April 1\textsuperscript{st}: German economic and monetary unification
Relevance of this case study

• A case study of the difficulties of the transition from central planning to the market.
  – A specific instance of the general phenomenon we discussed on the Thursday before the break.

• But this case differs from the others in that economic and legal institutions were imported lock, stock and barrel.
  – This can in principle shed light on the importance of institutions in the transition from plan to market.

• But there were also unique social and political constraints in the German case, which had significant implications for the transition.
State of the East German Economy, 1989

- Perception was economic performance of the East German economy had been respectable.
- But we now know this reflected massive overreporting of output.
- East German bureaucrats could attach any price they wanted to the national car, the Trabant, but everyone knew that it was not a Mercedes (much less a VW).
East and West German product quality
Trabbi jokes...

• Man walks into a car dealership. “Can I get a radio for my Trabbi?”
• How do you double the value of a Trabbi?
• What do you call a Trabbi on a mountain?
• How do you measure the acceleration of a Trabbi?
The GDR also suffered from the other standard problems of centrally-planned economies

- Planners had incomplete control of what went on at the enterprise level.
- Centrally planned economies were not good at innovating
- Environment not valued (given lack of political accountability), and consequent environmental degradation created serious health problems
- Micro-technologies were suppressed in order that the authorities could control the flow of information
- Property rights not protected (see next slide)
• Famous phrase was that “Since capital belongs to everyone, it belongs to no one.” No one had an incentive to protect or maintain it.
• But walking away with materials and machinery was risky so long as being caught meant being locked up for life without appeal.
• Once compulsion weakened, however, opportunistic behavior rose.
• Once Stasi was discredited, old system was doomed to fail.
• And in this sense, economic liberalization followed from the decline of compulsion.
But if collapse was preordained:

- But if there are so many explanations for the collapse of this system, then how did it survive for so long?
  - Notice that this is the same question we asked in the Soviet context.

- Explanations include:
  - That the shortcomings of this system were less debilitating while there existed an ample backlog of technology (scope for extensive growth).
  - Compulsion (the secret police in the GDR, the Stasi, were notorious for their ruthlessness).
  - And, in addition, special factors supported the GDR’s economy:
    - Subsidized energy from USSR
    - Ability to borrow in West
• So how good or bad was the situation on the eve of the GDR’s collapse?
• The (admittedly imperfect) point of departure for answering this question is the official statistics circa 1989...
The official statistics for what they are worth

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>East</th>
<th>West</th>
<th>East in % of West</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area</strong></td>
<td>sq. km thous.</td>
<td>108</td>
<td>249</td>
<td>44</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>million</td>
<td>16.6</td>
<td>62.2</td>
<td>27</td>
</tr>
<tr>
<td><strong>Suicide rate</strong></td>
<td>number/100 thous.</td>
<td>26.1</td>
<td>16.5</td>
<td>158</td>
</tr>
<tr>
<td><strong>Per capita:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priv. consumption</td>
<td>M(DM) thous.</td>
<td>9.0</td>
<td>19.5</td>
<td>46</td>
</tr>
<tr>
<td>Financial wealth</td>
<td>M(DM) thous.</td>
<td>11.6</td>
<td>36.7</td>
<td>32</td>
</tr>
<tr>
<td>Savings rate</td>
<td>percent</td>
<td>5.8</td>
<td>13.6</td>
<td>43</td>
</tr>
<tr>
<td>GDP per man hour</td>
<td>M(DM)</td>
<td>22</td>
<td>49</td>
<td>45</td>
</tr>
<tr>
<td>GDP per petajoule of energy cons.</td>
<td>M(DM) thous.</td>
<td>94.9</td>
<td>199.4</td>
<td>48</td>
</tr>
<tr>
<td>Capital-labor ratio(^1)</td>
<td>M(DM) thous.</td>
<td>185</td>
<td>166</td>
<td>111</td>
</tr>
<tr>
<td>Capital-output ratio(^1,2)</td>
<td>per employed</td>
<td>4.3</td>
<td>2.7</td>
<td>159</td>
</tr>
<tr>
<td>Exports</td>
<td>DM(DM) bill.</td>
<td>32.1</td>
<td>641.0</td>
<td>5</td>
</tr>
<tr>
<td>Imports</td>
<td>DM(DM) bill.</td>
<td>32.9</td>
<td>506.5</td>
<td>6</td>
</tr>
</tbody>
</table>
What Happened Subsequently?

• Industrial production in the former GDR declined to less than a third of previous levels.

• GDP declined by somewhat less (by “only” half), since GDP also includes services, the demand for which is relatively stable and which face less import competition.
  – Import competition” should probably be in quotes, since much of it came from the western part of what was now a single country.

