS TO THE A300-B HAS BEEN EXOGENOUSLY INCREASED BY 11.11 PERCENT DUE LARGELY TO THE VERY SIGNIFICANT INCREASE IN THE DOLLAR/MARK (\$/M) EXCHANGE RATE.

AS MENTIONED ABOVE, THIS ANALYSIS TOUCHES ONLY LIGHTLY UPON THE MOST OBVIOUS IMMEDIATE EFFECTS OF DEVALUATION ON THE A300-B PROGRAM. IT WOULD NOT BE DIFFICULT TO ENVISAGE CHANGES IN THE CURRENT PROGRAM INVOLVING NEW PRICE ESCALATION FORMULAE, SUBSTITUTION OF LOWER COST INPUTS FOR HIGHER COST (OR NATIONAL REDISTRIBUTION OF EFFORT), GOVERNMENT INTERVENTION IN THE TERM OF GRANTS AND SUBSIDIES, ETC. IT WOULD SEEM SAFE TO ASSUME HOWEVER, THAT THE PARTICIPATING NATIONS IN THE A300-B PROGRAM WILL ACT TO COUNTER ANY REAL COST DISADVANTAGE THAT DEVALUATION MAY HAVE UPON THEIR INTERNATIONAL SALES EFFORT FOR THE A300-B.

TABLE 13  
EFFECT OF CURRENCY REALIGNMENT ON PRICE OF A300-B

NATION	PRICE EXPRESSED IN DOMESTIC CURRENCY	EXCHANGE RATES RELATIVE TO U.S. \$		1969 PRICE IN U.S. \$ AT DIFFERENT EXCHANGE RATES		PERCENTAGE NATIONAL PARTICIPATION IN U.S. \$		PERCENTAGE CHANGE IN COST IN U.S. \$ DUE REALIGNMENT
		1969	1972*	1969	1972	1969	1972	
FRENCH PART	18,719,540 (FRENCH FRANCS)	.20210	.20000**	3,783,219	3,742,908	39.61	35.15	- 1.04%
U.S. PART	743,688 (U.S. DOLLARS)	1.000	1.000	473,688	473,688	5.00	4.40	0
GERMAN PART	15,460,795 (GERMAN MARKS)	.2500	.3149	3,865,199	4,868,604	40.47	45.71	+ 25.90%
BRITISH PART	599,495 (BRITISH POUNDS)	2.3844	2.6120	1,429,436	1,568,880	14.97	14.70	+ 0.95%
TOTAL	NOT APPLICABLE	N.A.	N.A.	9,551,539	10,652,089	100.00	100.00***	+ 11.52% (= WEIGHTED AVERAGE)

\* 8 MAY 1972 SPOT RATE

\*\* COMMERCIAL RATE

\*\*\* ROUNDING

REPORTS AND BASIC SOURCE DOCUMENTS

ANNUAL REPORTS, INTERNATIONAL MONETARY FUND, WASHINGTON, D.C.

THE MORGAN GUARANTY SURVEY, (SERIES PUBLISHED MONTHLY), THE MORGAN GUARANTY TRUST COMPANY OF NEW YORK.

FINANCE AND DEVELOPMENT QUARTERLY JOURNAL, - A PUBLICATION OF THE INTERNATIONAL WORLD BANK GROUP. (SEE ESPECIALLY NO. 3, 1971 "CURRENCY CONVERTIBILITY THE EXCHANGE RATE SYSTEM".)

UNITED STATES DEPARTMENT OF COMMERCE NEWS, SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION - BUREAU OF ECONOMIC ANALYSIS (A SERIES OF DATA UPDATES RELEASED ON A SEMI-REGULAR BASIS BY THE DEPARTMENT OF COMMERCE).

NATIONAL FOREIGN TRADE COUNCIL BULLETINS, NATIONAL FOREIGN TRADE COUNCIL, INC., NEW YORK, NEW YORK.

