



# **International migration trends: New data, new perspectives**

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# **There have been important advances in estimating the migrant stock**

- 1. UN Population Division:**

**Estimates of the foreign-born population in receiving countries by sex (2008 Revision)**

- 2. World Bank:**

**Estimates of the foreign-born population by sex, country of origin and destination (2011)**

# Estimates of the foreign-born population

<b>Set</b>	<b>Countries</b>	<b>Dates</b>
<b>UNPD 2008</b>	<b>Destination (include refugees)</b>	<b>1960, 1965, 1970, 1975....2010</b>
<b>WB 2011</b>	<b>Origin and destination (exclude refugees)</b>	<b>1960, 1970, 1980, 1990, 2000</b>

# Global estimates of international migration flows can be derived from the migrant stock

**FB = foreign-born**

**DFB = deaths of foreign-born**

**IFB = immigrating foreign-born**

**EFB = emigrating foreign-born**

$$\text{FB}(2) = \text{FB}(1) - \text{DFB} + \text{IFB} - \text{EFB} \quad \text{hence}$$

$$\text{Net migration FB} = \text{IFB} - \text{EFB} = \text{FB}(2) - \text{FB}(1) + \text{DFB}$$

# Mortality estimates for the country of destination are used to calculate DFB

For each country, WPP 2010 produces the deaths and the population over five-year intervals.

Crude death rates by sex and five-year period can therefore be calculated.

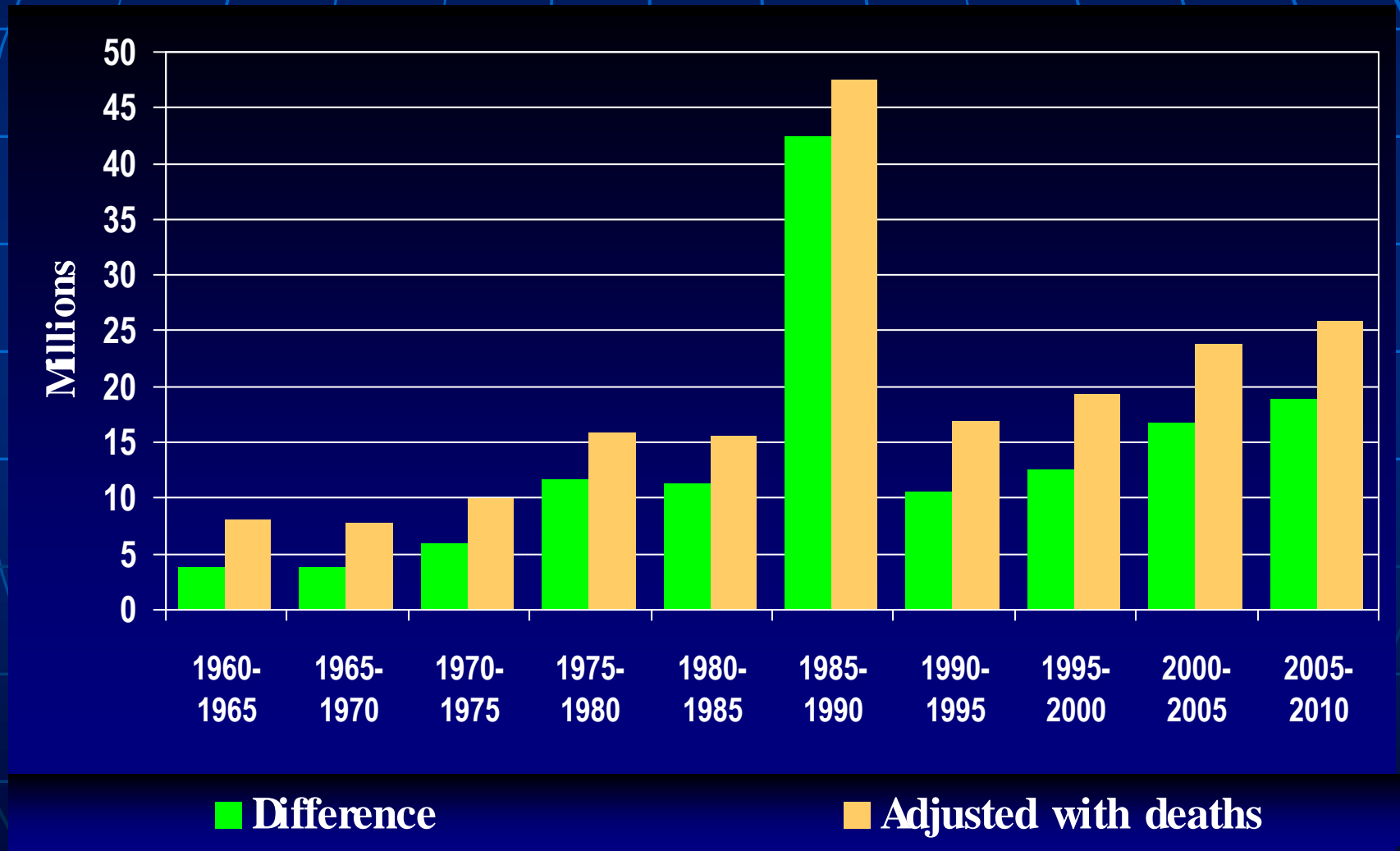
**Assumption:** The foreign-born generally have a lower death rate.

In developed countries:  $0.75 \times \text{CDR}$

In developing countries:  $0.80 \times \text{CDR}$

In CIS (former USSR): CDR

# Global net migration of foreign-born derived with adjustment for deaths compared with difference in stock over time



# Estimating the flows of foreign-born

<b>Set</b>	<b>Type</b>	<b>Periods</b>
<b>UNPD 2008</b>	<b>Net migration of foreign-born to country of destination</b>	<b>Five-year periods from 1960-1965 to 2005-2010</b>
<b>WB 2011</b>	<b>Net migration of foreign-born by origin and destination</b>	<b>Ten-year periods from 1960-1970 to 1990- 2000</b>

**The flow estimates derived from the UN set  
are incomplete**

**The flow estimate over a period t is**

$$f(t) = IFB(t) - EFB(t)$$

**but the overall net migration of a country is**

$$NM(t) = I(t) - E(t) = IFB(t) - EFB(t) - EN(t) + RN(t)$$



# WB 2011: Net flows of foreign-born by origin and destination

1960-1970				
Origin → Destination ↓	C1	C2	C3	...
C1		$f_{21}(t_2)$	$f_{31}(t_3)$	...
C2	$f_{12}(t_1)$		$f_{32}(t_2)$	...
C3	$f_{13}(t_1)$	$f_{23}(t_1)$		...
...				

# The WB set permits estimating the full migration flows

For each country of destination, summing the ROW of estimates produces

$$f_c(t) = IFB_c(t) - EFB_c(t) = \sum_j f_{cj}(t)$$

and for the same country  $c$ , when acting as country of origin, the sum of all COLUMN estimates produces