• This was probably the largest output collapse ever seen in a modern industrial economy.
The drop in output was even sharper than elsewhere in the Eastern Bloc

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Czechoslovakia</td>
<td>-3.1</td>
<td>-10.0</td>
<td>-4.0</td>
<td>-10.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>-5.0</td>
<td>-5.0</td>
<td>-8.5</td>
<td>-8.0</td>
</tr>
<tr>
<td>Poland</td>
<td>-13.0</td>
<td>-6.0</td>
<td>-27.1</td>
<td>-12.0</td>
</tr>
<tr>
<td>E. Germany</td>
<td>-13.3</td>
<td>-20.0</td>
<td>-53.9</td>
<td>-18.6</td>
</tr>
</tbody>
</table>

Source: DIW 1-2/92 and Sachverstandigenrat (1991)
1991 figures until fall.
There was, meanwhile, a dramatic collapse of employment

Jobs in the East
accounting for East Germany's workers

millions of persons

10  labor force at end 1989

9

8

7

6

5

4


retired or dropped from labor force

emigrants and commuters to west

unemployed

on short time

in job creation schemes

fully employed
Where did the workers go?

• 2 million workers took early retirement, migrated, or otherwise withdrew from labor force.
• 3 million became openly unemployed, went on short-time, or joined government make-work programs.
• And what is particularly alarming to economists is that this short term decline in employment was not reversed subsequently...
Employment meanwhile declined from 10 to 5 m.
While some of this reflects out-migration, a substantial unemployment differential persists even today.
So we need to distinguish and understand two things:

1. What explains the severity of the initial collapse in output and employment?

2. What explains the subsequent failure of recovery?
What explains the exceptional severity of the initial output collapse?

• Some factors (like the elimination of compulsion) were common throughout the region, so they can’t obviously explain the exceptional severity of the collapse in the former GDR.

• But there were also contributing factors distinctive to this case:
  – But access to Western goods was immediately freed; this reduced the demand for East German products. (Remember our Trabbie example; now everyone wanted a VW.)
  – Collapse of Germany’s trade with the Eastern bloc, which had its own difficulties, depressed external demand.
  – Exceptional energy dependence of enterprise in the former GDR.
  – And some fundamental mistakes of governance, specifically:
    • Lingering uncertainty about property rights
    • Explosive wage growth
For example, you can see the collapse of eastern trade here.
Other Factors Contributing to the Slump

• Uncertainty over property rights. Privatization was slow. Only 7,000 of 17,000 “newly nationalized firms” privatized by early 1993. Restitution of property seized by Nazis and Soviets uncertain.
  – Ultimately, property seized by the Nazis was restituted, but that seized by the Soviets was not. (So what happened when the Soviets seized property that had previously been sized by the Nazis?)

• Other legal uncertainties (environmental liabilities)
This is how West German firms saw things in 1991

<table>
<thead>
<tr>
<th></th>
<th>Legal Uncertainty</th>
<th>Administration</th>
<th>Infrastructure</th>
<th>Environmental Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>37</td>
<td>25</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>Mining</td>
<td>13</td>
<td>0</td>
<td>4</td>
<td>83</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>34</td>
<td>28</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>41</td>
<td>24</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>Final Goods</td>
<td>33</td>
<td>28</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>Construction</td>
<td>42</td>
<td>35</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Trade</td>
<td>42</td>
<td>29</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Services</td>
<td>39</td>
<td>30</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>27</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Deutscher Industrie und Handelstag, Autumn Member Survey. Percent of respondents answering affirmatively.
Another factor contributing to the collapse of employment was rapidly rising wages.
The Wage Problem developed early
Association with unemployment

Rapid Wage Hikes Slow Employment
wage growth and unemployment across German states

% growth in wages, 1990-94 annual average

20
15
10
5
0

unemployment rates, April 1995

east German states

west German states

source: Federal Statistic Office
This by itself is enough to explain why output collapsed

• Wages nearly tripled, while productivity barely rose.
• This is why we saw the exceptional output collapse.
• How could firms survive when labor costs doubled, wages were 70% of total costs, and profits had been all but nonexistent?
So how did any East German firms keep running?

– Answer: subsidies. If eastern productivity is 1/3 of west, and eastern employment was 1/3 of west, then eastern output was 10% of western output. Giving firms in east subsidies equal to 50 per cent of their previous revenues could be done by transferring “just” 5 per cent of West German GDP.

– And that is what was done. (Even today, subsidies from the former West Germany to the eastern lander (or states) are running at 4% of the western landers’ GDP.)
What lay behind the wage increases and willingness to subsidize them?

