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The Rock Star and the Dictator: Udo Lindenberg's East German Celebrity Diplomacy

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Abstract

In the 1980s, several unusual public interactions took place between West German rock star Udo Lindenberg and East German dictator Erich Honecker. On the surface, their exchanges concerned whether Lindenberg would be allowed to tour in East Germany. Beneath the surface, however, these interactions constituted a challenge to East German cultural policy and restrictions on freedom of expression. Despite this, Honecker sought to harness the musician's appeal in the German Democratic Republic's fight against North Atlantic Treaty Organization nuclear missiles. The story of the rock star and the dictator thus reveals the parameters and limits of East German soft power diplomacy.

Keywords: Cold War; Germany; German Democratic Republic (GDR); Popular Culture; Political Concert; Rock Music; Star Power; Youth Culture

In 1983, West German rock star Udo Lindenberg wrote a song that sardonically mocked the general secretary of East Germany, Erich Honecker. The song became, perhaps unsurprisingly, a massive hit in both the Federal Republic of Germany (FRG) and the German Democratic Republic (GDR). Shortly after, the rock star wrote to Honecker, asking to be allowed to play a concert in the GDR. What followed was completely unexpected. Erich Honecker wrote back. And even more surprisingly, Lindenberg got his wish and was allowed to play at the GDR's premier musical venue, the Palace of the Republic, later that year. The strange story does not end there, however. Lindenberg had previously met with Chancellor Helmut Schmidt to discuss youth issues off the back of a concert he played in support of the West German Social Democratic Party (SDP). Then in 1987, Lindenberg and Honecker conducted a public exchange of symbolic gifts and met in person in front of photographers from around the world. Finally, as the Berlin Wall came down in 1989, the musician was awarded the *Bundesverdienstkreuz am Bande*, one of West Germany's high civilian honours, for his work improving German-German relations.¹ Such an extraordinary story raises many questions. What could have possessed Erich Honecker to

engage with Lindenberg on the rocker's own terms? And why did both politicians and fans take Lindenberg's attempts to conduct his own brand of rock diplomacy seriously? In the context of the cultural Cold War, rock music was so highly politicised that, once shunned by the East German regime as a corrupting capitalist influence, it became an attractive tool of soft power diplomacy, though not one that was without risk. Within German-German relations, rock acquired an extraordinary set of political signifiers that allowed it to confer political legitimacy on one of its musicians in the eyes of his fans at the same time as it was used by a dictator to protest a rival's military expansion.

There are a small number of articles that analyse this unusual story. However, they contextualise the events primarily within domestic East German political and ideological concerns. This has led scholars to a focus on Lindenberg's 1983 performance at the Palace of the Republic in East Berlin, because his participation in a concert organised as a protest against North Atlantic Treaty Organisation (NATO) nuclear missiles most directly relates to the politics of rock music in the GDR.² But this brief performance, and the lengthy negotiations with

1 Der Chef des Bundespräsidialamtes, 'Bekanntmachungen', *Bundesanzeiger* Nr. 234, 14 December 1989.

2 East German music historian Michael Rauhut has traced Lindenberg's exploits in great detail and meticulous documentation, but he contextualises them only within the East German regime's ambivalent relationship with popular culture. Michael Rauhut, *Schalmei und Lederjacke: Udo Lindenberg, BAP, Underground: Rock und Politik in den achtziger Jahren* (Berlin: Schwarzkopf & Schwarzkopf, 1996). Lorenz Lüthi also limits his account to the 1983 concert, although he argues that the concert revealed serious inconsistencies between the GDR's foreign and domestic priorities: Lorenz M. Lüthi, 'How Udo Wanted to Save the World in "Erich's Lamp Shop": Lindenberg's Concert in Honecker's East Berlin, the NATO Double-Track Decision and Communist Economic Woes', *Contemporary European History* 24, no. 1 (February 2015): 83–103; and Ingo Grabowsky's short piece outlines the 1987 meeting between Honecker and Lindenberg but offers no analysis. Ingo Grabowsky, 'Sonderzug Nach Pankow. Udo Lindenberg Und Die Deutsch-Deutsche Sehnsucht', in *Sound Der Zeit*, ed. Paul Gerhard and Ralph Schock (Göttingen: Wallstein Verlag, 2014), 493–8.

socialist party functionaries leading up to it, was only one of Lindenberg and Honecker's two major public interactions. Their second interaction took place in 1987 on the heels of a mass arrest of East German rock fans who were listening to a concert on the West Berlin side of the Wall. Reintegrating this second encounter into Honecker and Lindenberg's story reveals the importance of German-German political rivalry and the broader diplomatic context to understanding the significance of this kind of rock diplomacy. In a world where pop culture and politics were becoming ever more entwined, the dictator and the rock star sought to use each other's notoriety to gather young Germans to their respective causes and shape media discourses about some of the most pressing issues of the day, including freedom of expression and the viability of state socialism.³

This desire to tell the story from multiple perspectives, to examine both Honecker and Lindenberg's motives and the political meanings of their actions, reflects efforts by historians of international relations to internationalise the history of the Cold War.⁴ Access to the archives of Communist parties has helped to replace Western-centric accounts, which in the case of the two Germanys has meant expanding the narrative of the Cold War beyond the special relationship that the United States had with West Germany. This has helped to reframe the GDR

as an international actor with more historical agency that was formerly attributed to it, despite its membership in the heavily Soviet-influenced Eastern European bloc of socialist countries.⁵ One of the ways in which the GDR was largely free to conduct its own foreign policy was in the cultural Cold War, the contest of values and ways of seeing the world that shaped high politics and everyday experiences alongside those objects of study of the more 'traditional' Cold War, systems of political economy, military might and technological rivalry.⁶

The unlikely story of Lindenberg's rock diplomacy is therefore an interesting case study of the East German use of soft power in the late Cold War.⁷ The first encounter between the two is a clear example of a successful implementation of East German soft power; Lindenberg's star power was harnessed towards a specific goal, demonstrating against NATO nuclear missiles in Central Europe, and even when all efforts failed to prevent the missiles from being installed, international commentators still lauded Honecker for his diplomatic coup. However, the second encounter demonstrates something very different: the limits of East German soft power. In this encounter, Honecker was forced to respond to the rockstar's public criticism because of the importance of rock music to the youth of the GDR. Honecker attempted to use this encounter to establish

3 The nature of the GDR dictatorship was the focus of intense historical debate in the late 1990s and early 2000s, a backlash against the initial post-Cold War literature which characterised the GDR as a totalitarian state. Recognising that the survival of the SED state for 40 years had required some give-and-take between the regime and populace, many historians sought out new terms to capture more accurately the nature of this particular German dictatorship. Three of the most popular have proven to be 'participatory dictatorship' (Mary Fulbrook), 'welfare dictatorship' (Konrad Jarausch) and 'consensual dictatorship' (Martin Sabrow). Mary Fulbrook, *The People's State: East German Society from Hitler to Honecker* (New Haven: Yale University Press, 2005); Konrad Hugo Jarausch, *Dictatorship as Experience: Towards a Socio-Cultural History of the GDR* (New York: Berghahn Books, 1999); and Martin Sabrow, 'Der Konkurs der Konsensdiktatur. Überlegungen zum inneren Zerfall der DDR aus Kulturgeschichtlicher Perspektive', in *Weg in den Untergang: Der innere Zerfall der DDR*, ed. Konrad H. Jarausch and Martin Sabrow (Göttingen: Vandenhoeck & Ruprecht, 1999), 83–118.

4 John Lewis Gaddis, 'On Starting All Over Again: A Naive Approach to the Study of the Cold War', in *Reviewing the Cold War: Approaches, Interpretations, and Theory*, ed. Odd Arne Westad (Portland, OR: Frank Cass, 2000), 27–42.

5 Christian F. Ostermann, *Between Containment and Rollback: The United States and the Cold War in Germany* (Stanford, CA: Stanford University Press, 2021).

6 For overviews of the cultural Cold War see Jessica C. E. Gienow-Hecht and Frank Schumacher, *Culture and International History* (New York: Berghahn Books, 2003); Gordon Johnston, 'Revisiting the Cultural Cold War', *Social History* 35, no. 3 (2010): 290–307; Giles Scott-Smith, Peter Romijn, and Joes Segal, eds., *Divided Dreamworlds?: The Cultural Cold War in East and West* (Amsterdam: Amsterdam University Press, 2012). The history of music and diplomacy is also a growing subfield in its own right. For overviews see Rebekah Ahrendt, Mark Ferraguto, and Damien Mahiet, eds., *Music and Diplomacy from the Early Modern Era to the Present* (London: Palgrave Macmillan, 2014); Mario Dunkel and Sina A. Nitzsche, *Popular Music and Public Diplomacy* (Bielefeld: transcript Verlag, 2018); Danielle Fosler-Lussier, *Music in America's Cold War Diplomacy* (Oakland: University of California Press, 2015); and Frédéric Ramel and Cécile Prévost-Thomas, eds., *International Relations, Music and Diplomacy: Sounds and Voices on the International Stage* (London: Palgrave Macmillan, 2019).

