# The Evolution of the Federal Reserve Swap Lines

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Intraduction

• Global Financial Crisis: swaps return to the modern central bank's toolkit.

- Why did the Fed ever get rid of them?
  - ~ often beneficial.
  - ~ many ad hoc issues, but two perennial problems:

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- appropriations process.
- Fed independence.

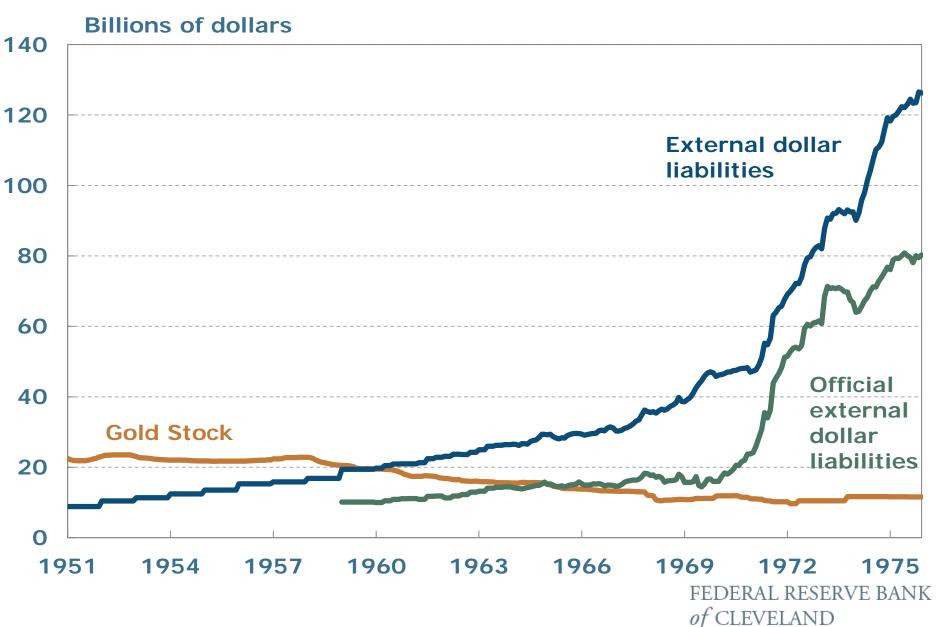
Advent of Fed Swap Lines

• October 1960, gold price rises above US gold export point on fear of dollar devaluation.

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- Underlying problems.
  - ~ Triffin's paradox.
  - ~ US inflation.
  - ~ Dollar's vehicle-currency status.

#### **U.S. Monetary Gold Stock and External Liabilities**



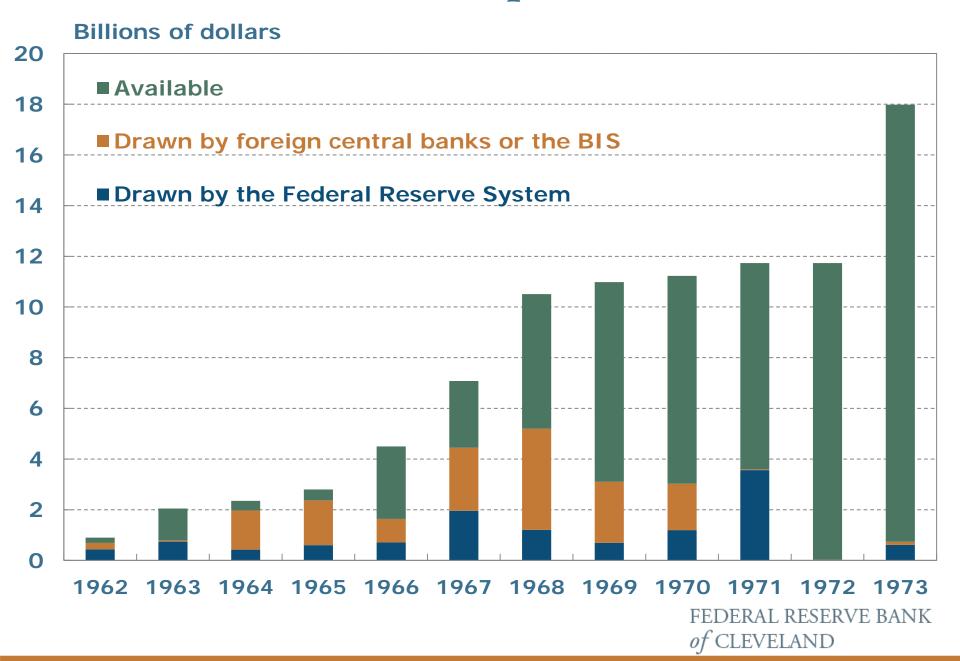
Advent of Fed Swap Lines

• March 1962: Reciprocal Currency Arrangements.

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- ~ forestall a drain on the US gold stock.
- Independent within—not of—government.
  - a violation of the Congressional appropriations process.
  - ~ conflicts with Fed's independence.