$$n_c(t) = EN(t) - IN(t) = \sum_i f_{ic}(t)$$

Hence,

$$NMc(t) = f_c(t) - n_c(t)$$

# **RESULTS**

**Note that all net migration estimates presented are in millions**

# The regions considered

**Northern America**

**Europe**

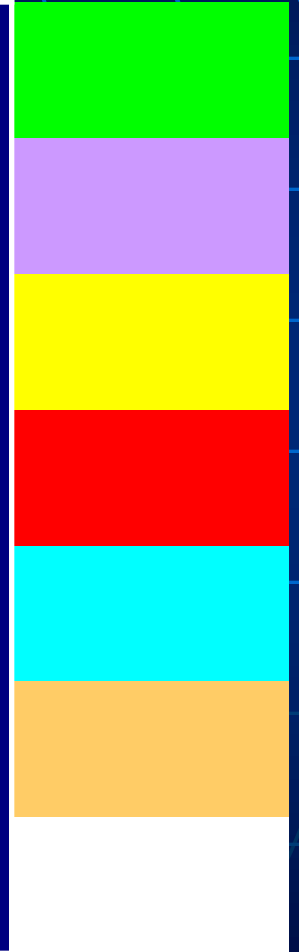
**Asia**

**Africa**

**Oceania**

**USSR**

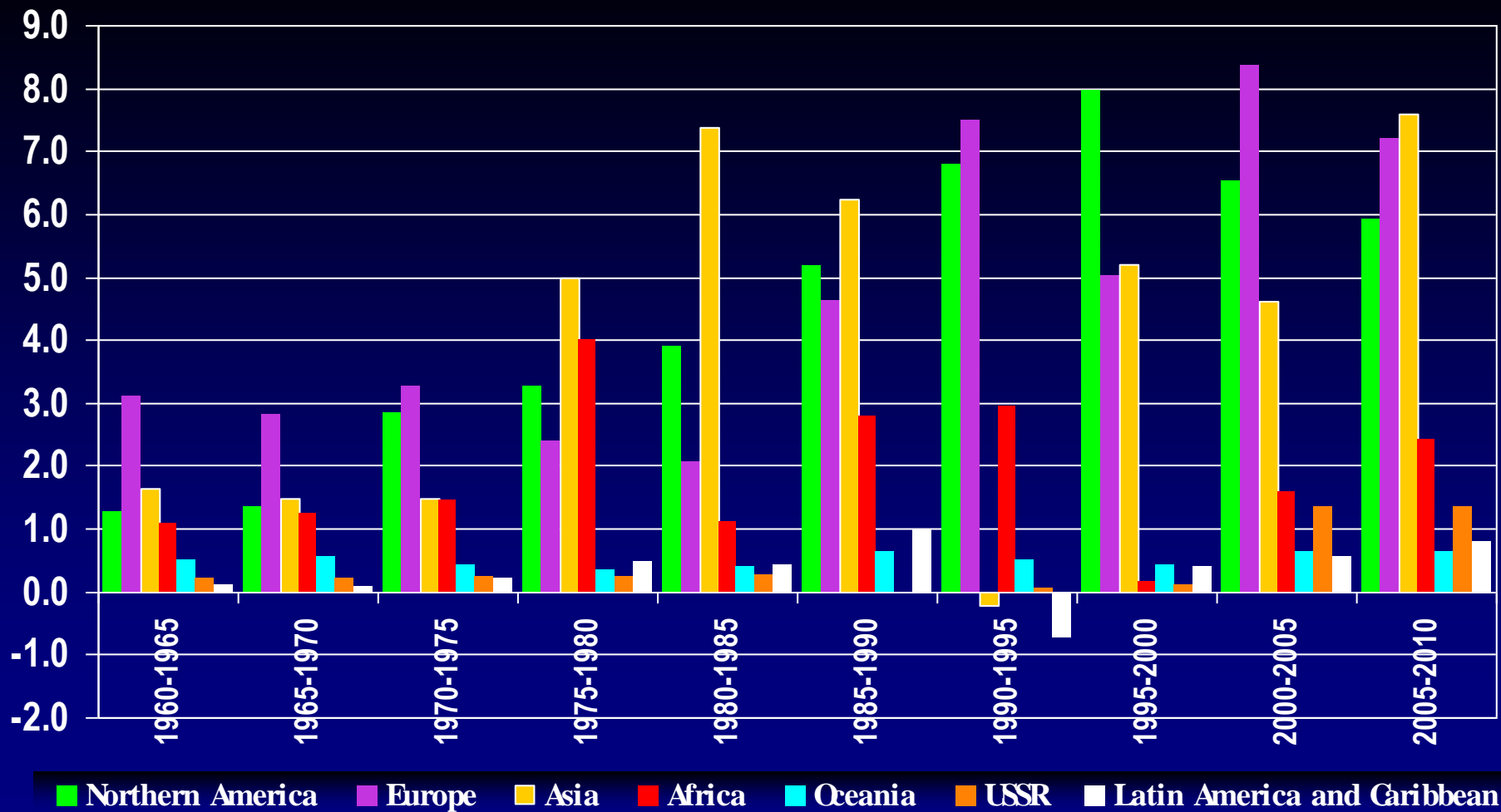
**Latin America and the Caribbean**



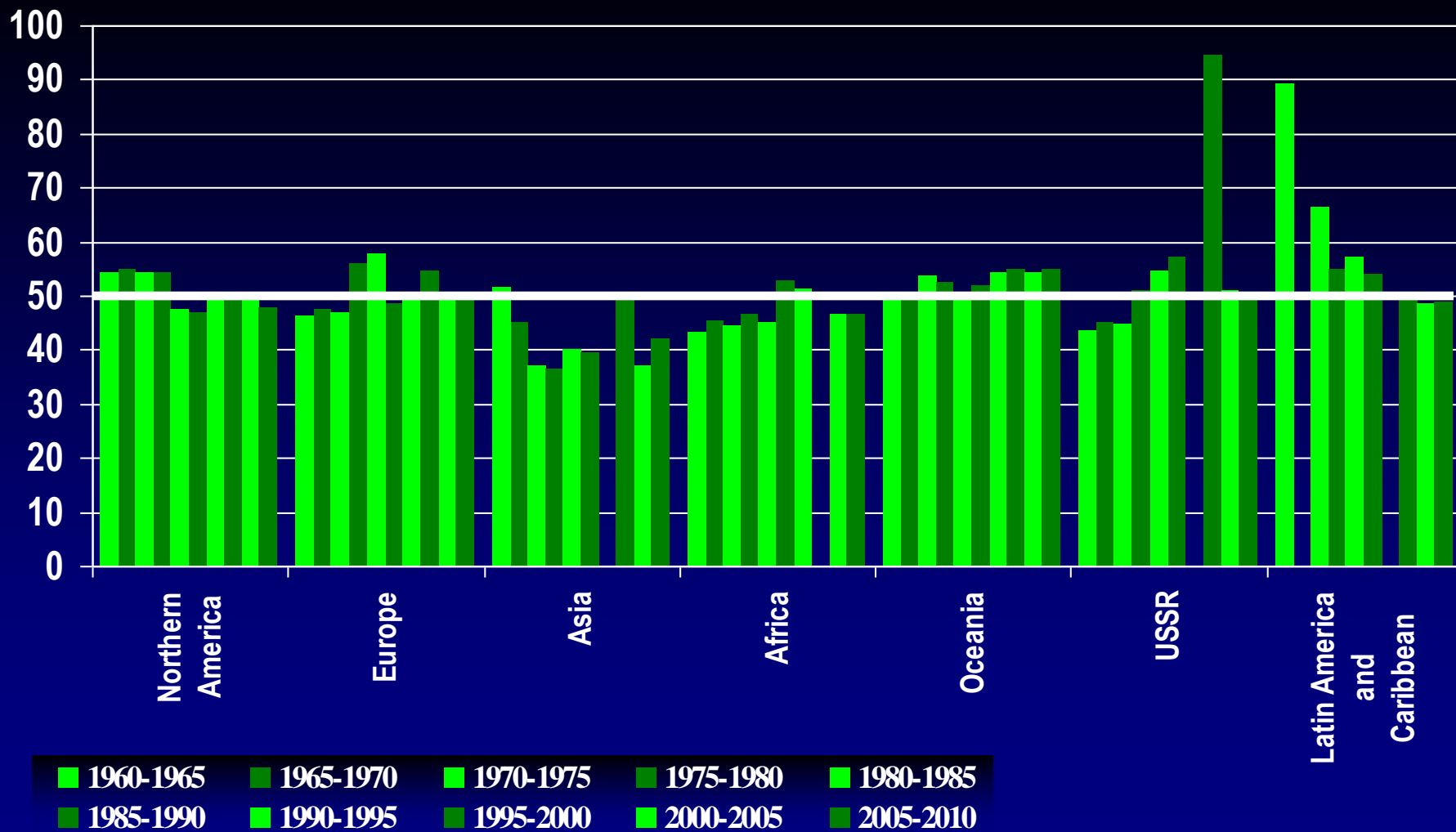


**Net migration of the  
FOREIGN-BORN**

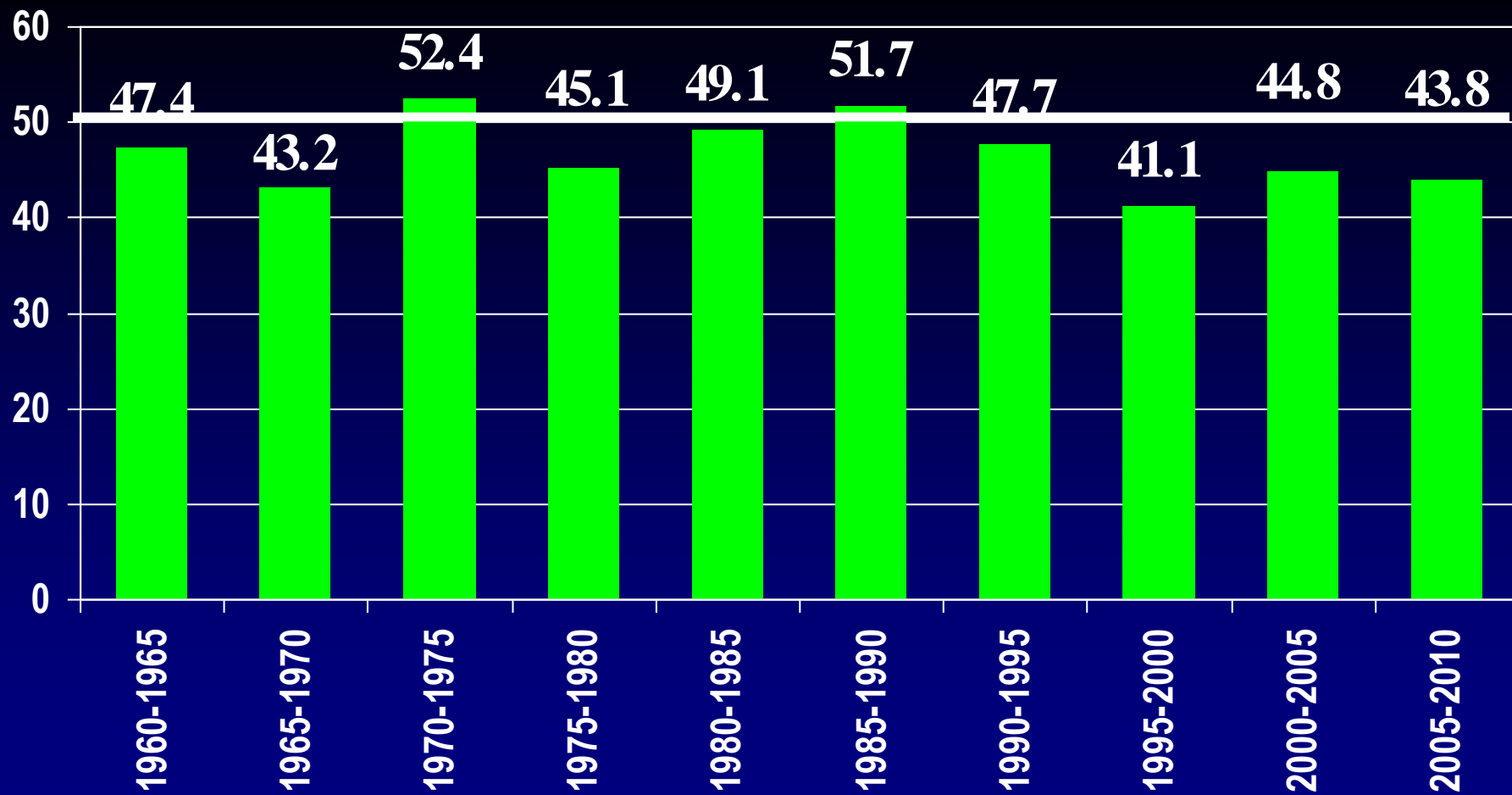
# Net migration of foreign-born (UNPD 2008)