7 The concept of soft power as an attractive element in diplomacy, distinct from coercive measures or payments, was first developed by Joseph Nye in the late 1980s. See Joseph S. Nye, *Soft Power: The Means to Success in World Politics* (New York: Public Affairs, 2004); Joseph S. Nye, 'Soft Power and Public Diplomacy Revisited', *The Hague Journal of Diplomacy* 14, nos 1–2 (22 April 2019): 7–20.

himself as someone who supported rock music, but he remained on the defensive and his meeting with Lindenberg even threatened to overshadow the most important diplomatic achievement of his career: his state visit to Bonn in

1987. It is not an overstatement to say that, in this case, the musical tastes of East German teens and young adults limited their leader's diplomatic options.

A Particularly German Authenticity

Udo Lindenberg built his musical career on German-language lyrics and a German-German love story. German rock songs targeting the popular market were nearly always sung in English during the 1970s (and 1960s before). This distinguished rock songs from German-language *Schlager* (schmaltzy radio hits) that had preceded them as a form of popular musical culture. English helped to provide rock songs of this era with the sense of authentic rebellion that the genre was best known for, in part because the German-language Schlager typically did not include critical lyrics or make political statements. As Edward Larkey has argued, in West Germany in the 1960s and 1970s, the use of English lyrics 'increasingly became a sign of artistic prowess and intent, demonstrating global competitiveness and legitimacy, particularly in the rock genre, where its use dominated'.⁸ Lindenberg's decision to write his lyrics almost entirely in colloquial German was very unusual.

Lindenberg was not the only popular West German musician to sing in German at the time, however his intended audience differed from the other pioneering German-language rock bands of the 1970s. Lindenberg carved out a space for himself between the two existing forms of German-language rock music: left-wing polit-rock and Krautrock. Polit-rock, which today maintains a hallowed position in the histories and memories of West German rock fans and experts, was limited to audiences of a relatively small number of left-wing radicals and sympathisers. The lyrics of Ton Steine Scherben (Clay Stone Shards), the best known

of the polit-rock bands, spoke directly to the radical Left: 'Destroy that which destroys you' ('Macht kaputt was Euch kaputt macht'), 'No power for nobody' ('Keine Macht für Niemand') and, for the squatters' movement, 'This is Our House' ('Das ist unser Haus'). Krautrock, on the other hand, was an extremely diverse collection of bands engaged in sophisticated musical experimentation that was oriented towards an international market. Neither of these German-language rock traditions appealed to the general West German youth cultural market – nor did they try to.

Lindenberg, however, wrote his German-language songs to appeal to the majority of German youth. His primary goal, especially early in his career, was to sell albums. After nearly a decade in the Hamburg music scene, his first big success came with the album *Alles klar auf der Andrea Doria* (*All's Well on the Andrea Doria*), released in 1974. It featured many humorous songs, most concerning everyday life, with lyrics about unrequited love, the local jazz club, an old sea captain and running away from home. One well-known ballad from this album, 'The Girl from East Berlin' – the only song on the album with overtly political content – tells of a brief affair between the singer and a woman who lived in East Berlin. In it, Lindenberg bemoans the couple's forced separation, singing 'We just want to be together, even [for] just a little longer', once his single-day visa has expired and he must cross back to West Berlin. The two lovers dream of a day when they not only can remain together but can attend a rock

8 Edward Larkey, 'Just for Fun? Language Choice in German Popular Music', *Popular Music and Society* 24, no. 3 (Fall 2000): 4–5.

festival on Alexanderplatz ‘with The Rolling Stones and a band from Moscow’.⁹

Though sung in the first person, it is unlikely that Udo Lindenberg was recounting one of his own personal experiences. In this song, as in many of his others, he employed the lyrical ‘I’ rather than the literal first person. This practice, called *Rollenlyrik* (role-playing verse), has a long tradition in German song writing and harkens back particularly to German cabaret of the inter-war period.¹⁰ Throughout the 1970s and 1980s, Lindenberg associated himself strongly with German cabaret by performing songs from the 1930s at nearly all of his concerts and by including them on two of his best-selling albums of the 1980s. He chose well-known ballads that his German audiences would recognise and referenced stars like Marlene Dietrich in his songs to make

his homage to the German cabaret tradition clear.¹¹

When, 10 years after Lindenberg had begun singing in German, a new form of pop music finally made German-language lyrics hip, Udo was already firmly established as the godfather of German-language rock music. He was widely acknowledged as the first German rock star who had not imitated the Beatles or the Rolling Stones, a reputation based on his persistent use of witty, colloquial German and on taking inspiration from the traditions of German cabaret.¹² His position as the booster of German-language musical tradition firmly established, Udo immersed himself in the rapidly changing landscape of youth politics in the early 1980s in a bid to expand his peace activism – and to revive his flagging record sales.

Finding Commercial Appeal in a New Political Reality

After releasing albums that ranked third, fourth and eighth on the German charts in 1974, 1975 and 1976, Lindenberg’s albums languished in the double digits through the rest of the 1970s.¹³ In an effort to revitalise his career, Lindenberg began to write songs that put to music his young fans’ anxieties and desires, mixing them with his trademark humour. Whereas Lindenberg’s hits in the early 1970s painted scenes from the alluring-yet-precarious life of a musician or the fading of love’s first bloom,¹⁴ in the 1980s he began writing songs with political messages. For the first time in West Germany’s post-war existence, teens and young adults faced a frightening combination of permanent structural unemployment, environmental destruction

and nuclear arms proliferation that threatened to make their own cities and towns the targets of a renewed Cold War conflict. Lindenberg’s compositions from the early 1980s were set to harder music that was more obviously rock than pop. In his lyrics he asked world leaders ‘What is War For?’ and sang about nervous energy exploding into street violence in ‘Straßenfieber’ (Street Fever).¹⁵

Udo was hardly the first West German musician to get into politics by incorporating political messages into his songs, raising money for charity or playing in support of a political party. But his comeback was notable because he was able to combine activist legitimacy and German

9 Udo Lindenberg, ‘Wir wollen doch einfach nur zusammen sein (Mädchen aus Ostberlin)’, in *Alles klar auf der Andrea Doria*, (LP, Telefunken, 1973).

10 Annette Blühdorn, *Pop and Poetry – Pleasure and Protest: Udo Lindenberg, Konstantin Wecker and the Tradition of German Cabaret* (Oxford: Peter Lang, 2003), 155.

11 For example, his 1981 album *Udopia* included the track ‘Kann denn Liebe Sünde sein’ (originally 1938, Bruno Balz, Zarah Leander) and the 1986 album *Phönix* included ‘Ich weiß nicht, zu wem ich gehöre’ (originally 1932, Friedrich Hollaender, Robert Liebmann, Anna Sten). Blühdorn, *Pop and Poetry – Pleasure and Protest*, 162–3.

12 ‘Neue Deutsche Welle schwappt in die USA’, *Die Welt*, 29 September 1983. Nina Hagen and Herbert Grönemeyer are also often acknowledged as early pioneers of German-language pop. Though they both became politically active in the mid-1980s, neither of them engaged in the kind of German-German ‘rock diplomacy’ described later in this article.

13 ‘Offizielle Deutsche Charts’, accessed 26 August 2018, <https://www.offiziellecharts.de/>.

14 Udo Lindenberg, ‘Alles klar auf der Andrea Doria’, LP, *Alles klar auf der Andrea Doria*, Telefunken, 1973. Udo Lindenberg, ‘Cello’, LP, *Alles klar auf der Andrea Doria*, Telefunken, 1973.

