What Is It?

• The move to a common currency for a group of countries of Europe
  – Originally 12 countries
  – Now 19, with addition of Lithuania Jan 1 2015
• Purpose: To further the economic integration of Europe that
  – Began with the European Economic Community (a customs union – see next time)
  – And is today called the European Union (EU)

Outline: European Monetary Unification and the Euro

• What Is It?
• History of the EMU
• Need for Convergence
• Pros and Cons of Unification
  – Why Adjustment Is Hard
  – Winners and Losers under EMU
• What Happened?
• The Eurozone Crisis

What Is It?

• The currency is shared by all 19 countries and is not controlled by any one of them
• It is controlled by the European Central Bank (ECB), based in Frankfurt, Germany
• The group of countries is called the Economic and Monetary Union (EMU)
  (Also, informally, the Eurozone)
### History of the EMU

**Before 1973:**
- All these currencies were pegged to the US dollar

**After 1973:**
- The Bretton-Woods system collapsed and major currencies stopped pegging to US$
- By default, currencies began to float
- Europe, because of its large internal trade, found exchange rate movements especially troublesome

**After 1973:**
- Europe tried several arrangements to get greater stability
  - Wide-band peg to $ with narrower peg to each other: "Snake in the tunnel"

**1979**
- European Monetary System (EMS) established
  - Features:
    - An Exchange Rate Mechanism (ERM) of exchange rates pegged to each other within ±2.25% bands
    - Provision for adjusting the pegs when needed
    - A basket of currencies forming the European Currency Unit (ECU) that floated with respect to outside currencies
    - Capital controls
    - Did it work?
      - Inflation rates differed, but their differentials gradually fell
      - 11 currency realignments during 1979-87

**1989:** First official statement of the goal of moving toward a common currency

**1991, December:** Maastricht Treaty
- Agreement on greater unification of member countries, forming the “European Union”
- Also included the terms for adopting the common currency

**1992:** Crisis
- Denmark voted NO to the Maastricht Treaty
- Speculative attacks on currencies forced some to drop out of ERM
- 1993:
  - ERM widened bands to ±15%
  - Prospects for EMU looked bleak
  - Denmark ratified Treaty but “opted out” of the euro; UK also opted out
  - Germany was last country to ratify Maastricht Treaty
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Need for Convergence

- Difficulties of adopting common currency
  - If countries have different rates of inflation
    - High-inflation countries will lose markets to low-inflation countries
    - Exchange rates won’t adjust (a la PPP) to correct for differences
  - If countries have different interest rates
    - Capital will flow to high-interest rate countries seeking higher return
    - Uncertainty about exchange rate won’t offset this
    - Temptation to run budget deficits when able to borrow from other countries

- Maastricht Convergence Criteria
  1. National currency in ERM for 2 years
  2. Budget deficit < 3% of GDP
  3. Government debt < 60% of GDP
  4. Inflation < 1.5% above average of lowest 3
  5. Long-term interest rates < 2% above average of lowest 3
- How well were they doing?
  - Following graphs from 1998 article

Figure 1: CPI Inflation Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>5.0</td>
<td>2.5</td>
<td>5.0</td>
<td>10.5</td>
</tr>
<tr>
<td>1980</td>
<td>3.0</td>
<td>1.5</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>1990</td>
<td>1.0</td>
<td>0.5</td>
<td>1.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund

Figure 2: Government Bond Yields

<table>
<thead>
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<th>Year</th>
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</tbody>
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Source: International Monetary Fund
Maintaining Convergence

- Stability and Growth Pact (SGP)
  - Agreed in 1996 that members of the Eurozone would
    - Keep their budget deficits below 3% of GDP
    - Pay fines if they broke this limit

As we’ll see later, this has been a problem!

Timetable

- May 1998: Membership was set
  - Based on convergence
  - All of the then 15 EU members, except
    - UK, Denmark, Sweden – who opted out
    - Greece – who failed to converge (Greece did enter soon after)
- Jan 1, 1999: Euro was launched (except notes/coins)
  - Value of euro = 1 ECU as of midnight Dec 31, 1998 = $1.18
  - Currencies “irrevocably” linked
  - Single monetary policy: ECB (European Central Bank)
  - New public debt issued in euros
  - Financial markets started using euro
- Jan 1, 2002: Notes/coins started circulating
- Jul 1, 2002: National notes/coins retired

The euro notes and coins

- Note what does not appear:
  - People
  - Actual buildings and places
- Purpose was to treat all members equally
- Result was that the currency lacks personality
- People don’t much like it, and they miss their old national currencies.
- See Kulish
Members

• As of 2002, EU had 15 members, of whom 12 adopted the euro

Belgium Austria France Ireland Italy Netherlands Portugal Spain Sweden

BAFFLING PIGS

Members

• And 3 did not

Denmark United Kingdom Sweden

DUKS

Members

• Since 2002, the Eurozone has become:

BAFFLING PIGS + SCLELMS?