# Percentage female among net number of foreign-born migrants (UNPD 2008)

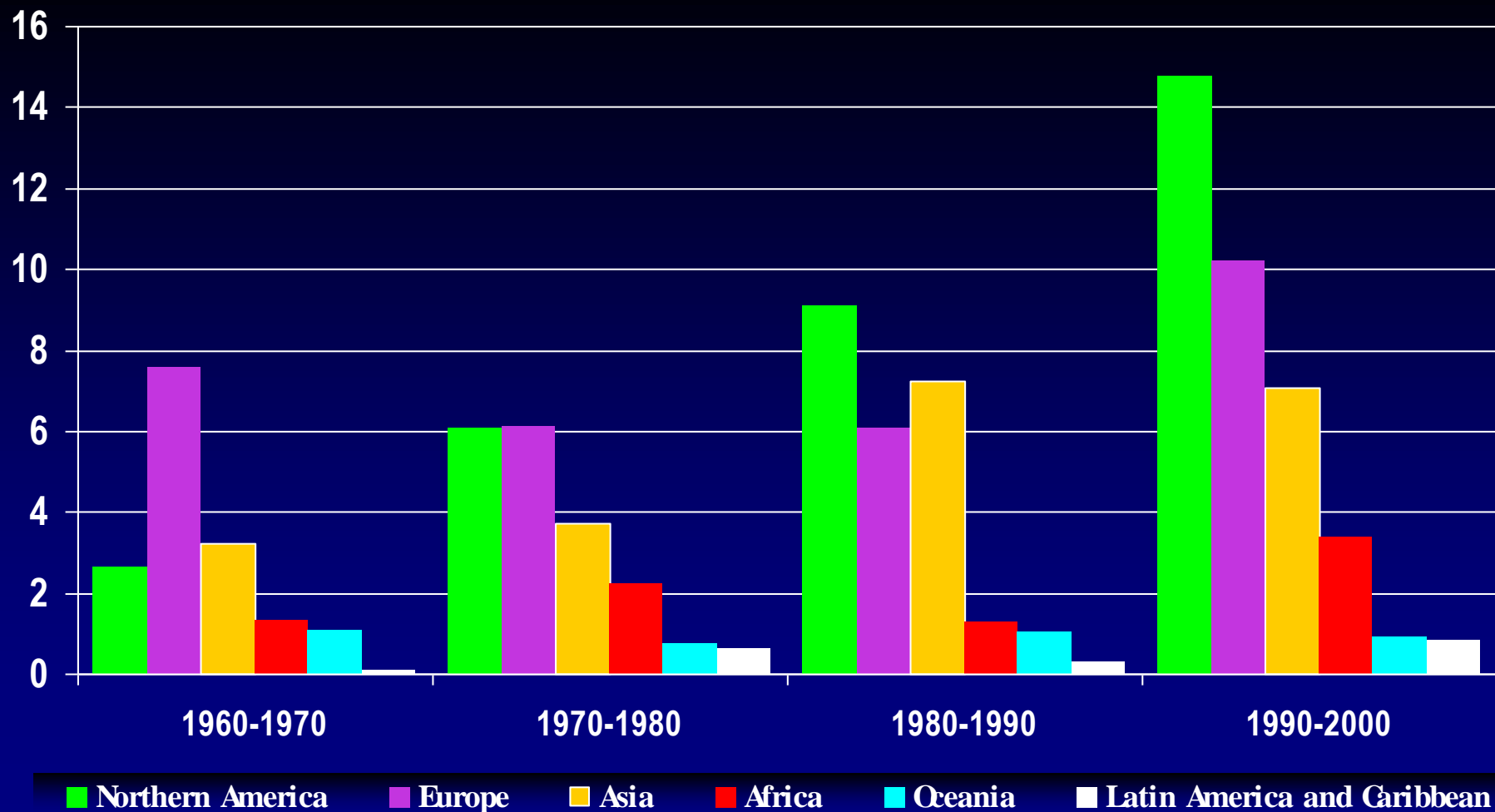


# Percentage female among net number of foreign-born migrants, world (UNPD 2008)

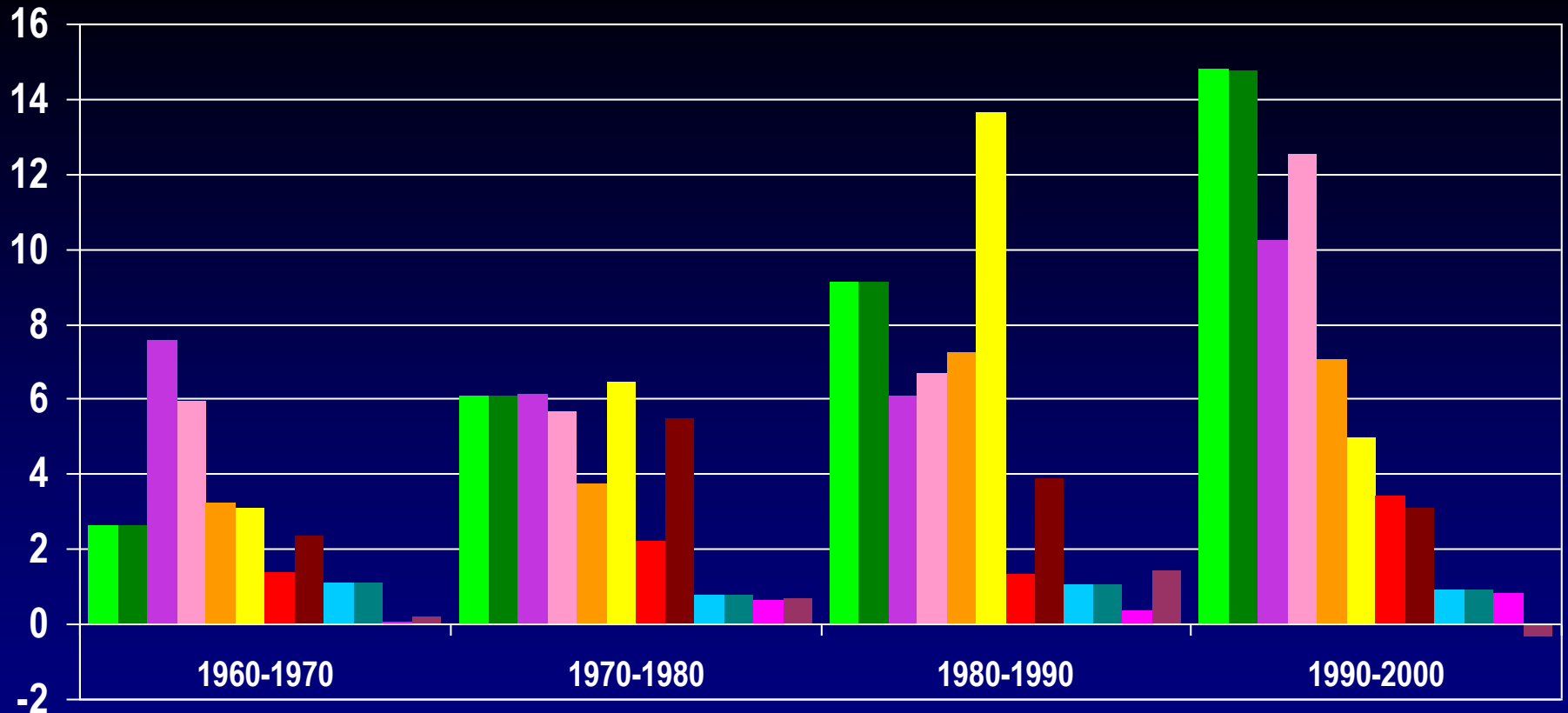




# Net migration of foreign-born (WB 2011)



# Net migration of foreign-born (WB 2011 and UNPD compared)

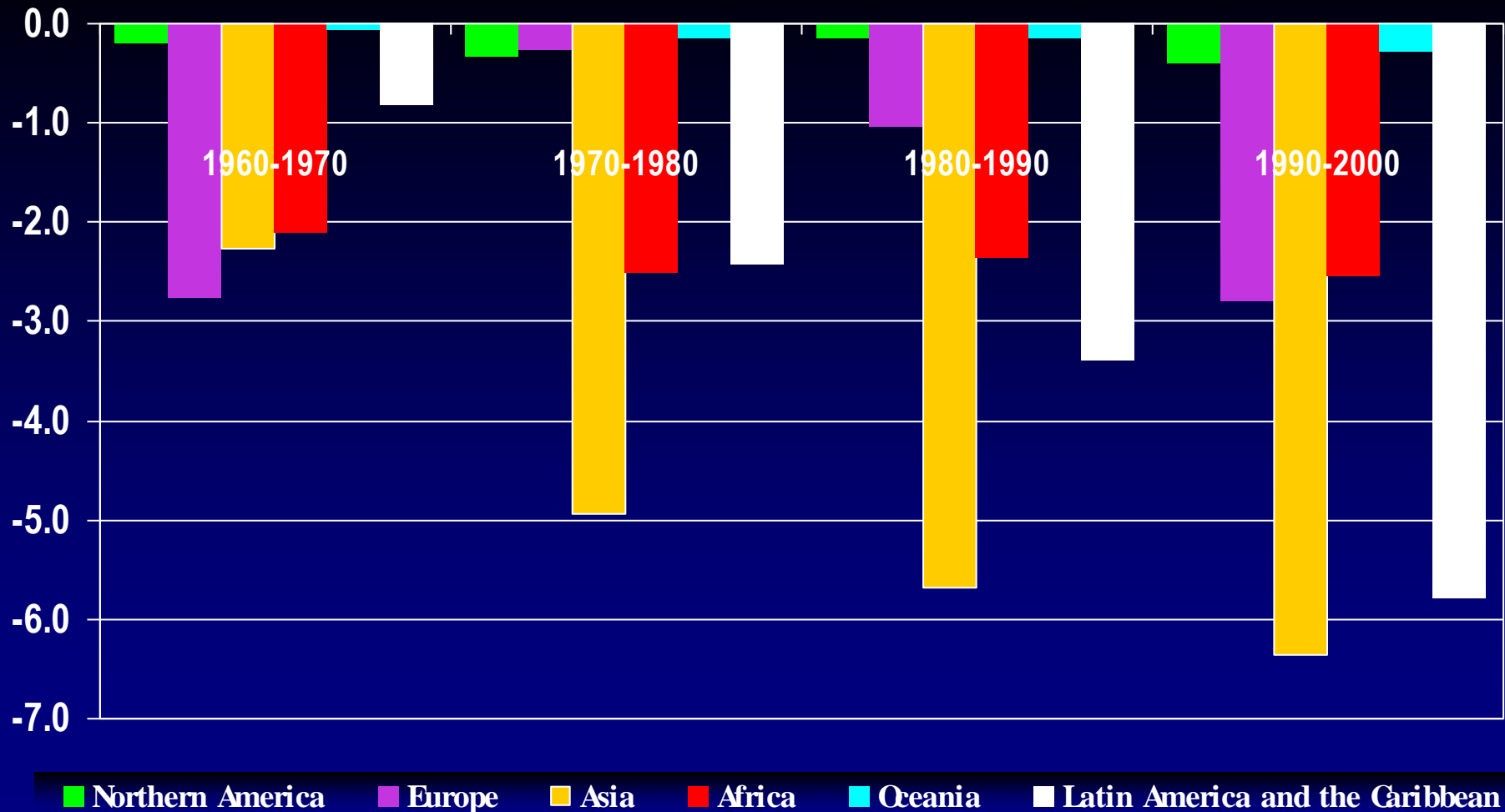


- WB Northern America
- Europe
- WB Africa
- Oceania
- Northern America
- WB Asia
- Africa
- WB Latin America and Caribbean
- WB Europe
- Asia
- WB Oceania
- Latin America and Caribbean