15 Udo Lindenberg and Pascal Kravetz, ‘Wozu sind Kriege da?’, Single, Telefunken, 1981; Udo Lindenberg, ‘Straßenfieber’, *Udopia*, LP & CD, Teldec, 1981.

lyrics with commercial success in a way that had not been possible in West Germany in the 1970s. When Lindenberg rebooted his career in 1981 with his *Udopia* album, he was already 35 years old (b. 1946): not exactly one of the youth. But his links to Hamburg's squatting scene and his participation in the peace movement endowed him with political legitimacy in the eyes of rock fans.¹⁶ At the same time, his musical expression of the new difficulties that youth felt they faced and his humorous lyrics won him the acceptance of large numbers of mainstream pop music fans. In the 1970s, the construction of cultural legitimacy in rock music had worked differently. If a band were political (which at this time always meant on the political Left), they had a difficult time capitalising on their popularity commercially. Ton Steine Scherben, for example, were always broke and eventually moved from West Berlin to a small town in the middle of nowhere to get away from the constant requests to play at political rallies and squatted houses for free.¹⁷ By the early 1980s, Lindenberg was able to enjoy commercial success and maintain his political credibility in the eyes of most young music consumers.

Circumstances in Germany had also changed such that, by the early 1980s, Lindenberg's early embrace of German language lyrics lent him

cultural legitimacy in a way that it had not in the 1970s. In an ironic turn, it was West Germany's increasingly secure rank among the economically successful countries of the West that contributed to a desire for a German pop culture that was more inward-facing and self-referential. Foreign correspondents in Bonn and West Berlin noted the new urge for a clearer national identity and greater cultural independence. In the autumn of 1981, the chief of the *New York Times*' bureau in Bonn wrote that 'over the last few months, something has shaken loose in the country that for so long seemed to be the United States' sturdiest, most eager ally'.¹⁸ The turn against the political and cultural leadership of the United States that, for the West German Left had developed over the course of the Vietnam War, was spreading to mainstream youth and popular culture. For many music fans these trends manifested in a desire for songs dealing with German problems in German lyrics. This was not the reappearance of nationalism but rather a manifestation of the sentiment that English lyrics or US culture were not better or more desirable than German pop music. One 21-year-old student put it succinctly, saying 'there used to be a time when it was great to use American words and expressions. People say now – "Why not say it in German?"'¹⁹

The Special Train to Pankow

It was in 1983 that Lindenberg released the song that would forever link him with the GDR and its leader, Erich Honecker, who Lindenberg irreverently dubbed 'Honi' (and later, 'Honey'). The 'Sonderzug nach Pankow' ('Special Train to Pankow'), set to the tune of 'Chattanooga

Choo-choo' over a rock beat, badly mocked the East German general secretary. By the time he wrote the hit, Lindenberg had been trying to secure permission to tour East Germany for four years, and in this song his frustrations burst out. The singer asks an imaginary interlocutor

16 The squatting and peace movements were both part of a wave of New Social Movements that swept across Europe in the early 1980s. Squatters were locally based but internationally networked activists fighting for access to European city centres through affordable rents and shared public spaces, like youth centres, by occupying buildings. The peace movement organised protest actions against NATO's decision to station nuclear missiles in Central Europe, advancements in nuclear weapons technology, and actions that destabilised the balance of power, like the Soviet invasion of Afghanistan. An independent peace movement in the GDR, i.e. not state sanctioned, grew under the protection of the Evangelical churches into an effective resistance movement against the East German regime. See Roger Karapin, *Protest Politics in Germany: Movements on the Left and Right since the 1960s* (University Park: Pennsylvania State University Press, 2007). For the broader international peace discourse see Petra Goedde, *The Politics of Peace: A Global Cold War History* (Oxford: Oxford University Press, 2019).

17 Clara, 'Ton Steine Scherben: Die Legendären Urväter', *Spex*, January 1981.

18 John Vinocur, 'The German Malaise', *The New York Times*, 15 November 1981.

19 James M. Markham, 'Youths in West Germany Shake Off the Past', *The New York Times*, 14 August 1983.

if ‘this is the special train to Pankow’, explaining that he needs to speak with ‘your Indian chief’ about playing with his band.²⁰ Lindenberg brazenly invites himself for a drink at Honecker’s personal residence to discuss his prospects but assures his audience not to worry; he will bring some good cognac with him. The lyrics then get to the heart of the matter as Lindenberg complains that all sorts of ‘pop-music buffoons’ (*Schlageraffen*) are allowed to play at the Palace of the Republic, the home of the East German parliament and the state’s premier concert venue; it is only the poor ‘little Udo who isn’t allowed’. Using a catchy rhyme, the singer goes on to ask if Honecker ‘is really such pig-headed goblin’ that he won’t let Lindenberg sing in the workers’ and peasants’ state.²¹ Then, in a particularly audacious tack, Lindenberg doubles back seemingly to claim that Honecker is probably not such a bad guy. Lindenberg bets that ‘deep down Honecker is really a rocker’ who hides in his bathroom, puts on a leather jacket and listens to Western rock music in secret. Alongside mocking Erich Honecker personally, the song also drew attention to the GDR’s precarious international position at the time. Lindenberg sings of the GDR’s uncertain finances (‘Hey, Honey, I’ll sing on the cheap’) and Soviet dominance over East Germany. To demonstrate this last point, the song ends with one sentence in Russian. It translates as: ‘Comrade Erich, by the way, the Supreme Soviet has no objections to the appearance of Mr. Lindenberg in the GDR.’²²

In penning these lyrics, Lindenberg drew on a long tradition of using rock music to criticise, subvert, dissent and poke fun, one that had special relevance to audiences in Eastern Europe. Early studies written shortly after the end of the Cold War emphasised rock music’s ability to unite young people against repressive states and characterised youthful rebellion through rock music as symptoms of socialism’s decline.²³ A wave of more recent scholarship, often focusing on case studies in a single country, makes a more nuanced argument. It is unlikely that rock music served primarily to turn or unite young people against socialism. Instead, rock music’s political significance derived from its embeddedness in highly politicised national music industries and the competing values systems of the two dominant ideological systems. The second of these points suggests that Eastern European audiences were attuned to the potential significance of an exchange of letters between a Western rock star and the leader of an Eastern Bloc country.²⁴

From the advent of the GDR, its leaders struggled to reconcile a youth culture built around the products of the capitalist West with their goal of using culture to shape ‘the socialist personality’ in East German youth, forming them into passionate leaders who would take the GDR from ‘actually existing socialism’ to full communism. It was none other than Erich Honecker who in 1965 stood before the Eleventh Plenum of the Central Committee of the Socialist Unity Party (SED) and railed against the ‘immoral’ influence

20 Pankow was the name of the special settlement for East German party leaders located just outside of East Berlin. In the song, Lindenberg refers to Erich Honecker as the GDR’s ‘Oberindianer’.

21 ‘Bist Du denn wirklich so ein sturer Schrat / warum läßt Du mich nicht singen im Arbeiter-und-Bauern-Staat?’

22 Udo Lindenberg, ‘Sonderzug nach Pankow’, LP, *Odyssee*, Polydor Records, 1983.

23 Timothy W. Ryback, ed., *Rock Around the Bloc: A History of Rock Music in Eastern Europe and the Soviet Union* (Oxford: Oxford University Press, 1990); Sabrina Petra Ramet, *Rocking The State: Rock Music And Politics In Eastern Europe And Russia* (Boulder, CO: Westview Press, 1994).

24 Alexei Yurchak, *Everything Was Forever, Until It Was No More: The Last Soviet Generation* (Princeton, NJ: Princeton University Press, 2006); Sergei Ivanovich Zhuk, *Rock and Roll in the Rocket City: The West, Identity, and Ideology in Soviet Dniepropetrovsk, 1960–1985* (Washington, DC: Woodrow Wilson Center Press, 2010); Marta Rendla, ‘The Influence of Western Trends on Slovene Popular Culture from the 1950s to the 1970s’, *Slovene Studies* 33, no. 1 (May 2011): 85–95; Grzegorz Piotrowski, ‘Jarocin: A Free Enclave behind the Iron Curtain’, *East Central Europe* 38, nos 2/3 (July 2011): 291–306; William Jay Risch, *Youth and Rock in the Soviet Bloc: Youth Cultures, Music, and the State in Russia and Eastern Europe* (Lanham, MD: Lexington Books, 2015); Ewa Mazierska, *Popular Music in Eastern Europe: Breaking the Cold War Paradigm* (London: Palgrave Macmillan, 2016); Gleb Tsipursky, *Socialist Fun: Youth, Consumption, and State-Sponsored Popular Culture in the Soviet Union, 1945–1970* (Pittsburgh, PA: University of Pittsburgh Press, 2016); Jan Dutoit, ‘Die Geschichte des Liedes “Ivo Lola”. Ein Beitrag zum Verhältnis zwischen Rockmusik und Politik im sozialistischen Jugoslawien’, *Südost-Forschungen* 76, no. 1 (December 2017): 162–86; Petrică Mogoș and Pauwke Berkers, ‘Navigating the Margins between Consent and Dissent: Mechanisms of Creative Control and Rock Music in Late Socialist Romania’, *East European Politics & Societies* 32, no. 1 (February 2018): 56–77; Trever Hagen, *Living in The Merry Ghetto: The Music and Politics of the Czech Underground* (London: Oxford University Press, 2019); and Jan Blüml, ‘Beatlephiles and Zappists: Rock Fandom in Communist Czechoslovakia in the Context of the Scene in Brno in the 1980s’, *Forum Historiae*, no. 2 (July 2020): 36–57.