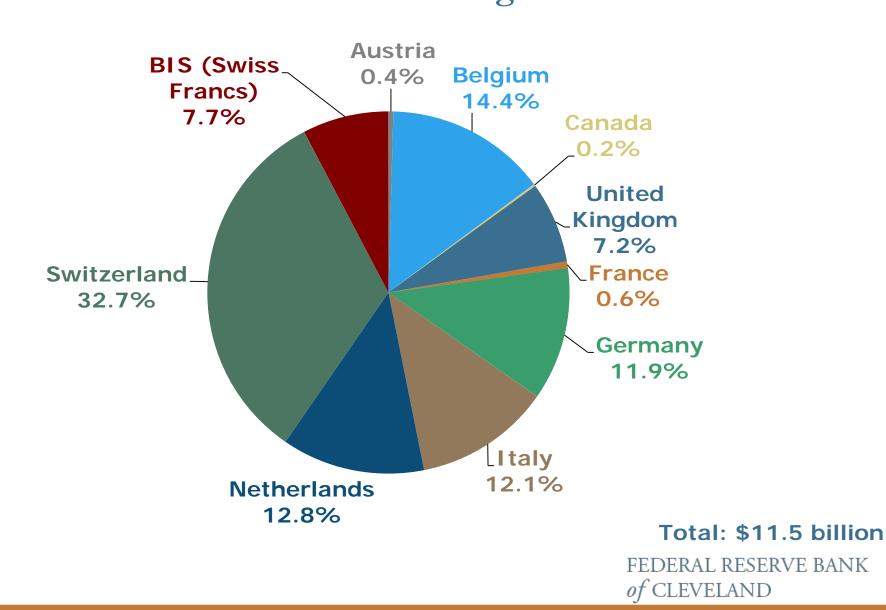
#### Federal Reserve Swap Lines: 1962-1973



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- Short-term expedient.
  - ~ balance-of-payments deficit not fundamental.
  - ~ forestall *temporary* runs on the gold stock.
- SWAPS: Structure emphasizes short-term nature.
  - ~ 3 months, "flat" basis.
  - ~ one renewal; no continuous drawings.

### Composition of Swap Drawings 1962-1971 FRS Drawings



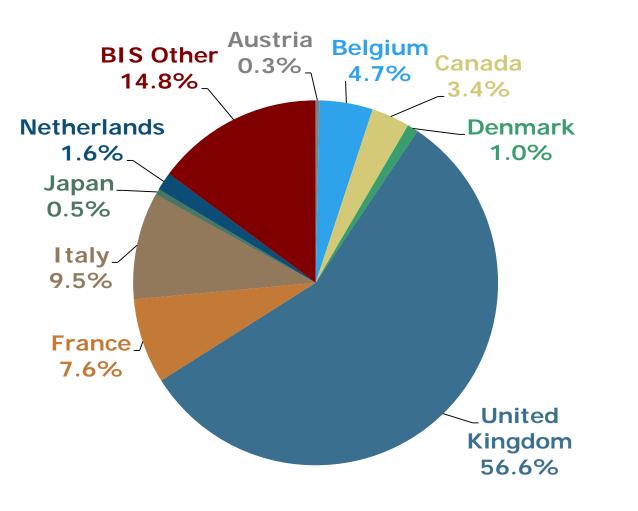
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- What is short-term / long-term problem?
  - ~ problems retiring swaps.
- Treasury backstop.
  - ~ shifted debt & exposure.
  - ~ threat to independence.
- Did forestall gold drain.

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- Reciprocal; provide temporary dollar liquidity.
  - ~ compliment or substitute for reserves?
  - ~ signaled cooperation between central banks.