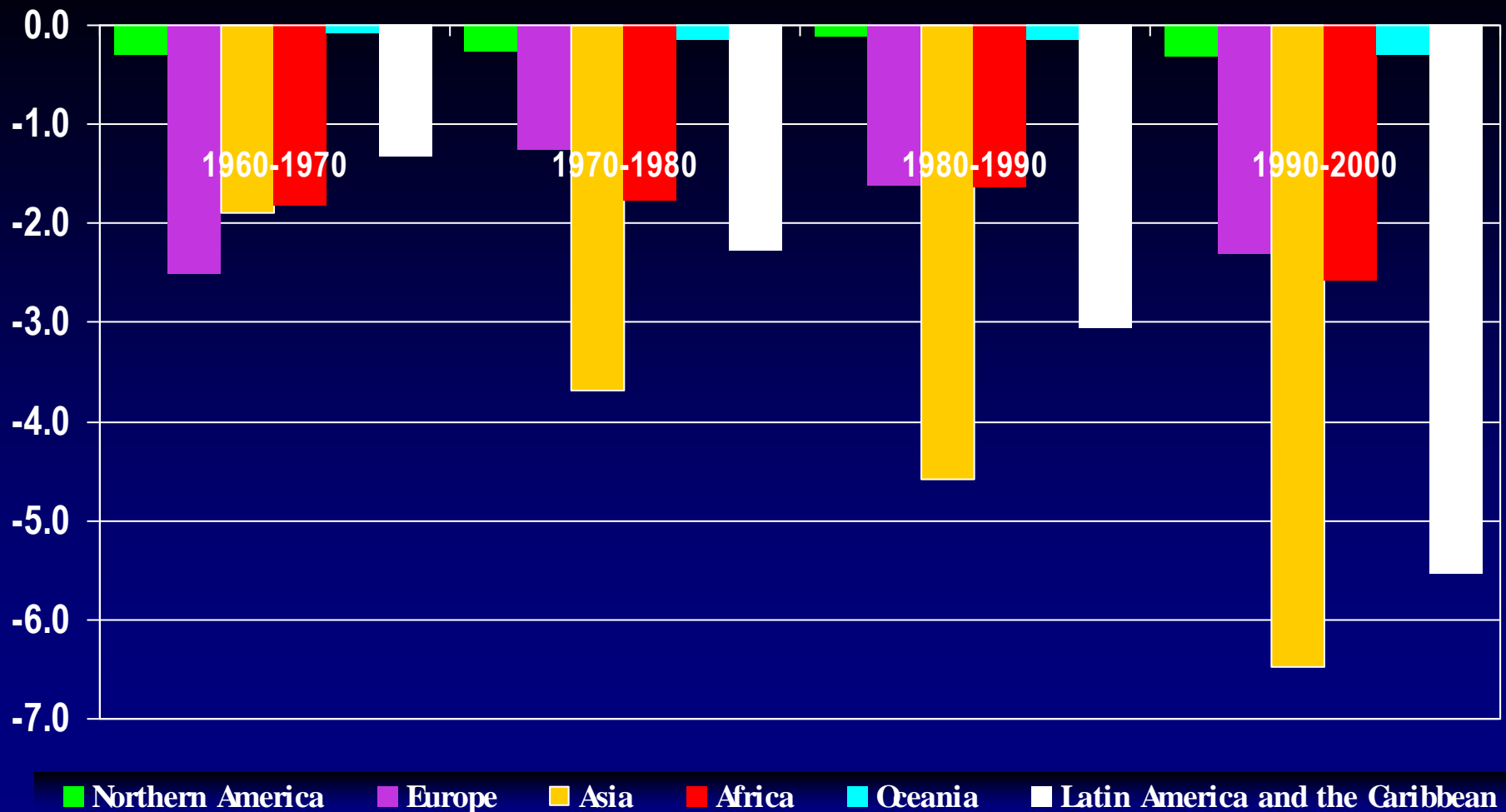


**Net migration of  
NATIVES**

# Net migration of native males (WB 2011)



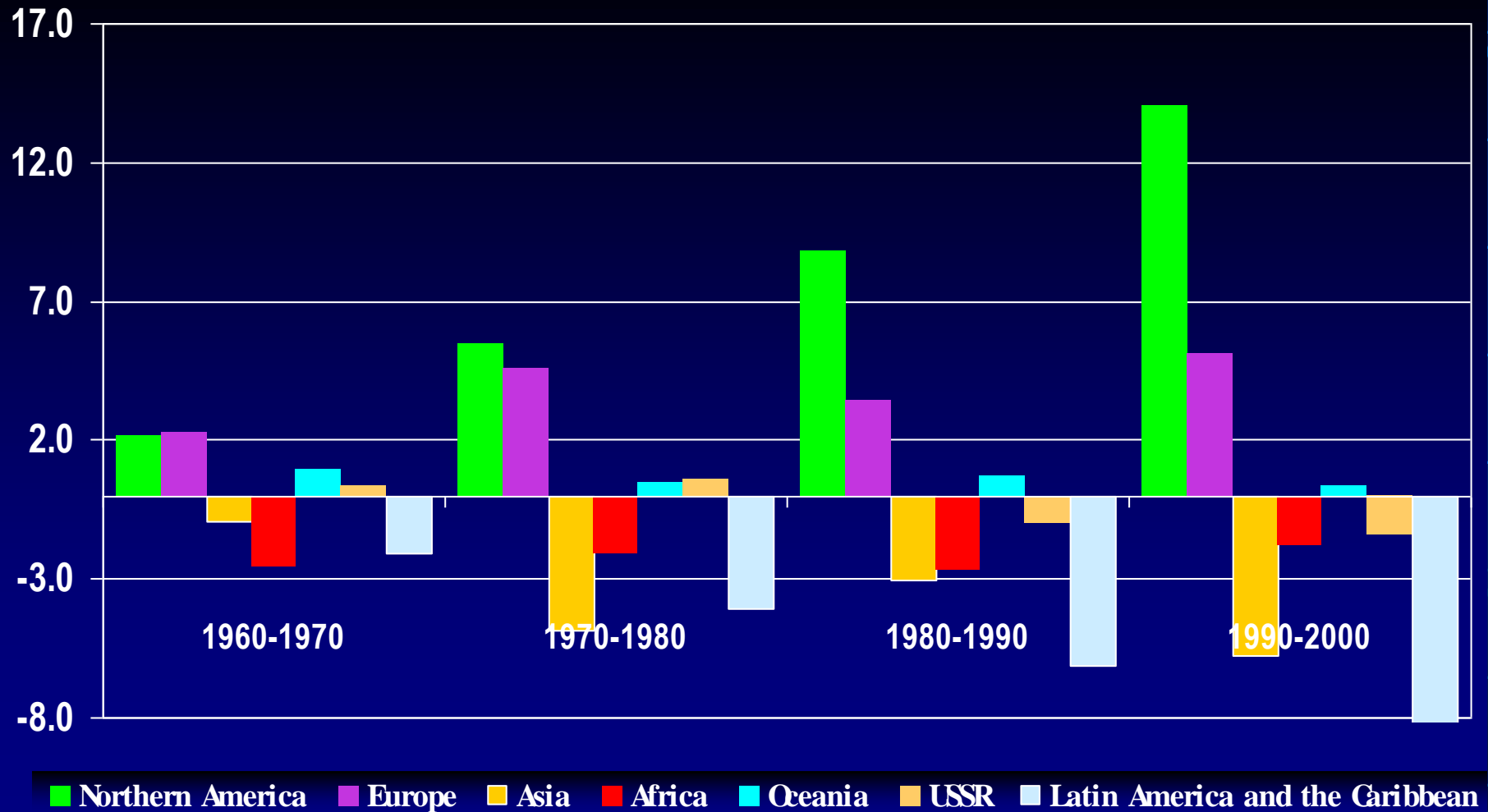
# Net migration of native females (WB 2011)