• Fear of migration from east to west
• Fear that low-cost eastern labor would undercut western unions
  – Second factor was probably more important in practice
What Would Have Helped?

• Slower growth of wages
• Faster privatization
• Resolution of legal uncertainties
And then there was monetary unification

- Old East German marks were converted into West German deutschmarks at a rate of 1 to 1, satisfying the demand in East Germany for “real money.”
- This allowed East German wages to match West German wages immediately, despite the fact that productivity in East German firms was only a third West German levels.
which would have cut East German wages to half of West German levels, have made a difference (increasing employment and limiting recession in the East)?

– A) Yes
– B) No
• Answer: a lower conversion rate would likely have made little difference.
  – West German unions did the bargaining on behalf of East German workers. They would have had the same incentive to push up wages to protect themselves from low wage competition.
  – Politicians worried about large-scale migration would have had the same incentive to acquiesce.
So what is the situation now?
GDP per capita is now within 30% of Western levels (gap in household incomes is smaller due to transfers). Some evidence of convergence here, but not much.
But convergence has been slow. This figure suggests that it will take 25 years even if the east grows at 4% per capita per annum (all trajectories assume western growth at 1.8%).
Even worse, some worry that that convergence has actually stopped

• The unemployment rate (including disguised unemployment) is still 20%, as we saw before.

• We can see this failure of continued convergence in the second half of the 1990s on the next slide.
  – Between 1995 and 2004, real GDP growth averaged only 1.25 per cent per annum, exactly the same as in West Germany.
Can we explain why convergence slowed to a crawl?

• Maybe the initial spurt was artificial
  – It was concentrated in construction and financed by the federal government.
  – But why then didn’t the private sector take over?
• Adverse aspects of the inheritance remain
  – Large SOEs having been wiped out, most employment is in firms established since 1991. But many of these new firms are too small to exploit scale economies, invest in R&D, pay for advertising, issue bonds, etc.
    • Of course, this begs the question of why large Western firms don’t move in and establish subsidiaries. (Increasingly they do…)
  – Transfers from the west have led to generous regional government, support for the unemployed, etc., none of which makes for fevered entrepreneurial activity. But now these transfers are being cut back, resulting in difficult austerity.
    • Both of these observations suggest problems that can be overcome, but that overcoming them will take time.
Is the US a reassuring precedent?

• Before WWII, productivity in eastern Germany was 90%+ that in western Germany. Why shouldn’t the same be true again?

• The case of the US South in the middle of the 20th century is also a source of optimism.

• Recall that the South low productivity region for many decades

• And then its wages and productivity converged rapidly to the levels of the rest of the country after WWII.
  
Why the South Lagged

- Wright argues that the South effectively had a separate labor market.
- Levels of education were low.
- Hence, productivity was low.
- Hence, incomes lagged.
- And because poor blacks in particular had little political say, spending on education lagged.
Why the South Caught Up

• Wright’s explanation runs as follows.
• World War II created new employment opportunities for Southern blacks in the North and West. Hence, the traditional low-wage/low-productivity strategy was no longer feasible.
• Hence, Southern entrepreneurs and state governments began competing to attract “external” capital. That they economy was not unionized made the South an attractive destination.
• As labor flowed out and capital flowed in, incomes and productivity levels converged.
• [Or is the real explanation for the “New South” air conditioning???]
Will eastern Germany follow this example?

- The eastern states are again growing faster than the west
- The eastern states are the obvious place to take advantage of opportunities for assembly and parts fabrication in the lower wage Eastern European countries.
- As norms adjust to Western levels, investment will become more attractive.
- As migration to the western states continues, need for subsidies for the unemployed and for pensioners will decline, leading to a more competitive labor market.
- Competition for investment will intensify, and local governments will seek to make investment in the region more attractive.
- But norms are slow to change, and there is considerable resistance to migration.
There is some sign of this happening

• Unions and government finally recognize that convergence will require more flexibility in the eastern states.
• Unions are no longer insisting on uniform wages negotiated through nation-wide agreements.
• They are allowing more flexibility in work rules, hours etc.
• Companies like BMW (which built a new high-tech factory in the east) and DHL (which chose Leipzig as its new hub in 2006) see this as attractive.
• So maybe the eastern states will now finally the pioneer new, more flexible modes of employment and compensation that Germany needs, and thereby successfully converge with the western states.

• On the other hand, there is pressure from Eastern Europe. Slovakia and Poland are increasingly doing many of the same things, and labor costs there are only a fraction of German levels.
How quickly will the process of convergence be completed?

- Only time will tell…