## Composition of Swap Drawings 1962-1971 Other's Drawings



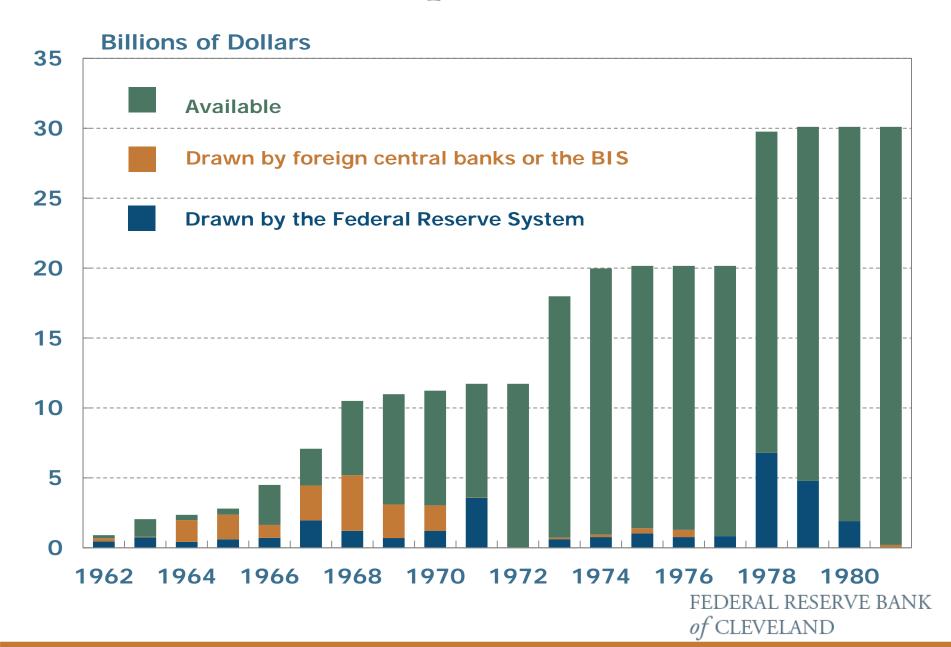
#### Total: \$15.3 billion

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Swaps and the Early Float

- Floating exchange rates—inherently prone to disorder.
- US virtually no foreign-exchange reserves.
- Swap lines to finance FX interventions.
  - ~ risk-sharing agreement.
  - ~ expand the swap lines—German marks.

#### Federal Reserve Swap Lines: 1962-1981



Swaps and the Early Float

- Swaps & Intervention—serious operational problems.
  - ~ dollar depreciates => sales of FX.
  - ~ quickly buy FX back to pay swap.
- Portfolio-balance mechanism.
- 1977 1978: depreciation & substantial swap losses.

Swaps and the Early Float

- The German complaint: inflation & swap losses.
- 1979: Fed begins to build an FX portfolio.
- 1981: Swap lines remain in place, but no draws.

Mexican Swap Lines

- Swaps: contravene the appropriations process.
- Mexican swap line.
  - ~ supplement reserves.
  - ~ 1980s international debts.
  - NAFTA leads to FOMC debate.
    - ~ 24 March 1994, assassination => \$6 billion.

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~ 26 April 1994, NAFA.

Mexican Swap Lines

- 20 December 1994, peso devaluation.
  - ~ Congress refuses bailout funds.
  - ~ Treasury: NAFTA contingency plan.
  - Treasury \$20 billion aid package.
    - ~ finance via "warehousing".
    - ~ staff: could take 10 years to repay.

Mexican Swap Lines

- FOMC objections: clear violation of appropriation process.
- Fiscal policy.
- Swaps to end with introduction of euro.
- Board and FRBNY:

"provide a mechanism whereby the Fed could provide dollar liquidity...to foreign monetary authorities who may in turn need to provide dollar liquidity to their banks in the event that dollar funding to their banks is suddenly...withdrawn."

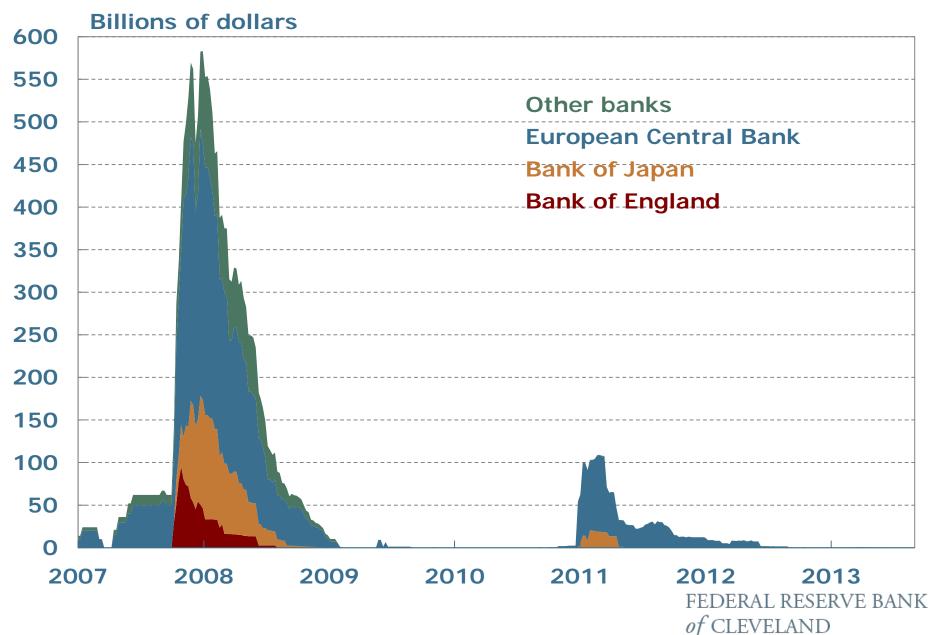
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Global Lender of Last Resort

- 2007 Global Financial Crisis.
  - ~ dollar maturity mismatches.
- Extension of TAF to foreign central banks.
  - ~ countries in which US banks have high exposure.

- ~ foreign central banks assume credit risk.
- ~ moral hazard.

#### **Dollar Liquidity Swaps**



Global Lender of Last Resort

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• Countries should use their FX reserves.

~ often insufficient: BoE, ECB draw more from swaps than their reserve amounts.

- ~ increased liquidity in the market.
- US lines now permanent.
- Other countries offer swap lines.

Assessment

- Fed's swap lines now permanent facility to finance global LOLR operations.
  - ~ necessary, dollar is key international currency.
  - ~ unlike reserves, can expand liquidity.
  - ~ signals cooperation.
- Problems:
  - ~ an end run of the appropriation process.
  - ~ threat to monetary independence.

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