of West German radio that, he claimed, had already led to criminal acts.²⁵ This fiery speech followed on the heels of a cancelled experiment to encourage youthful musical expression through the formation of amateur *Beat* bands, what the East Germans then called rock bands. Too late, the regime had realised that above and beyond rock's propensity for irreverent and critical lyrics, the formation of amateur rock bands broke the East German state's monopoly on what Peter Wicke has called 'publicity', the broadcasting of information and commentary.²⁶ However, despite periodic waves of repression and a state-controlled licensing system for public performances, even East Germany's most popular rock band, Die Puhdys, were adept at transmitting multivalent messages via their lyrics to their audiences, and their audiences were adept at deciphering these. This was one reason why Udo Lindenberg's sophisticated word play was so popular in the GDR. The great irony of East German repression of rock music, especially in the 1970s and 1980s, was that young people of this generation had internalised some of the most important values of socialism including a strong work ethic, feelings of responsibility to their society, atheism and sympathy with anti-imperialism. Like Lindenberg, young East Germans'

political sympathies aligned, to an extent, with those of the SED, but the continual repression of new forms of rock music, like punk, turned the genre into a ready-made tool of rebellion for those who sought one out.²⁷

'Sonderzug nach Pankow' was a massive success in West Germany where it shot to number five on the singles charts. It was also a favourite in East Germany. The lyrics spoke directly to East German music fans of all ages. To picture Erich Honecker in a leather jacket perched on his toilet listening furtively to Western radio was funny precisely because listening to banned music in secret was one of the shared experiences of growing up in the GDR. Both 'Sonderzug nach Pankow' and Glen Miller's original 'Chattanooga Choo-choo' were immediately listed on East Germany's index of banned songs.²⁸ However, this did not stop young East German fans from playing the song in discos and student dormitories.²⁹ Lindenberg chose this moment, as his infamous song was being played widely on Western radio stations broadcasting deep into the GDR, to write a letter to Honecker requesting permission to perform in East Germany. And Honecker wrote back!

25 Notably, Honecker was by this point serving as head of security and not in his former position as head of the East German youth organisation, the Freie Deutsche Jugend (FDJ). Among the criminal acts he cited in his speech were rape, hooliganism and binge drinking while shirking work. '11. Tagung des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands in Berlin vom 15. bis 17. Dezember 1965' (17 December 1965), DY 30/IV 2/1/335, Stiftung Archiv der Parteien und Massenorganisationen der DDR im Bundesarchiv (Foundation Archive of the Parties and Mass Organizations of the GDR in the Federal Archives of Germany) (SAPMO-BArch), Berlin.

26 Peter Wicke, 'The Times They Are A-Changin', *Peace Review* 5, no. 2 (1993): 200.

27 The literature on rock music in East Germany is extensive and volumes on particular subgenres and their associated subcultural scenes are common. Works that examine rock music in general in the 1970s and 1980s include Kirkland A. Fulk, *Sounds German: Popular Music in Post-War Germany at the Crossroads of the National and Transnational* (New York: Berghahn Books, 2020); Sascha Trültzsch and Thomas Wilke, *Heißer Sommer – Coole Beats. Zur Populären Musik Und Ihren Medialen Repräsentationen in Der DDR* (Frankfurt am Main: Peter Lang, 2009); Bernd Lindner, *DDR – Rock & Pop* (Cologne: Komet, 2008); Barbara Hammerschmitt and Bernd Lindner, *Rock! Jugend und Musik in Deutschland* (Berlin: Ch. Links Verlag, 2005); Michael Rauhut, 'Rock Und Rebellion: Altenburg 1976', *Thüringen Blätter Zur Landeskunde* 33 (2003): 1–8; Michael Rauhut, *Rock in der DDR: 1964 bis 1989* (Bonn: Bundeszentrale für Politische Bildung, 2002); Georg Maas and Hartmut Reszel, 'Whatever Happened to . . . : The Decline and Renaissance of Rock in the Former GDR', *Popular Music* 17, no. 3 (1998): 267–77; Peter Wicke and Lothar Müller, *Rockmusik und Politik: Analysen, Interviews und Dokumente* (Berlin: Ch. Links Verlag, 1996); Olaf Leitner, *Rockszene DDR: Aspekte einer Massenkultur im Sozialismus* (Reinbek bei Hamburg: Rowohlt, 1983). For discussion of the ideology behind the regime's decisions see Esther von Richthofen, *Bringing Culture to the Masses: Control, Compromise and Participation in the GDR* (New York: Berghahn Books, 2009). On young East Germans' social values see Harry Müller, 'Jugend im Wandel ihrer Werte: IS II' (Leipzig: Zentralinstitut für Jugendforschung, 1985).

28 'Rechtliche Einschätzung des Liedtextes "Entschuldigen Sie, ist das der Sonderzug nach Pankow" von Udo Lindenberg' (Berlin, 7 February 1983), MfS, BV Berlin, Abt. OT 22, Die Archive der Bundesbeauftragten für die Stasiunterlagen (The Archives of the Federal Commissioner for Stasi Documents) (BStU), Berlin; 'Ey, ich hab' Udo gesehen', *Der Spiegel* no. 44 (1983): 233.

29 'Information über das Abspielen und Verbreiten eines von Udo Lindenberg/BRD komponierten Liedes mit die DDR diskriminierendem Inhalt in Diskotheken und anderen Einrichtungen' (Leipzig, 31 January 1983), MfS, HA XX, ZMA 2003, BStU. Although the song was widely played, doing so was not without risk. The penalty was most often a fine, but Michael Rauhut reports that two DJs from the town of Guben were sentenced to five months in prison for playing the song. Rauhut, *Schalmei und Lederjacks*, 81.

A First Round: Negotiating a Concert

In his first letter to Honecker in August 1983, Lindenberg stopped short of apologising for ‘Sonderzug nach Pankow’, explaining that his frustration had simply burst out after years of being denied the chance to perform in the GDR. He urged Honecker to view the song ‘as a document of my irritation’ and reassured the general secretary that this song was not meant to discredit him. By way of providing evidence that he had Honecker’s best interests at heart, Lindenberg wrote that he had

refrained from travelling to you from West Berlin, my current residence. Perhaps you are laughing at me now, but it could have been that I was turned away by your people at the border, and the next day the incident would have been in the Springer newspapers. I have no interest in that.

Whether Honecker recognised the veiled threat alongside Lindenberg’s claims of solidarity is unknown.³⁰

Several considerations influenced Honecker’s decision to reply to Lindenberg and entertain the star’s request to play in the GDR, but among these, the rock musician’s unwavering support of the West German peace movement and his calls for a nuclear-weapon-free Central Europe were the most important. Throughout the 1970s, the East German press had avoided mention of Lindenberg, despite his popularity in the GDR. This changed suddenly in 1981 after Lindenberg signed the Krefeld Appeal. This petition, written by leaders of the West German peace

movement, urged the federal government to reverse its approval of NATO’s double-track decision to station mid-range nuclear missiles in Central Europe and to instead advocate for an end to the nuclear arms race. Alongside other celebrity-signatories Lindenberg performed in publicity concerts with the associated organisation Artists for Peace.³¹ The East German Socialist Unity Party’s (SED) mouthpiece newspaper, *Neues Deutschland*, ran no fewer than 10 articles mentioning Lindenberg’s peace activism between September 1981 and September 1982.³² East German television also produced a news magazine special to showcase the Artists for Peace concert in Bochum held that autumn.³³

Directly or indirectly, two prominent personalities from opposite sides of the Iron Curtain influenced Honecker’s decision. As head of the Free German Youth (FDJ), Egon Krenz was in charge of coordinating an East Berlin concert that would serve as a political demonstration against the NATO decision. Having Lindenberg perform at the planned concert would be a propaganda victory, Krenz argued. Given that Lindenberg would share the stage with other performers, he added, it would not count as a ‘concert by Udo Lindenberg alone’.³⁴ To sweeten the deal, Lindenberg’s agent, Fritz Rau, offered to facilitate the appearance of the famous US actor, musician and civil rights activist Harry Belafonte at the concert, as long as Lindenberg was allowed to perform. Belafonte had been a close friend of Dr Martin Luther King Jr., had played at the West German Artists for

30 Udo Lindenberg to Erich Honecker, 23 August 1983, DY 30/ 2525, SAPMO-BArch. Axel Springer, publisher of the most popular West German tabloid, Bild, and the news magazine Der Spiegel, was conservative in its political orientation and rarely missed a chance to criticise either the GDR or the West German political Left.