WALL STREET JOURNAL, (DAILY NEWSPAPER) NEW YORK, NEW YORK

PAPERS

CAPITAL MOBILITY AND THE INTERNATIONAL FIRM, STEVENS, V.G. - NATIONAL BUREAU OF ECONOMIC RESEARCH INC., NEW YORK, NEW YORK. CONFERENCE ON INTERNATIONAL MOBILITY AND MOVEMENT OF CAPITAL - JAN. 30 - FEB. 1, 1970. SPONSORED BY: UNIVERSITIES - NATIONAL BUREAU COMMITTEE FOR ECONOMIC RESEARCH.

NEXT STEPS IN INTERNATIONAL MONETARY REFORM, REPORT OF THE SUBCOMMITTEE ON INTERNATIONAL PAYMENTS OF THE JOINT ECONOMIC COMMITTEE - CONGRESS OF THE UNITED STATES - SEPT. 1968.

THE CASE FOR THE PAR-VALUE SYSTEM, 1972, KATZ, SAMUEL I. - INTERNATIONAL FINANCE SECTION - DEPT. OF ECONOMICS - PRINCETON UNIVERSITY, PRINCETON, N.J.

THE IMPACT OF U.S. FOREIGN DIRECT INVESTMENT ON U.S. EMPLOYMENT AND TRADE - AN ASSESSMENT OF CRITICAL CLAIMS AND LEGISLATIVE PROPOSALS, NATIONAL FOREIGN TRADE COUNCIL, INC., NEW YORK, NEW YORK.

FINANCIAL CAPITAL FLOWS IN THE BALANCE OF PAYMENTS OF THE UNITED STATES: AN EXPLORATORY STUDY, BRYANT, RALPH C. AND HERDESHOLT, PATRICK H., INTERNATIONAL FINANCE SECTION - DEPARTMENT OF ECONOMICS, PRINCETON UNIVERSITY, 1970.

THE INTERNATIONAL MONETARY BASE AND THE EURO DOLLAR MARKET: AN ECONOMETRIC MODEL (EMPIRICAL ESTIMATES), FRATIANNI, MICHAEL AND SAVONA, PAOLO

BASIC TEXT BOOKS

ALLEN, WILLIAM R., AND ALLEN, CLARK LEE, FOREIGN TRADE AND FINANCE, ESSAYS IN INTERNATIONAL ECONOMIC EQUILIBRIUM AND ADJUSTMENT, THE MACMILLAN COMPANY, 1959

JOHNSON, HARRY G., INTERNATIONAL TRADE AND ECONOMIC GROWTH, STUDIES IN PURE THEORY, GEORGE ALLEN AND UNWIN, LTD., 1958

VANEK, JAROSLAV, INTERNATIONAL TRADE: THEORY AND ECONOMIC POLICY, RICHARD D. IRWIN, INC., 1962

KINDLEBERGER PH. D., CHARLES P., INTERNATIONAL ECONOMICS, RICHARD D. IRWIN, INC., 1963

YEAGER, LELAND B., INTERNATIONAL MONETARY RELATIONS, THEORY, HISTORY, AND POLICY, HARPER & ROW, PUBLISHERS, NEW YORK, 1966