# Overall Net Migration

# Net migration, both sexes (WB 2011)

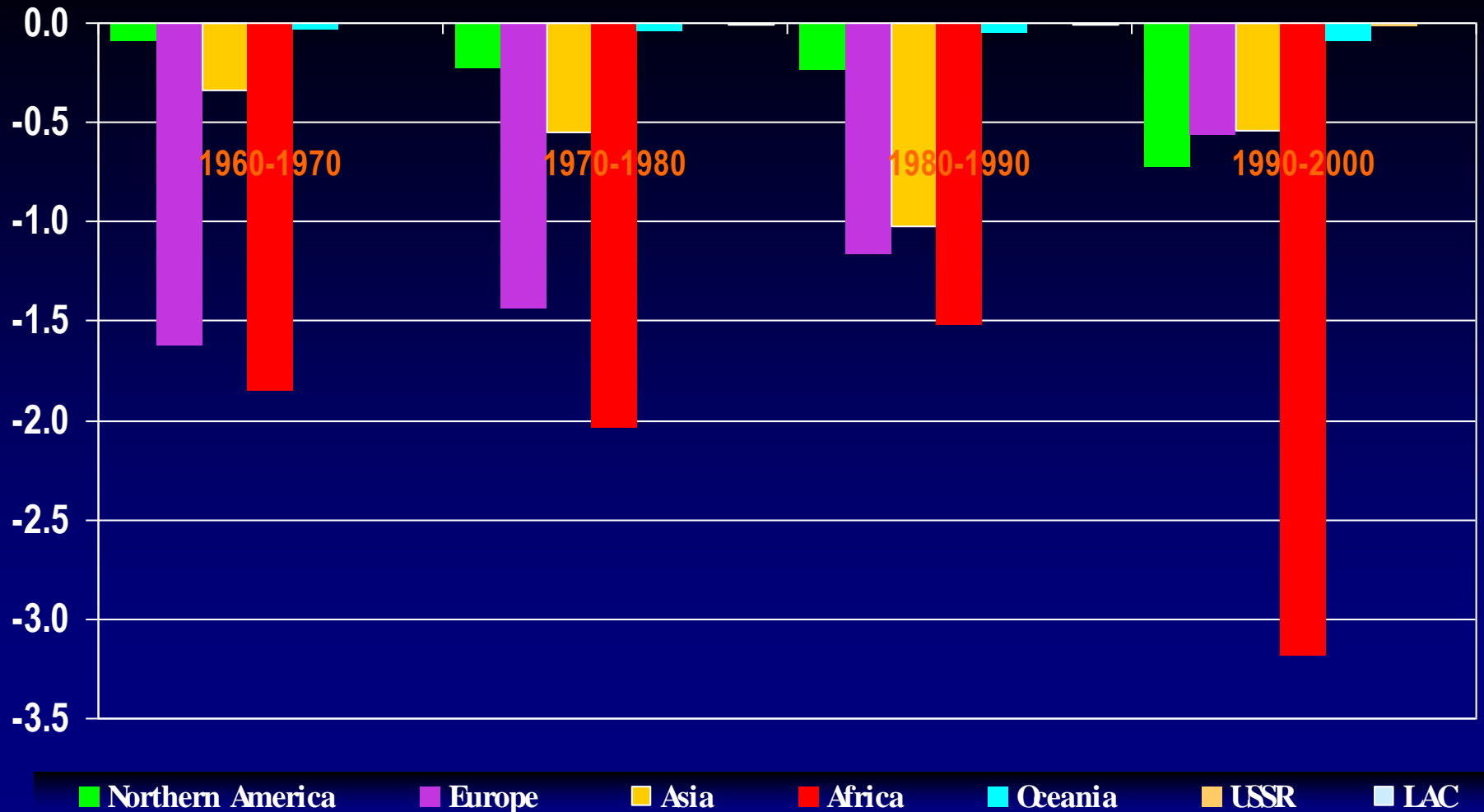




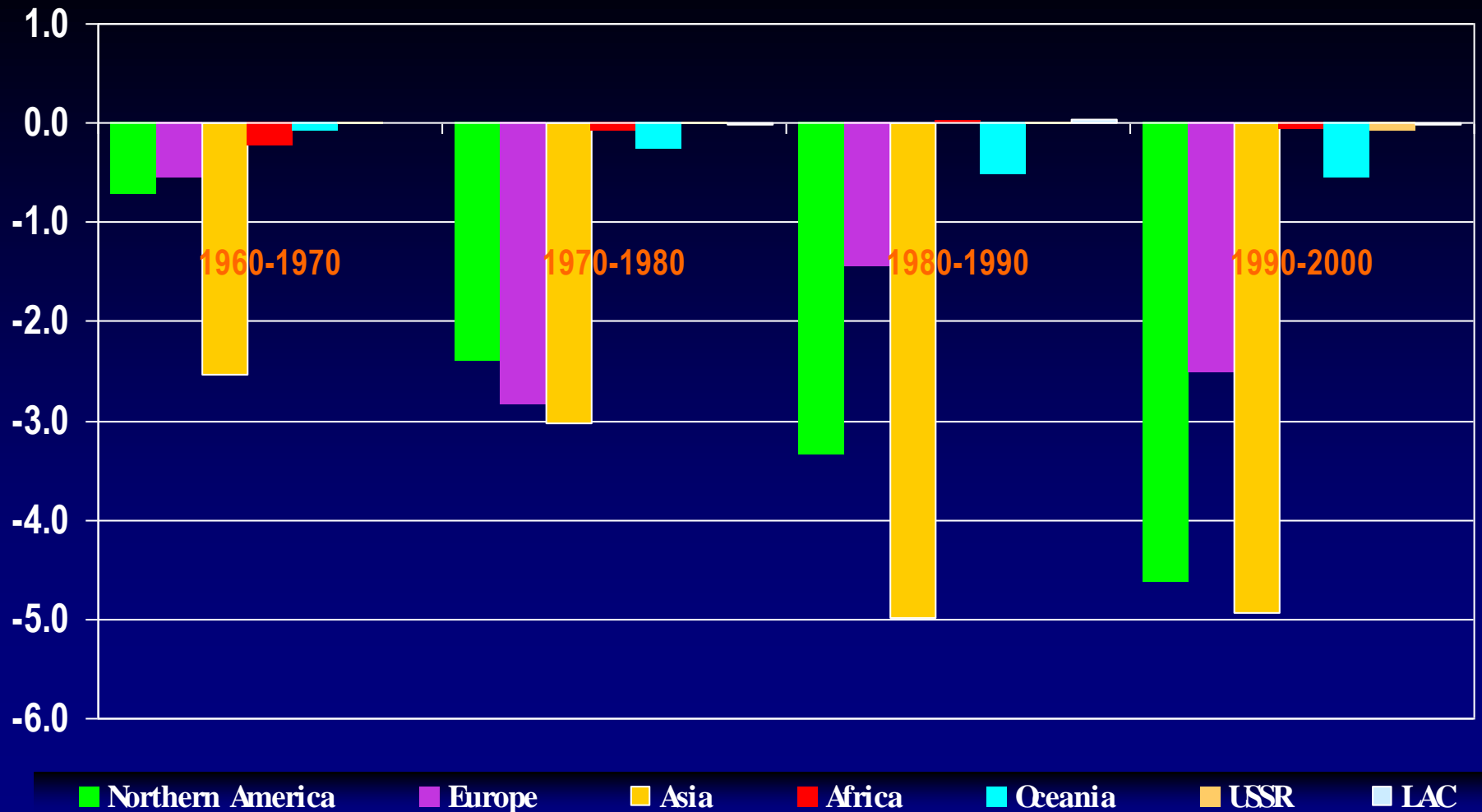
**Net migration of natives of the  
different regions**



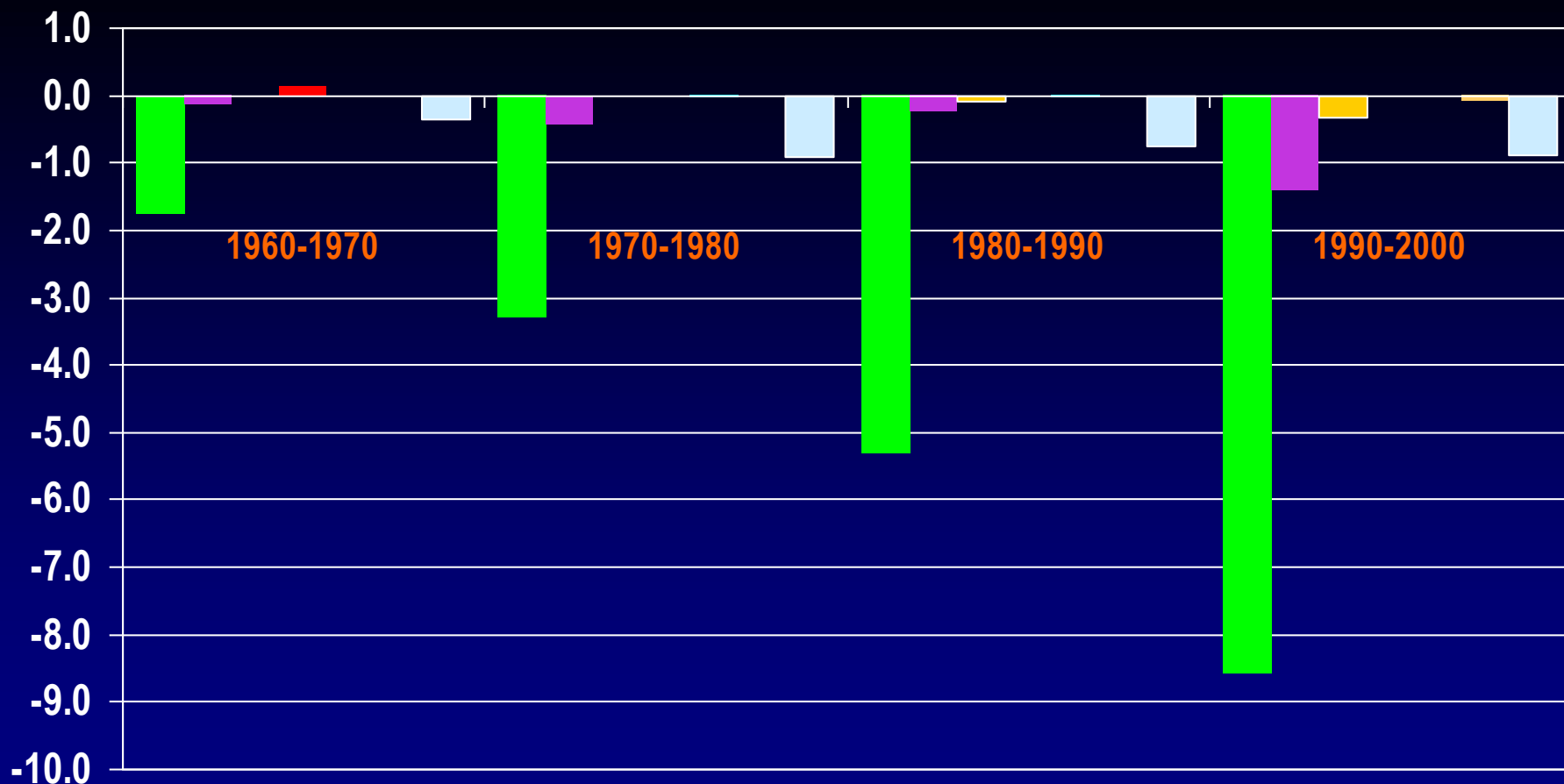
# Net migration of natives of Africa (WB 2011)