31 Udo Baron, *Kalter Krieg und heisser Frieden: der Einfluss der SED und ihrer westdeutschen Verbündeten auf die Partei ‘Die Grünen’* (Münster: LIT Verlag, 2003), 99. The SED provided funding to the drafters of the Krefeld Appeal, but the East German party could not initiate or control the outpouring of public support in the Federal Republic.

32 ‘Nein zum NATO-Raketenbeschluss!’, *Neues Deutschland*, 10 September 1981; ‘Namhafte Künstler der BRD für den “Krefelder Appell”’, *Neues Deutschland*, 20 October 1981; ‘20,000 Westberliner feierten in der Waldbühne eindrucksvolles Friedensfest’, *Neues Deutschland*, 10 May 1982; ‘Künstler der BRD unterstützen den Krefelder Appell’, *Neues Deutschland*, 10 June 1982; ‘DPA: Rätselhafter Selbstverbrennung’, *Neues Deutschland*, 11 June 1982; ‘Künstler der BRD verlangen: Keine neuen USA-Raketen!’, *Neues Deutschland*, 10 August 1982; Ralf Bachmann, ‘Künstler der BRD bereiten Bochumer Friedensfest vor’, *Neues Deutschland*, 11 August 1982; ‘Für Frieden und Abrüstung lohnt sich jeder Einsatz’, *Neues Deutschland*, 4 September 1982; ‘“Gemeinsam etwas gegen die amerikanischen Raketen tun” Anliegen der Teilnehmer des Bochumer Friedensfestivals’, *Neues Deutschland*, 8 September 1982; and Werner Otto, ‘Das Bekenntnis der Künstler: Jetzt für den Frieden aktiv sein’, *Neues Deutschland*, 13 September 1982.

33 ‘Fernsehen, Funk und Berliner Bühnen am Wochenende’, *Neues Deutschland*, 11 September 1982.

34 Rauhut, *Schalmei und Lederjacke*, 73–4.

Peace festival in Bochum, and, like his friend and mentor Paul Robeson, was a frequent critic of US foreign policy with probable ties to the United States Communist Party. Belafonte's participation was particularly attractive to Krenz, who wrote to Honecker that 'after Cuba, the

GDR will be the first socialist country visited by Harry Belafonte. A world-famous artist, [his presidency] of the international artists' association Performers and Artists for Nuclear Disarmament will give his appearance added international weight'.³⁵

Udo's East Berlin Performance and its Consequences

The long-awaited concert finally took place in the Palace of the Republic on 25 October 1983 as the closing event of the FDJ song tour 'For World Peace – Down with the NATO Rocket Decision'. From the moment he crossed the inter-German border, Lindenberg was dogged by several Stasi agents, who photographed his movements and recorded his interactions with West German film teams but did not otherwise interfere.³⁶ Hoping to meet the star, Udo's East German fans gathered outside of the venue in the parking lot. Not until half past midnight were authorities able to disperse them all – one hour after the rock star had already returned to West Berlin. In front of an audience of blue-shirted FDJ faithful and many undercover Stasi agents, Lindenberg played a short set of 15 minutes that featured two of his best-known anti-war songs, an emotional going away song, and a shortened version of 'I'm a Rocker'. The songs were all pre-approved by FDJ leadership; 'Sonderzug nach Pankow' was not on the menu. Coverage in *Neues Deutschland* emphasised Lindenberg's words rather than his music, reporting, for example, his statement that 'people in the West and the East want the same thing, they want peace and no Cold War and no German-German ice age'. The prominently placed article did not review his performance or mention audience excitement, as it did for Harry Belafonte's appearance.³⁷

In agreeing to Udo Lindenberg's performance in East Berlin, Honecker took a calculated gamble. If the rock star was well behaved, the East German regime would reinforce its relationship with Helmut Schmidt's Social Democratic government in the Federal Republic, but there was also a chance that Lindenberg's unpredictable nature would lead him to embarrass the GDR leadership during his performance and possibly strain East Germany's increasingly tense relationship with the Soviet Union.

The NATO double-track decision and the tensions it raised between the superpowers threatened the hard-won improvement in German-German relations that had tentatively emerged by the late 1970s. Honecker had presided over 10 years of growing cooperation with the Federal Republic, a diplomatic situation that had brought many benefits to the GDR. In the German-German Basic Treaty of 1972, the Federal Republic had recognised the German Democratic Republic as an independent country and ended its claim to be the only legitimate state representative of the German nation. The transition to 'good neighbourly relations' led to follow-up accords that eased contact between family members separated by the German-German border, allowed bilateral trade to double between 1970 and 1975, and more than doubled West German payments for 'humanitarian relief' between 1975 and 1979.³⁸ These diplomatic

35 Quoted in Rauhut, *Schalmei und Lederjacke*, 83.

36 Hauptabteilung VI, PKE Invalidenstraße, 'Bericht zu Film- und Fotoaufnahmen im Vorfeld und im Hinterland der Grenzübergangsstelle Invalidenstraße im Zusammenhang mit der Einreise Udo Lindenberg zum Auftritt in der Hauptstadt der DDR, Berlin' (25 October 1983), MFS, HA VI, 974, S. 10–12, BSTU.

37 Peter Berger and Günter Görtz, 'Lieder, die Kraft geben im Kampf um den Frieden', *Neues Deutschland*, 26 October 1983.

38 Hans-Hermann Hertle, 'Germany in the Last Decade of the Cold War', in *The Last Decade of the Cold War: From Conflict Escalation to Conflict Transformation*, ed. Olav Njolstad (London: Frank Cass, 2004), 222.

strategies were also not without risk. To compensate for increasing contact between East and West Germans, and the ever-present threat of ideological corruption that this posed, the number of Stasi agents was doubled between 1970 and 1980, from 40,000 to 80,000. Moreover, by 1983 a different type of risk had become apparent to the SED leaders, if not yet to the public: the East German economy was completely dependent on West German loans and aid, making it vital for Honecker to find ways to maintain good relations with Helmut Kohl's conservative government without alienating the Soviets.³⁹

Honecker also stood to gain domestically from allowing Lindenberg to perform. Typically, the solidarity concert series Festival of Political Songs featured lesser-known international performers from socialist-aligned countries or, if West German, from the political Left such as the politrock group Floh de Cologne or songwriter Dieter Süverkrüp.⁴⁰ Lindenberg's star power and activist credentials could help at home by lending the official GDR peace movement much needed legitimacy in the eyes of young East Germans. An independent peace movement was growing under the real, but limited, protection afforded by East Germany's Evangelical Churches. Between March and May of that year the Stasi had destroyed one such group, the Peace Community of Jena (*Friedensgemeinschaft Jena*), by arresting 40 of its members, interrogating them and forcibly expatriating many of them to the Federal Republic. One member of the group had earlier died under suspicious circumstances while in Stasi pre-trial custody.⁴¹

The GDR certainly benefitted from Lindenberg's performance at the peace concert. Major dailies in the US noted the political significance of his performance at the Palace of the Republic. The *New York Times* interpreted the West German

musician's short set as 'a major moment in the subtle, warming relationship between the two Germanys – and testimony to the agility of Mr. Honecker's government in deploying cultural resources for political ends'.⁴² The *Washington Post* interpreted the willingness to forgive Lindenberg for 'Sonderzug nach Pankow' as a sign that the East German government wanted to reinforce its relationship with West Germany in advance of the missile deployments scheduled for two months after the concert in the Palace of the Republic.⁴³

In the intermediate term, only Lindenberg seemed to suffer negative consequences, albeit ones of his own making. The East German state required international performers to adhere strictly to detailed negotiated agreements, a requirement that Udo Lindenberg found was easy to transgress. On his way into the Palace of the Republic, he made an unscheduled stop to greet his fans gathered outside. The musician would have known that these teens and young adults had hitchhiked across the GDR for the chance of meeting, or even just seeing, him. As he also would have known, the audience inside the Palace was composed primarily of FDJ faithful, although some of these may also have been Udo fans. Of much greater political significance was his unapproved call from the stage for both US and Soviet nuclear missiles to be removed from Central Europe. The official East German stance was that the Soviet Union's mid-range SS-20 missiles were a 'necessary measure for securing peace' while the NATO Pershing II missiles constituted an aggression that could lead to nuclear war.⁴⁴

Before the peace concert, FDJ leaders had signalled their willingness to permit Lindenberg to tour the GDR the following year, the very prize he had been working towards for so

39 Hertle, 'Germany in the Last Decade of the Cold War', 222.

40 Hauptabteilung Kulturelle Veranstaltungen, Sekretariat des ZK der FDJ, 'Konzeption für die "Tage des politischen Liedes"' vom 30.7. – 5.8.1973 unter dem Motto 'Das politische Lied als Waffe im antiimperialistischen Kampf' (n.d.), DY 24/ 7178, SAPMO-BArch; Zentralrat der FDJ, 'Programm des 11. Festival des politischen Liedes' (February 1981), DY 24/11,227, SAPMO-BArch.