ADDITIONAL REFERENCES

1. BRANSON, W. H. FINANCIAL CAPITAL FLOWS IN THE UNITED STATES BALANCE OF PAYMENTS, AMSTERDAM: NORTH-HOLLAND PUBLISHING COMPANY, 1968.
2. \_\_\_\_\_ . "MONETARY POLICY AND THE NEW VIEW OF INTERNATIONAL CAPITAL MOVEMENT" IN BROOKINGS PAPERS ON ECONOMIC ACTIVITY 2 - A. M. OKUM AND G. L. PERY (EDITED), WASHINGTON, D.C.: THE BROOKINGS INSTITUTION, 1970, PP. 245-270.
3. BRYANT, R. C. AND P. H. HENDERSHOFF. FINANCIAL CAPITAL FLOWS IN THE BALANCE OF PAYMENTS: AN EXPLORATORY EMPIRICAL STUDY. PRINCETON STUDIES IN INTERNATIONAL FINANCE NUMBER 25, PRINCETON: PRINCETON UNIVERSITY PRESS, 1970.
4. BERNSTEIN, EDWARD H. THE BALANCE OF PAYMENTS STATISTICS OF THE UNITED STATES: A REVIEW AND APPRAISAL. WASHINGTON, D.C.: UNITED STATES GOVERNMENT PRINTING OFFICE, 1965.
5. CAVES, R. E. AND HARRY G. JOHNSON (EDITORS). READINGS IN INTERNATIONAL ECONOMICS. HOMEWOOD: RICHARD D. IRWIN, INC. 1968.
6. COOPER, RICHARD N. "MACROECONOMIC POLICY ADJUSTMENT IN INTERDEPENDENT ECONOMIES," QUARTERLY JOURNAL OF ECONOMICS, LXXXIII (FEBRUARY 1969), PP. 1-24.
7. DHRYMES, P.J. "ON THE TREATMENT OF CERTAIN RECURRENT NON-LINEARITIES IN REGRESSION ANALYSIS," SOUTHERN ECONOMIC JOURNAL, XXXIII (OCTOBER 1966) PP. 187-196.
8. DUESENBERY, J.G., FROMM, L. KLEIN AND EDWARD KUH (EDITED). THE BROOKINGS MODEL: SOME FURTHER RESULTS. CHICAGO: RAND McNALLY AND COMPANY, 1969.
9. FROMM, GARY AND P. TAUBMAN. POLICY SIMULATION WITH AN ECONOMETRIC MODEL. WASHINGTON, D.C.: THE BROOKINGS INSTITUTION, 1968.
10. GRAY, P.H. "MARGINAL COST OF HOT MONEY," JOURNAL OF POLITICAL ECONOMY, LXXII (APRIL 1964), PP. 189-192.
11. GRILICHES, Z. "DISTRIBUTED LAGS: A SURVEY," ECONOMETRICA, XXXV (JANUARY 1967), PP. 16-49.
12. GRUBEL, H. G. "INTERNATIONALLY DIVERSIFIED PORTFOLIOS," AMERICAN ECONOMIC REVIEW, LVIII (DECEMBER 1968), PP. 1299-1314.

13. HOUTHAKKER, H. S. AND S. P. MAGEE. "INCOME AND PRICE ELASTICITIES IN WORLD TRADE," REVIEW OF ECONOMICS AND STATISTICS, V (MAY 1969), PP. 111-125.
14. JOHNSON, HARRY G. "SOME ASPECTS OF THE THEORY OF ECONOMIC POLICY IN A WORLD OF CAPITAL MOBILITY," ESSAYS IN HONOR OF MARCO FANNO, ED. TULLIO BAGIOTTI, PADNA, 1966, PP. 345-354.
15. JORGENSON, D.W. "ANTICIPATIONS AND INVESTMENT BEHAVIOR," IN J.S. DUESENBERY ET AL. (EDITED). THE BROOKINGS QUARTERLY ECONOMETRIC MODEL OF THE UNITED STATES. CHICAGO: RAND McNALLY AND COMPANY, 1965, PP. 35-92.
16. KENNER, P.B. "SHORT-TERM CAPITAL MOVEMENTS AND THE UNITED STATES BALANCE OF PAYMENTS," THE UNITED STATES BALANCE OF PAYMENTS. HEARINGS BEFORE THE JOINT ECONOMIC COMMITTEE, 88 TH CONGRESS, WASHINGTON, D.C.: GOVERNMENT PRINTING OFFICE, 1963, PP. 153-191.
17. KINDLEBERGER, C.P. BALANCE OF PAYMENTS DEFICITS AND THE INTERNATIONAL MARKET FOR LIQUID LIQUIDITY. ESSAYS IN INTERNATIONAL FINANCE NUMBER 46, PRINCETON: PRINCETON UNIVERSITY PRESS, 1965.
18. KOPITS, G.F. "DIVIDEND REMITTANCE BEHAVIOR WITHIN THE INTERNATIONAL FIRM: A THEORETICAL AND EMPIRICAL ANALYSIS," OFFICE OF TAX ANALYSIS, UNITED STATES DEPARTMENT OF TREASURY, JUNE 1971.
19. KRAUSE, L.B. "A PASSIVE BALANCE-OF-PAYMENTS STRATEGY FOR THE UNITED STATES," IN A.M. OKUM AND G. L. PERRY (EDITORS) BROOKINGS PAPERS ON ECONOMIC ACTIVITY 3, WASHINGTON, D.C.: THE BROOKINGS INSTITUTION, 1970, PP. 329-368.
20. KUH, E. CAPITAL STOCK GROWTH: A MICRO-ECONOMIC APPROACH. AMSTERDAM: NORTH HOLLAND PUBLISHING COMPANY, 1963.
21. KWACK, S. Y. "A MODEL OF THE UNITED STATES INTERNATIONAL TRANSPORTATION ACCOUNT, 1960 III - 1967 IV," JOURNAL OF INTERNATIONAL ECONOMICS, I (MAY 1971), PP. 215-226.
22. \_\_\_\_\_ . "THE STRUCTURE OF INTERNATIONAL INTEREST RATES: AN EXTENSION OF HENDERSHOTT'S TESTS." JOURNAL OF FINANCE, XXVI (SEPTEMBER 1971), PP. 897-900.
23. \_\_\_\_\_ . "THE DETERMINATION OF UNITED STATES IMPORTS AND EXPORTS: A DISAGGREGATED QUARTERLY MODEL, 1960 III - 1967 IV," TO BE PUBLISHED IN SOUTHERN ECONOMIC JOURNAL.