# Net migration of natives of Asia (WB 2011)



# Net migration of natives of Latin America and the Caribbean (WB 2011)



■ Northern America

■ Europe

■ Asia

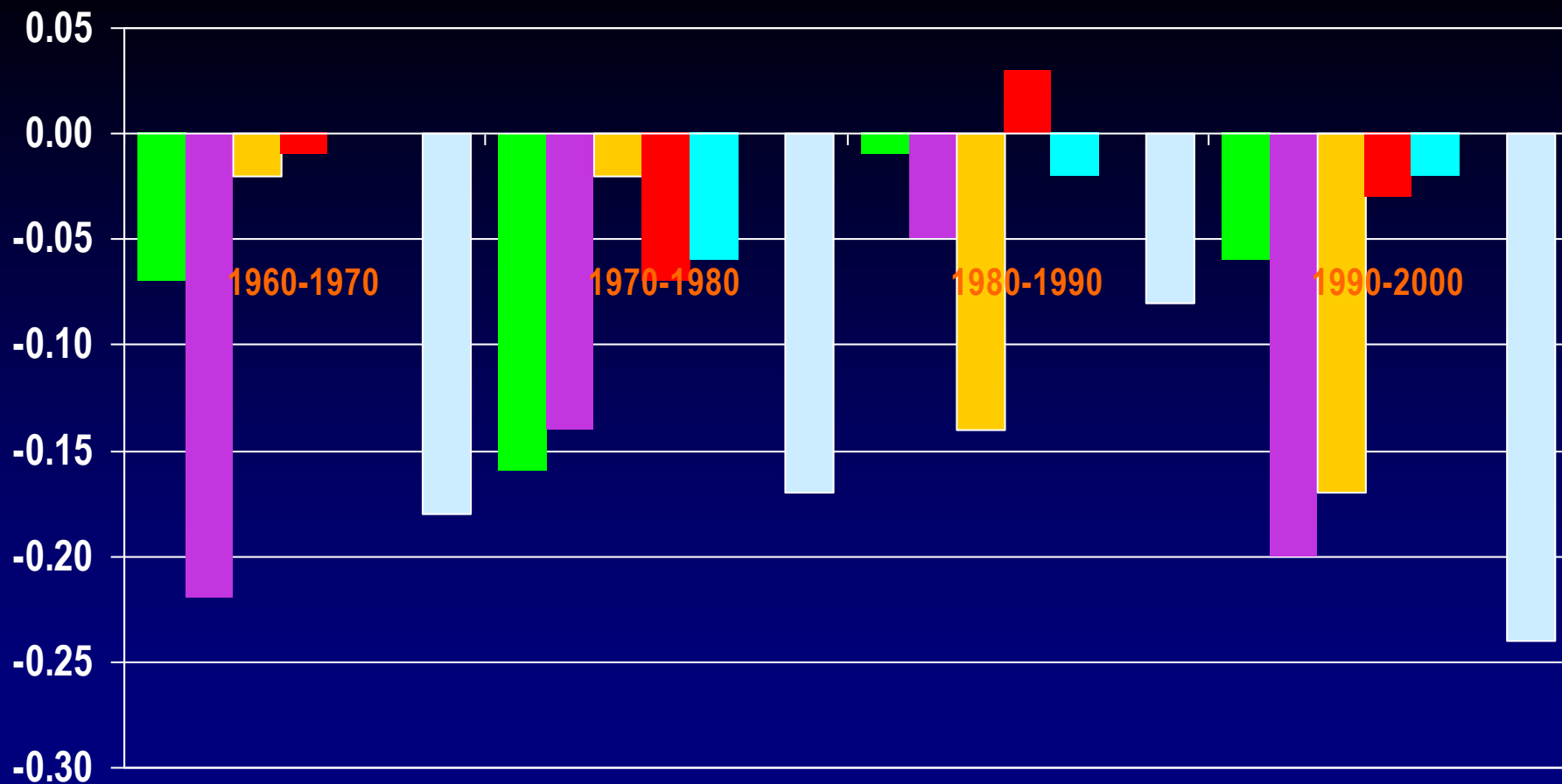
■ Africa

■ Oceania

■ USSR

■ LAC

# Net migration of natives of Northern America (WB 2011)



■ Northern America

■ Europe

■ Asia

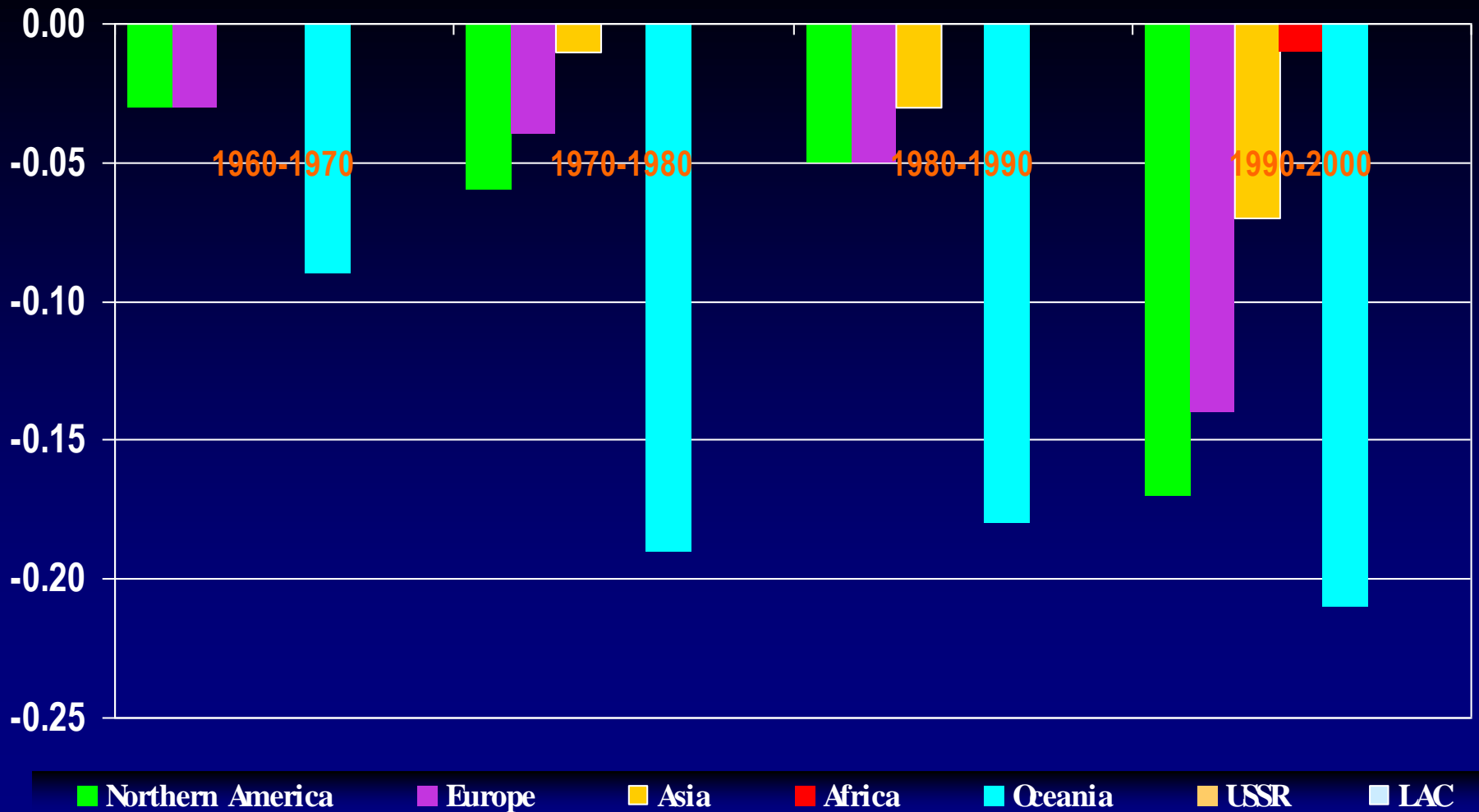
■ Africa

■ Oceania

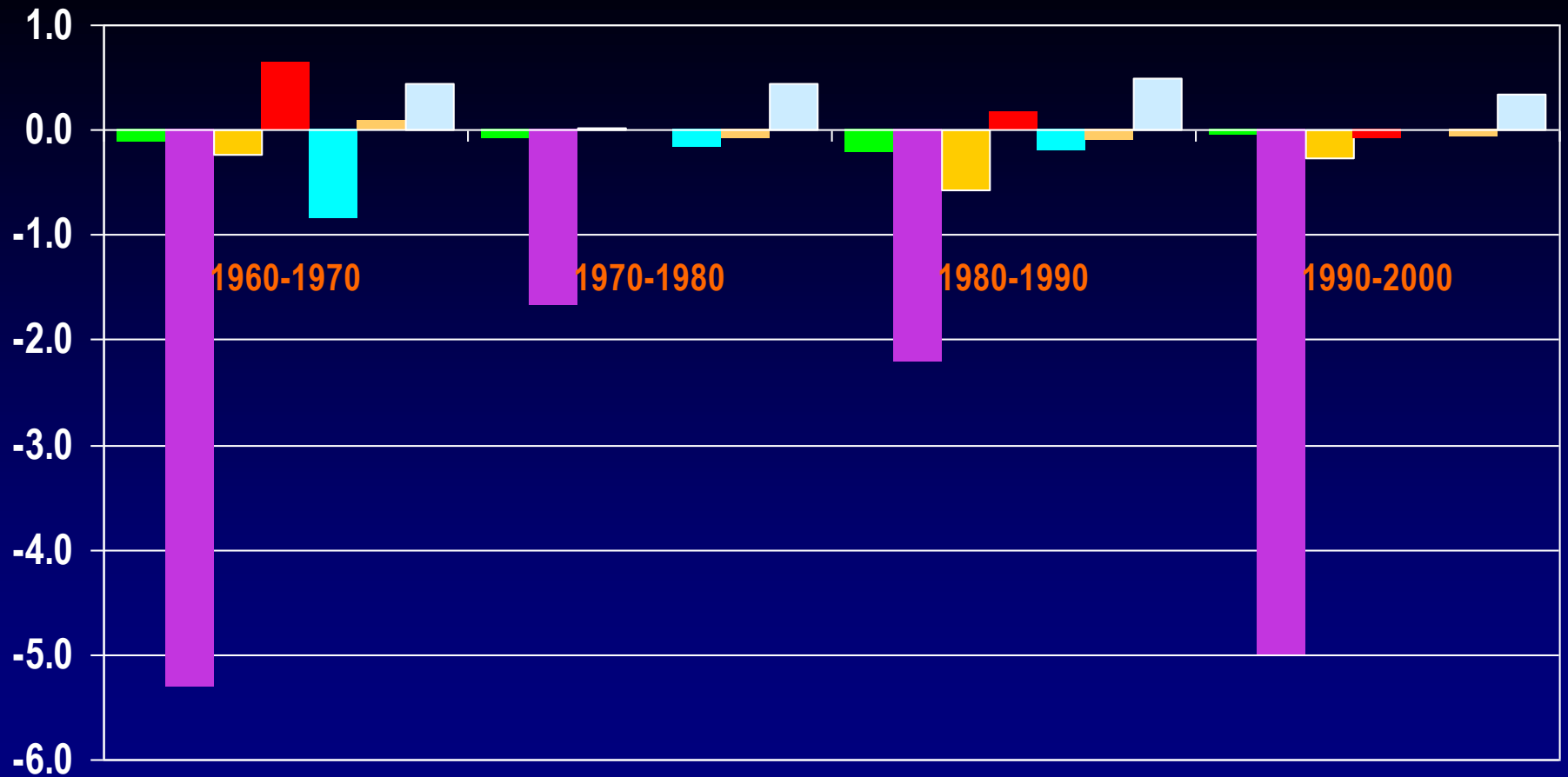
■ USSR

■ LAC

# Net migration of natives of Oceania (WB 2011)



# Net migration of natives of Europe (WB 2011)



Northern America