41 Friedensgemeinschaft Jena, 'Dokumente zur unabhängigen Friedensbewegung' (1983), DF 02, RHArch; Henning Pietzsch, 'Interview mit Dorothea Fischer (Thea)' (18 January 2001), 27–29, ZeZe-F-01.01, ThürAZ.

42 James M. Markham, 'West German Star Sings in the East', *New York Times*, 27 October 1983.

43 William Drozdiak, 'West German Rock Star Brings His Antimissile Message to East', *Washington Post*, 27 October 1983.

44 Quotation from Egon Krenz's short speech preceding the concert. Quoted in Rauhut, *Schalmei und Lederjacke*, 86.

long. Written approval of a concert tour arrived shortly before the peace concert via a letter signed by Reinhard Heinemann, FDJ organiser of the Festival of Political Songs, and was reaffirmed by a verbal promise from Krenz on the day of the peace concert.⁴⁵ Krenz, very recently elevated to the East German Politburo, may never have intended to keep his promise. Contemporaries believed that he used the rock star's missteps to convince himself that the promised tour was too risky.⁴⁶ Krenz and Culture Minister

Kurt Hager, with Erich Honecker's approval, used information that the Stasi had collected on Lindenberg to ensure that he was never again permitted to play in the GDR.⁴⁷ Some lower ranked FDJ functionaries lobbied to save Lindenberg's East German tour, but by December 1983 the political lustre of an Udo Lindenberg concert tour in the GDR had dissipated. NATO installed its nuclear missiles in West Germany and Lindenberg's usefulness to the SED regime lessened.

Playing the GDR over the Airwaves

For his part, the rock star did not let his promised tour in the GDR slip away quietly. Lindenberg fought to overturn the withdrawal of his invitation to perform in the GDR. He prevailed on West German politicians friendly with the GDR, including Herbert Mies, Horst Schmitt and Oskar Lafontaine, to intercede on his behalf and warn the SED leadership that cancelling the concert would generate just as much negative press for the GDR as the concert in the Palace of the Republic had positive press.⁴⁸ The Western politicians were variously unable or unwilling to convince the SED leadership to allow the concert tour to take place. On 13 May 1984, Lindenberg blew any chance of a repeat performance in the GDR by contracting with the West Berlin public radio station Sender Freies Berlin II (SFB II, Radio Free Berlin) to broadcast a live, uncensored concert to his fans in East Germany.⁴⁹

The concert was a creative extravaganza that sought to unite audiences in both Germanys through a combination of insider knowledge of his lyrics, his trademark humour and a series of

unsubtle on-stage theatrical representations of problems that both audiences faced.

After informing his live West Berlin audience that fans in the GDR were also tuned in and greeting them with a big, 'Hello GDR!', Lindenberg asserted that 'Honey' must certainly be sitting in front of the 'tube' for the concert and greeted him with an ironic 'Guten Abend, Herr Staatsratsvorsitzender!' ('Good Evening, Mr. State Chairman!')⁵⁰ He then poked fun at Egon Krenz and the other GDR political notables by describing them all wearing their leather jackets, a reference to 'Sonderzug nach Pankow', and by using lyrics from one of his new songs ('Familie Kabeljau') to paint them as distracted and disconnected from the people that surround them. The rock star returned to the theme of his cancelled GDR concert tour several times during his performance, explaining how Honecker 'had enormously disappointed a lot of people, friends in the GDR and in the Federal Republic' and that his tour was apparently not 'rewarding enough for the ICBeamten of the GDR'.⁵¹ Lindenberg denounced the stationing

45 Reinhard Heinemann to Udo Lindenberg, 8 October 1983, DY 30/ 2525, SAPMO-BArch; Rauhut, *Schalmei und Lederjacke*, 90.

46 Rauhut, *Schalmei und Lederjacke*, 90.

47 'Attachment to a letter from Egon Krenz to Erich Honecker' (23 April 1984), DY 30/2525, SAPMO-BArch; Horst Dohlus et al., 'Richtlinie für die Verfahrensweise in Bezug auf den Empfang von Künstlern und Gruppen aus der BRD bzw. West-Berlin' (23 January 1984), DY 30/2525, SAPMO-BArch.

48 Udo Lindenberg to Herbert Mies, 26 March 1984, DY 30/ 2525, SAPMO-BArch. Udo Lindenberg to Horst Schmitt, 30 March 1984, DY 30/ 2525, SAPMO-BArch. Egon Krenz, 'Aktennotiz über ein Telefonat mit Oskar Lafontaine' (April 1984), DY 30/ 2525, SAPMO-BArch.

49 The live broadcast underscores that the purpose of this concert was political rather than commercial. Musicians avoid live broadcasts because they decrease ticket sales and, in the 1980s when the cassette tape ruled, would depress record sales as well since fans would tape the performance and circulate it among their friends.

50 'Information über eine Sendung des SFB II am 13.05.84 von 20.05 Uhr bis 22.30 Uhr mit Udo Lindenberg' (13 May 1984), MfS, HA XX, 20,037, BStU.

51 This pun combines the acronym for Intercontinental Ballistic Missiles (ICBM) and the German Beamten, a term for tenured civil servants.

of nuclear missiles in Europe as a misuse of power and built to a spectacular finale. As the musicians began to play the song 'Apocalypse', a troop of devils flooded onto the stage and began to dance. These were followed by four men in gasmasks holding triangular fallout signs up like shields, more dancers with 'mutations' caused by radioactivity, and finally two performers wearing

gigantic, caricatured heads of the US president and his Soviet counterpart. SFB II's announcer described the action as it happened on stage for all radio listeners.⁵² Unsurprisingly, Lindenberg was not permitted to tour Eastern Germany until January 1990, following the fall of the Berlin Wall and three years after he had played a concert in the Soviet Union.

A Second Round: Giving Gifts

In the three years following the cancellation of his GDR tour, Lindenberg continued his peace activism and his engagement with the East German music scene as best he could. The rock star tried to invite the East German women's rock group Mona Lisa to tour Europe with him, potentially making them international stars, but he was once again stopped by SED officials. He continued to communicate with the FDJ through an intermediary, offering concessions and financial incentives in the hope that the organisation would reinstate his East German concert tour. In interviews with West German radio channels, he repeatedly mentioned his continued interest in touring the GDR.⁵³

In 1987, the Cold War politics of popular culture brought the rock star and the dictator together again. It was no accident that this year also marked the 750th anniversary of the city of Berlin, an event which prompted duelling celebrations on both sides of the divided city, as both German states laid claim to Berlin's long history. For the East, this was a chance to 'shatter imperialist conceptions of an all-Berlin history or of keeping the German question open' while for the 'island' of West Berlin it was a chance to see

that 'the Wall cannot and must not turn the centre of Berlin into a periphery'.⁵⁴

The precipitating incident took place in the 'capital of the GDR', when the East German People's Police tried to disperse a crowd of young East Germans listening to a concert being held in West Berlin as part of the Western anniversary celebrations.⁵⁵ The Concert for Berlin, held on 6, 7 and 8 June, was staged directly next to the Berlin Wall in front of the Reichstag building and featured mega-stars David Bowie, New Model Army, Neil Young, the Eurhythmics and Genesis, as well as live transmission into the GDR thanks to the radio station RIAS (Radio in the American Sector). This was not the first concert to be located along the Berlin Wall and the organisers turned some of their speakers towards the GDR to ensure that East Berliners could hear. At the beginning of his set, David Bowie even greeted his fans in the GDR in German. As tensions rose between the East German police and the rock fans, who on the second day of the concert numbered about 2000, a cry of 'We want Gorbachev!' spread through the crowd.⁵⁶ Police held back more and more fans, a few bottles and cans were thrown. As the Eurhythmics played, the crowd and the police began to fight each

52 'Information über eine Sendung des SFB II am 13.05.84 von 20.05 Uhr bis 22.30 Uhr mit Udo Lindenberg', 84.