24. \_\_\_\_\_ . "EFFECTS OF INCOME AND PRICES ON TRAVEL SPENDING ABROAD, 1960 III - 1967 IV," TO BE PUBLISHED IN INTERNATIONAL ECONOMIC REVIEW.
25. \_\_\_\_\_ . "EFFECTS OF INTEREST RATES ON FOREIGN INVESTMENT INCOME," TO BE PUBLISHED IN QUARTERLY REVIEW OF BUSINESS AND ECONOMICS.
26. \_\_\_\_\_ . "A MODEL OF FOREIGN DIRECT INVESTMENT AND EARNING BEHAVIOR: THE UNITED STATES EXPERIENCE 1960 III - 1967 IV," PAPER PRESENTED AT THE LINK PROJECT CONFERENCE HELD AT NEW PORTS, RHODE ISLAND, SEPTEMBER 1971.
27. \_\_\_\_\_ . "A MODEL OF UNITED STATES DIRECT INVESTMENT: A NEOCLASSICAL APPROACH," PAPER PRESENTED AT THE ANNUAL MEETING OF THE ECONOMETRIC SOCIETY HELD AT NEW ORLEANS, LOUISIANA. DECEMBER 1971.
28. \_\_\_\_\_ . "A DISAGGREGATED MODEL OF FINANCIAL FLOWS BETWEEN THE UNITED STATES AND FOREIGN REGIONS." UNPUBLISHED MIMEOGRAPH, 1971.
29. \_\_\_\_\_ . "A DISAGGREGATED MODEL OF CAPITAL FLOWS BETWEEN THE UNITED STATES BANKS AND FOREIGN REGIONS." UNPUBLISHED MIMEOGRAPH, 1971.
30. KWACK, S. Y. "THE DETERMINANTS OF UNITED STATES INTERNATIONAL TRANSACTIONS OF MISCELLANEOUS SERVICES AND OF PRIVATE REMITTANCES," UNPUBLISHED MIMEOGRAPH, 1970.
31. LAFFER, A. B. "INTERNATIONAL FINANCIAL INTERMEDIATION: INTERPRETATION AND EMPIRICAL ANALYSIS." PAPER PRESENTED AT THE CONFERENCE ON INTERNATIONAL MOBILITY AND MOVEMENT OF CAPITAL, THE BROOKINGS INSTITUTION, JANUARY 30- FEBRUARY 1, 1970. WASHINGTON, D.C.
32. LEAMER, E. L. AND ROBERT M. STERN. QUANTITATIVE INTERNATIONAL ECONOMICS. BOSTON, ALLYN AND BACON, INC. 1970.
33. MACHLUP, F. "THE TRANSFER GAP OF THE UNITED STATES," BANCA NAZIONALE DEL LAVORO QUARTERLY REVIEW, 86 (SEPTEMBER 1968), PP. 295-238.
34. MARKIN, JOHN H. "A FRAMEWORK FOR ANALYSIS OF POLICIES FOR INTERNAL AND EXTERNAL BALANCE," UNPUBLISHED MIMEOGRAPH, 1971.
35. MILLER, N.C. AND M. V. N. WHITMAN. "A MEAN-VARIANCE ANALYSIS OF UNITED STATES LONG-TERM PORTFOLIO FOREIGN INVESTMENT," QUARTERLY JOURNAL OF ECONOMICS, LXXXIV (MAY 1970), PP. 175-196.
36. MODIGLIANI, F. AND R. SUTCH. "INNOVATION IN INTEREST POLICY," AMERICAN ECONOMIC REVIEW. PAPERS AND PROCEEDINGS, LVI (MAY 1966), PP. 178-197.