Europe

Asia

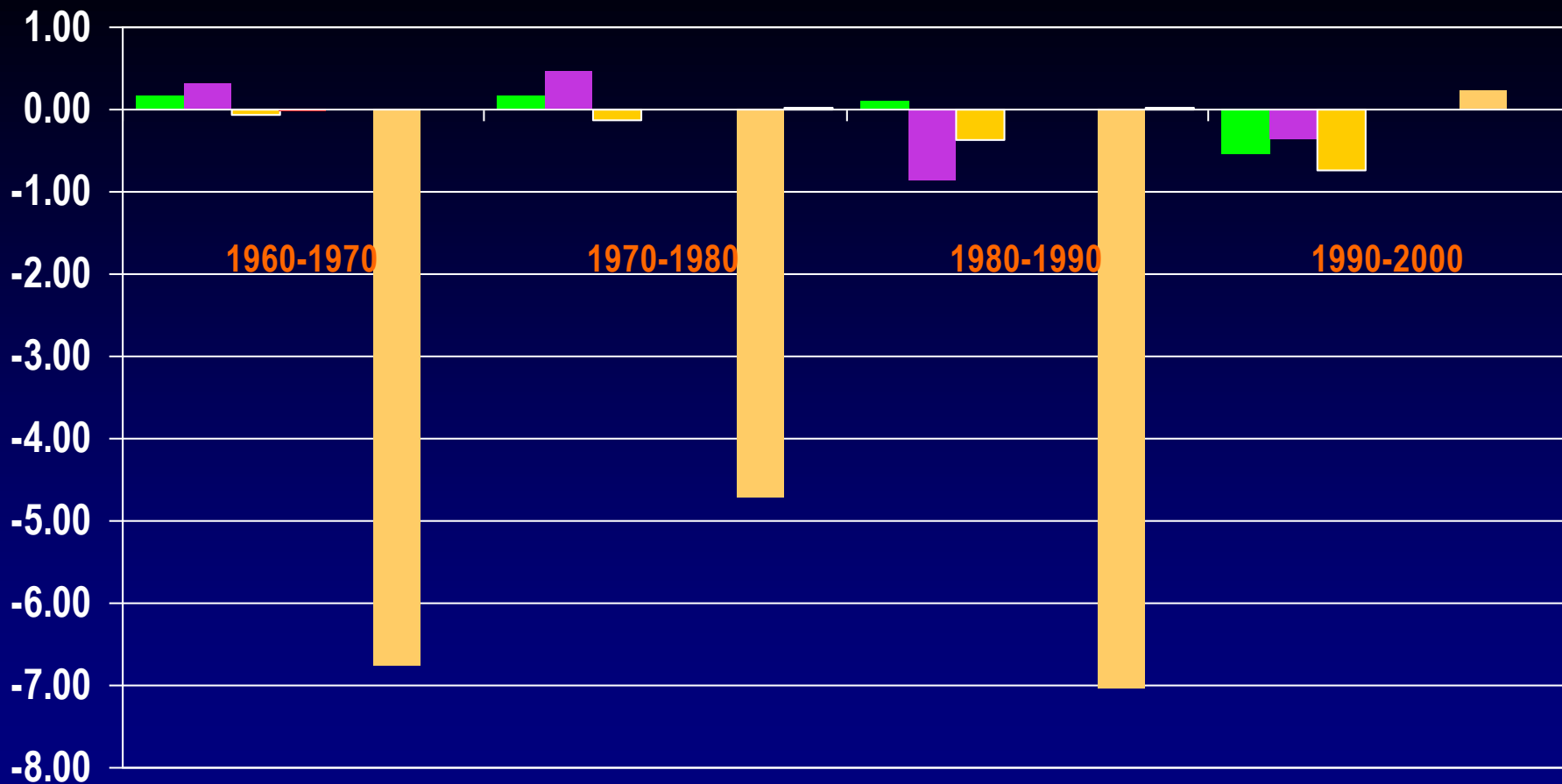
Africa

Oceania

USSR

LAC

# Net migration of natives of the USSR (WB 2011)



Northern America

Europe

Asia

Africa

Oceania

USSR

LAC

# Conclusion

**The estimates of bilateral flows seem generally consistent with what is known about historical trends**

**They unveil some of the complexity and volatility of migration flows and open the possibility of modeling such flows in relation to other factors**