53 Rauhut, *Schalmei und Lederjacke*, 108–9.

54 First quote attributed to Kurt Hager, member of the East German Politbüro; second quote attributed to the Berlin Senate in their guidelines for the West Berlin celebration. Krijn Thijs, 'Politische Feierkonkurrenz im Jahre 1987. Die doppelte 750-Jahr-Feier in Ost- und West-Berlin', *Revue d'Allemagne et des pays de langue allemande* 49, no. 1 (16 June 2017): 71–84.

55 The SED referred to East Berlin almost obsessively, even in internal documents, as the Hauptstadt der DDR, the capital of the GDR. Even after the Four Power Agreement on Berlin in 1971, the signing of the Basic Treaty in 1972, and the GDR's subsequent recognition by many countries, the Western powers did not recognise the legal status of East Berlin as the GDR's capital and so the SED remained incredibly sensitive to any issues pertaining to the city's status.

56 Thijs, 'Politische Feierkonkurrenz im Jahre 1987. Die doppelte 750-Jahr-Feier in Ost- und West-Berlin', 82.

other while the Stasi began to arrest members of the crowd. Soon the chant was heard: ‘The Wall must go!’⁵⁷ By the next night, the last evening of the concert, the area near the Wall had been cordoned off but this did not stop rock fans from once again gathering. East German fans sang socialist songs including ‘The Internationale’, but soon the chanting started again with ‘Cops out!’, ‘Gorbachev, Gorbachev’ and ‘The Wall must go!’ – but also ‘Kreuzberg is everywhere!’, a reference to protests in the West Berlin neighbourhood earlier during the anniversary festivals.⁵⁸

Udo Lindenberg, who had staked his public image on making rock music a bridge between East and West Germans, leapt into action. On 11 June, the day before Ronald Reagan, as part of the wide-ranging Western festivities, gave his ‘Tear Down This Wall’ speech, Lindenberg published an open letter to Erich Honecker defending the East German rock fans who had tried to listen to the concert in West Berlin. The letter, published widely in West German newspapers, contained echoes of ‘Sonderzug nach Pankow’, as when the musician insisted that ‘these kids are not rioters or hooligans, they like rock n’ roll and being loose just as much as you do’. Lindenberg continued, ‘tell me Honey, from rock-freak to rock-freak: Do you still blast your rock music in secret on the toilet?’⁵⁹ He urged the general secretary to finally go out into the streets and meet some of the ‘colourful kiddies’ in his state and join them in greeting Gorbachev.⁶⁰ To aid Honecker in this pursuit Lindenberg sent him one of his own leather jackets – black with red shoulder pads – through the post. In a photo published alongside his letter, the musician posed with the jacket and a small sign that read in English, ‘To Erich Honey Honecker, Berlin GDR, 1 Leather Jacket’.⁶¹

Again, Erich Honecker wrote back. Lindenberg’s antics were shameless self-promotion, but they also levelled a real critique at East German cultural policies in general and restrictions on rock music in particular, one that Honecker needed to refute. In his own open letter, published originally in the GDR’s youth newspaper *Junge Welt* and then reprinted in West German papers, the general secretary adopted an uncharacteristically light tone.⁶² Honecker thanked Lindenberg for the surprise gift and followed with, ‘of course, the style is a matter of taste, but as for the jacket itself: It fits’. The East German leader refrained from mentioning either the arrested East German rock fans or Gorbachev and instead used the opportunity to intone two important propaganda points. He emphasised that Lindenberg’s work towards a nuclear-weapons-free Europe by the year 2000 was also a goal of the GDR, and he reiterated his often-made claim that the GDR was a country that welcomed and encouraged rock music. After suggesting that the leather jacket would be auctioned to raise money to support ‘anti-imperialist solidarity’, Honecker parried Lindenberg’s thrust with a gift of his own, a *Schalmei*. Often called a shawm in English, the multi-horned instrument was a predecessor of the modern oboe. Honecker signed off by writing ‘have fun practicing’.⁶³

Both of the gifts involved in this unusual exchange were laden with historical and cultural symbolism. The *schalmei*, especially those of the ‘Martin’s trumpet’ design that Honecker selected, had long served as a symbol of working-class culture in German socialist circles. During his youth in the Saarland, Honecker played in the *schalmei* ensemble marching band of the paramilitary Red Front Fighters’ Federation, although he, like the young Lindenberg, had played the drums. The FDJ also maintained

57 Peter Merseburger, ‘Hirngespinnste und die Wirklichkeit. Was an der Mauer passierte, und was die DDR daraus macht’, *Die Zeit*, 19 June 1987; Enno von Löwenstern, ‘Musik der Freiheit’, *Die Welt*, 10 June 1987.

58 Thijs, ‘Politische Feierkonkurrenz im Jahre 1987. Die doppelte 750-Jahr-Feier in Ost- und West-Berlin’, 82.

59 Lindenberg used the word ‘*Dröhnung*’, slang for loud music that can also carry connotations of using a drug.

60 Udo Lindenberg, ‘Offener Brief an “Honey”’, *Abendzeitung München*, 11 June 1987.

61 Rauhut, *Schalmei und Lederjacke*, 111.

62 E. Honecker, ‘Brief an Udo Lindenberg’, *Junge Welt*, 26 June 1987; Erich Honecker, ‘Zeitmosaik’, *Die Zeit*, 3 July 1987. Honecker did not write the letter himself. Instead, he tasked Hartmut König and Egon Krenz to write a draft, which he then approved. See ‘Note from Egon Krenz to Erich Honecker’ (19 June 1987), DY 30/2525, SAPMO-BArch.

63 Erich Honecker to Udo Lindenberg, 19 June 1987, DY 30/2525, SAPMO-BArch.

a *schalmei* band to play at official events and international youth gatherings, sometimes dressed in the style of 1920s socialist paramilitaries.⁶⁴ The leather jacket was similarly enmeshed in the symbolism of the workers' movement of the early twentieth century. East German iconography held that Ernst Thälmann, socialist martyr and the eponym of the GDR's organisation for young children, habitually wore a leather jacket and dock worker's hat, the uniform of his working-class origins.⁶⁵ Unlike the *schalmei*, the leather jacket had undergone a pop cultural rewriting of its symbolic associations in more recent decades. When Marlon Brando wore a leather jacket with jeans in the film *The Wild One* the jacket acquired its rebellious reputation in both German states, just as it did in the United States.⁶⁶ Rock musicians of the late 1960s and 1970s and then punks in the late 1970s and 1980s renewed the leather jacket's associations with rebellion, fun and freedom.⁶⁷

The world in which this gift exchange took place was different than that of 1983, when Lindenberg and Honecker's representatives had negotiated his single GDR concert appearance. The East-West tensions that had reached a second peak in late 1983 began to cool midway through the decade. Arms reduction negotiations between the United States and Soviet Union resumed in 1985. Despite the continuing actions of Solidarność in Poland, the Soviet Union relied only on threats to keep its European client states in line, refusing to send a military force into Poland as it had earlier to Hungary and Czechoslovakia. This was part of a broader strategy of Soviet withdrawal around the world including reducing the number of troops in Afghanistan

and lessening support for communist regimes in the 'third world'.⁶⁸

The inter-German politics had also changed drastically. This time, there was no urgent East German political campaign that Lindenberg could contribute to. By 1987, the 'special path' of friendly German-German relations had become even more important to the GDR, all while the country's relationship with the USSR was more strained than ever, in part because the Soviet Union was itself growing closer to West Germany. The Soviet Union had long objected to Honecker's increasing reliance on West German loans, and to the loosening of border controls that the GDR had traded for the hard currency. Twice, in 1984 and in 1986, Soviet leaders forced Honecker to cancel official visits to Bonn.⁶⁹ When Mikhail Gorbachev introduced *glasnost* and *perestroika* in the Soviet Union in 1986, the SED refused to follow suit.⁷⁰ Honecker was forced to straddle a fine line between the superpower that still had troops in East German territory and the political and ideological rival that was now keeping the East German economy afloat. At the same time, *glasnost* opened the way for Lindenberg to tour in the Soviet Union, which he did in the first half of 1987. Then, just as the GDR's financial woes became nearly insupportable it became clear that the Soviet Union had economic troubles of its own and would not be coming to the aid of its East German satellite.⁷¹ Instead, Gorbachev pursued closer diplomatic relations with West Germany and, after meeting with West German federal president Richard von Weizsäcker and Foreign Minister Hans-Dietrich Genscher in Moscow,

64 Klaus Oberst, *Schalmeiorchester der FDJ im Stil der 1920er Jahre*, 4 July 1987, Photography, 4 July 1987, Bild 183– 1987-0704-056, Bundesarchiv (Federal Archives of Germany) (BArch), Berlin.