37. MUNDELL, ROBERT A. "THE APPROPRIATE USE OF MONETARY AND FISCAL POLICY FOR INTERNAL AND EXTERNAL STABILITY," IMF STAFF PAPERS, IX (MARCH 1962) PP. 70-77.
38. \_\_\_\_\_, "THE INTERNATIONAL DISEQUILIBRIUM SYSTEM," INTERNATIONAL ECONOMICS, NEW YORK: THE MACMILLAN COMPANY, 1968, PP. 217-232.
39. PRACHOWNY, M. F. J. A STRUCTURAL MODEL OF THE UNITED STATES BALANCE OF PAYMENTS, AMSTERDAM: NORTH-HOLLAND PUBLISHING COMPANY, 1969.
40. RHOMBERG, R. R. "CANADA'S FOREIGN EXCHANGE MARKET: A QUARTERLY MODEL," IMF STAFF PAPERS, VII (APRIL 1960), PP. 439-456.
41. RHOMBERG, R. R. AND L. BOISSONNEAULT. "EFFECTS OF INCOME AND PRICE CHANGES ON THE UNITED STATES BALANCE OF PAYMENTS," IMF STAFF PAPERS, XI (MARCH 1964), PP. 59-124.
42. SALANT, WALTER S. "INTERMEDIATION AS AN EXPLANATION OF ENDING 'DEFICITS' IN THE BALANCE OF PAYMENTS." PAPER PRESENTED AT THE CONFERENCE ON INTERNATIONAL MOBILITY AND MOVEMENT OF CAPITAL. THE BROOKINGS INSTITUTION, JANUARY 30 - FEBRUARY 1, 1970. WASHINGTON, D. C.
43. STEVENS, G. V. G. "FIXED INVESTMENT EXPENDITURES OF FOREIGN MANUFACTURING AFFILIATES OF UNITED STATES FIRMS: THEORETICAL MODELS AND EMPIRICAL EVIDENCE," YALE ECONOMIC ESSAYS, IX (SPRING 1969), PP. 137-198.
44. STEVENS, G. V. G. "CAPITAL MOBILITY AND THE INTERNATIONAL MOBILITY AND MOVEMENT OF CAPITAL. THE BROOKINGS INSTITUTION, JANUARY 30 - FEBRUARY 1, 1970. WASHINGTON, D. C.
45. THEIL, HENRY. APPLIED ECONOMIC FORECASTING, CHICAGO: RAND McNALLY AND COMPANY, 1966.
46. TOBIN, J. "LIQUIDITY PREFERENCE AS BEHAVIOR TOWARD RISK," REVIEW OF ECONOMIC STUDIES, XXV (FEBRUARY 1958), PP. 65-86.
47. TRIFFIN, ROBERT. "A STATISTICAL FRAMEWORK FOR MONETARY AND INCOME ANALYSIS." IN WILLIAM FELLNER, F. MACHLUP AND R. TRIFFIN (EDITORS). MAINTAINING AND RESTORING BALANCE OF INTERNATIONAL PAYMENTS. PRINCETON: PRINCETON UNIVERSITY PRESS, 1966. PP. 177-198.
48. WILLET, R. D. AND F. FORTE. "INTEREST RATE POLICY AND EXTERNAL BALANCE," QUARTERLY JOURNAL OF ECONOMICS, LXXXIII (MAY 1969), PP. 242-262.
49. WHITMAN, M. V. N. POLICIES FOR INTERNAL BALANCE. SPECIAL PAPERS IN INTERNATIONAL ECONOMICS, NUMBER 9, PRINCETON: PRINCETON UNIVERSITY PRESS, 1970.