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Pros and Cons of Unification

• Proponents expected
  – Complete the internal market
  – Improved competition & efficiency
  – Arbitrage across national borders
  – New era of prosperity
  – Stable prices
  – Fiscal discipline
  – Lower interest rate
    ➔ thus higher investment
    ➔ Stronger growth
  – More jobs

Pros and Cons of Unification

• Opponents expected
  – Division of the EU (baffling pigs vs. duks)
  – Loss of sovereignty
  – Little popular support
  – Regulatory & other costs
  – Difficulties of adjustment to asymmetric shocks
    (As had happened before, e.g., with German unification and discovery of North Sea Oil)
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Pros and Cons of Unification

- Why adjustment is hard
  - Like states in the US, countries in Eurozone have
    - No exchange-rate tool
    - No separate monetary policies
    - Very limited fiscal policies (due to SGP)
  - Unlike US states, however, in Eurozone
    - Labor is less mobile across countries
    - Wages are less flexible, due to social policies
    - No mechanism for fiscal transfers among countries

Winners and Losers from EMU

- Winners
  - Multinational companies: their costs of operating in multiple countries were reduced
  - Europe’s biggest banks were expected to gain, through consolidation across borders
  - Consumers, able to comparison-shop across borders
- Losers
  - Small firms (e.g. shops, restaurants), for whom changeover was costly, with little benefit
What Happened?

- Euro started (Jan 1, 1999) at 1.18 $/€
- Now (Nov 5, 2018) it is 1.14 $/€
- So euro has simply fallen, right?
- Hardly! Not that simple.

What Happened since 1999?

From IMF, International Financial Statistics

What Happened over the Last Year?

From X-Rates.com

9%

What Happened over the Last Month?

From X-Rates.com

2.5%

What Happened?

- Euro fell, after its creation by about 25% to 2001
- Then it rose by 2004 back to slightly above where it started
- By 2008 it had risen to over $1.50, only to fall in 2009
- From 2004 to 2014, it stayed at or above $1.20
- It then fell to about $1.10, then $1.05 where it stayed until early 2017.
- Some thought it would go below “parity” of $1.00, but it instead rose to over $1.20 and is now $1.13

What Happened?

- Why all this change? I don’t think we know, for the changes that happened over most of this period.
- The fall since 2014 – from over $1.30 in 2013 to about $1.05 a year ago – was due to
  - Weakness of the Eurozone economies
  - The ECB’s use of “Quantitative Easing” to lower interest rates and stimulate the economy
  - The US Fed’s interest rate increase and signals that it will raise them further
- Why has it risen over the last year? Some would say because of Trump
What Happened?

- Has the euro worked well for Europe?
  - There were problems, even in the early years
  - Many in Europe perceived that prices rose when converted to euros
  - Several countries broke the limit of the SGP
    - Portugal: suffered criticism but was not fined
    - France, Germany
      » Too big even to criticize
      » Instead EU revised the SGP
    - In the last decade, the PIIGS (Portugal, Ireland, Greece, & Spain)
      » Or PIIGS, including Italy

What Happened?

- Has the euro mattered for the US?
  - Not much
  - When the euro fell initially, it made it hard for US to compete
  - In 2007-8, with euro’s rise,
    • US benefited as sellers
    • US was hurt as consumers and as tourists

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The Eurozone Crisis

- The crisis consisted of (see Baldwin et al.)
  - News of Greek debt, and concerns about Greece’s ability to manage it
  - Increased interest rates in Greece and other Eurozone countries, threatening debt problems there as well
  - Bailouts by EU, ECB, and IMF (the “Troika”)
  - Concern that the Eurozone might break up
  - Commitment by ECB’s Draghi to “Do whatever it takes” to save the eurozone.
The Eurozone Crisis: Timing

Source: Baldwin et al., “Rebooting the Eurozone”

Note that Greece is not solved, and crisis may not be over.

What Happened?

- The problem of Eurozone imbalances
  - The common currency fostered current-account imbalances
  - Surplus countries lent to deficit countries
  - Without institutions (banking union, fiscal union) to assist adjustment, loss of confidence could cause “sudden stop” of creditors’ willingness to lend
  - That set the stage for crisis.

What Happened?

- The problem of Greece (started in 2010)
  - Greek government deficits had been over 10% of GDP
    - (compare SGP limit of 3%)
  - Greek debt rose to about 160% of GDP
    - (compare SGP limit of 60%)
  - Markets feared default; speculators attacked both Greek bonds & euro
  - EU (esp Germany) were reluctant to help (& was prohibited by Lisbon Treaty)
  - Greek austerity caused massive protests

What Happened?

- The Euro Zone today
  - In process of negotiating a mechanism to
    - Provide loans to member countries in trouble
  - Put pressure on them for austerity:
    - Cut spending
    - Raise taxes
  - Form “banking union” to safely manage bank failures
What Happened?

• The Euro Zone today
  – Still trying to solve the problem of Greek debt
  – Tradeoff between
    – Bailout money from others to pay it off
      » Favored by weaker EU countries (e.g., France)
    – Cutting value of bonds to private sector holders
      » Called "haircut" (also "bail-in")
      » Also called "Private-sector involvement" (PSI)
      » Favored by stronger EU countries (e.g., Germany)

What Happened?

• The Euro Zone today
  – Fear that if not solved,
    • Greece would default
    • Speculators would attack other weak countries' bonds
    • Greece and others will be forced to leave the euro
  – These concerns seemed to have abated in 2014, but then Greece elected a government opposed to the terms of the bailout.
  – Greece is still struggling, and fears of crisis in the Eurozone have lessened but not disappeared

What Happened?

• The Euro Zone today, per the Smaghi reading
  – Crises are caused by
    • “Doom loop” where banks hold government debt, and doubts about the latter cause bank runs
    • “Perverse loop” (Smaghi’s term) where fear of exit from the euro causes capital outflow that makes exit more likely
  – Smaghi recommends a formal procedure for exiting the euro, and that it be combined with exiting the EU
    • That, he says, would discourage those who want to exit the euro

Next Time

• Preferential Trading Arrangements and the NAFTA
  – What are they?
  – Their effects
  – NAFTA
  – Other