65 Russel Lemmons, *Hitler's Rival: Ernst Thälmann in Myth and Memory* (Lexington: University Press of Kentucky, 2013), 33.

66 Uta G. Poiger, *Jazz, Rock, and Rebels: Cold War Politics and American Culture in a Divided Germany* (Berkeley: University of California Press, 2000), 77–9.

67 Tim Mohr, *Burning Down the Haus: Punk Rock, Revolution, and the Fall of the Berlin Wall* (Chapel Hill, NC: Algonquin Books, 2018), 228.

68 John Lewis Gaddis, *The Cold War: A New History* (New York: Penguin, 2006), 228–35; For a recent global interpretation of this period see Carole K. Fink, *Cold War: An International History*, 2nd ed. (London: Routledge, 2017).

69 Hertle, 'Germany in the Last Decade of the Cold War', 225.

70 On the domestic repercussions of this policy see Jeffrey Gedmin, *The Hidden Hand: Gorbachev and the Collapse of East Germany* (Washington, DC: American Enterprise Institute, 1992).

71 For more on the extent and causes of East Germany's economic woes see Jonathan R. Zatlín, *The Currency of Socialism: Money and Political Culture in East Germany* (New York: Cambridge University Press, 2007); Jeffrey Kopstein, *The Politics of Economic Decline in East Germany, 1945–1989* (Chapel Hill, NC: University of North Carolina Press, 1997).

finally allowed Honecker to make a state visit to the Federal Republic in September 1987.⁷²

This trip was the stage on which Udo Lindenberg and Erich Honecker's final public interaction was performed. As Honecker visited the Wupperthal house in which Friedrich Engels had been born, Lindenberg, who had been escorted to this meeting by local police, stepped out of the crowd of dignitaries with another gift.⁷³ This time it was a guitar with the peace slogan '*Gitarren statt Knarren*' (guitars not guns) inscribed on it. This was the slogan under which Lindenberg had recently completed his successful concert tour in the Soviet Union, where he played alongside the Soviet popstar Alla Pugachova.⁷⁴ As Lindenberg passed the guitar to Honecker, who was surrounded by reporters with cameras flashing and microphones at the ready, the musician once again asked the dictator if he would be allowed to tour the GDR. A visibly uncomfortable Honecker accepted the gift while trying urgently to end the conversation with Lindenberg, several times. But Lindenberg pushed on, saying that he 'has been thinking about the working situation of artists in the Federal Republic of Germany, in the GDR, also worldwide' and would like to read a statement he had prepared on the matter. Honecker replied, 'we don't have the time now, yes, but we will find the time when you appear with us again. I hope that this will happen soon. I will ask the Free German Youth to organise it', before finally managing to extract himself from the encounter.⁷⁵ As the politicians moved on to their next event, Lindenberg took advantage of the assembled reporters to read his statement. In his most overtly diplomatic approach yet, the musician asked to speak with Honecker seriously about the 'contribution that rock music can make to understanding' before playing

a quick rendition of 'Happy Birthday' on his shawm in honour of Honecker's 75th birthday.⁷⁶

Lindenberg was once again thrust back into the international spotlight, but this time West German diplomatic officials recognised the propaganda value of these exchanges. Just prior to Lindenberg and Honecker's September meeting, the German diplomatic mission to the United States covered one of Lindenberg's attempts to play his new shawm in an English-language news dispatch aimed at the US business and political communities, writing:

Two letters, the announcer intoned late Saturday (June 27) evening to 11,000 fans at an open-air festival in Göttingen (Lower Saxony), 'have accomplished more than all summit meetings'. Proclaiming a 'world premiere', the rock idol Udo Lindenberg proceeded to play a few short melodies on an unaccustomed instrument: A shawm, forerunner of the oboe, on which was inscribed, 'To Comrade Erich Honecker', party chief of the German Democratic Republic.⁷⁷

However, not everyone in West Germany was so convinced of the value of Lindenberg's exchanges with Honecker. Segments of the West German press were very critical of Lindenberg's attempts to sway Honecker. Critiques crystalized around the way Lindenberg's political activism and self-promotion were intertwined. The conservative magazine *Der Spiegel* called the scene in front of Engel's house 'Udo Lindenberg's latest PR offensive'. The magazine mocked Lindenberg for wanting to 'take political soundings of Moscow' with 'political celebrities like Egon Bahr', one of the architects of Willy Brandt's *Ostpolitik*, because the singer had presented Bahr with a copy of his latest album.⁷⁸ The newspaper *Die Zeit* was also critical of Lindenberg, writing that

72 Hertle, 'Germany in the Last Decade of the Cold War', 226.

73 The East German permanent representation in Bonn had also approved Lindenberg's visit. Walter Jakobs, 'Honey trifft Udo bei Friedrich', *Die Tageszeitung*, 10 September 1987.

74 This slogan also echoed 'swords instead of ploughshares', which was the motto of the independent peace movement in the GDR which functioned under the protection of the Evangelical Churches. Udo Lindenberg to Erich Honecker, 30 June 1987, DY 30/2525, SAPMO-BArch.

75 Rauhut, *Schalmei und Lederjacke*, 120–1.

76 Jakobs, 'Honey trifft Udo bei Friedrich'.

77 B. Karkow et al., 'Cultural Exchange: The Rock Star and the Comrade Party Leader', *The Week in Germany [Newsletter of the German Diplomatic Mission to the United States]*, 2 July 1987, 8.

78 'Beständiges Blasen', *Der Spiegel*, Nr. 38, 1987.

he 'finds a use' for everything and everyone and calling him a 'collector and an exploiter'.⁷⁹ Not all West German press reports were so critical,

but Lindenberg's brand of celebrity diplomacy stirred up significant controversy.⁸⁰

The Politics of Rock Diplomacy in the Late Cold War

This second and final round of rock diplomacy in 1987 produced two unassuming statements that in fact capture the true importance of rock music in East Germany's international relations in the late Cold War. The first is Erich Honecker's. In the letter that he wrote in response to Lindenberg after the arrest of rock fans on the East German side of the Berlin Wall, the general secretary was compelled to claim that 'The GDR [is] a country that is very friendly to youth, and therefore to rock'.⁸¹ The aggressive accusations in Lindenberg's open letter had put Honecker on the defensive, forcing him to respond as part of a very different power dynamic than their previous exchange in 1983. To claim that the socialist German state was friendly to rock music seems an improbable defence in the hindsight of the post-Cold War world, but it made perfect sense at the time. The relationship between diplomacy and rock was a pragmatic one; it was impossible to win the support of young people without meeting their cultural needs. And the youth were paramount.

Over and over again in the course of German-German relations the 'youth question' jumped to the fore because the ideological contest between the two German states was fundamentally a contest for the future: which political-economic system could provide the best lives for its people and the most hope for the future? Both German regimes worked hard to 'win' young people to their side, seeing young people as both the most vulnerable to propaganda and most essential to convince.⁸² The duelling East-West celebrations of Berlin's

750th anniversary mirrored previous political manoeuvring over youth festivals, especially the large World Festival of Youth and Students, an international socialist gathering which had been held in East Berlin in 1951 and 1973. In the case of the first Festival, with Erich Honecker in charge as head of the FDJ, when the East Germans planned a grand historical pageant, the West Germans (with US backing) brought in four mobile movie theatres. When the East Germans scheduled excursions and lectures, the West Germans countered with exhibits on the Marshall Plan and televisions. Neither side spared any expense, and the cultural events were planned at the highest levels.⁸³

By 1987, the GDR was once again using its dwindling hard currency reserves to invite internationally famous rock stars to play concerts in East Berlin. There was a growing realisation among the leaders of the FDJ, if not yet among the Politburo members, that the GDR was losing, or indeed had already lost, the East German youth, and these were efforts to reverse the loss.⁸⁴ But the FDJ still refused to invite Lindenberg to play because there was a political danger to his music that differentiated him from folk musicians, singer-songwriters and even working-class rock idols like Bruce Springsteen, who played a concert in East Berlin in 1988. As Egon Krenz observed in 1987 when the FDJ was considering partial political rehabilitation of the musician, Lindenberg's fan base was younger and 'through his music and his habitus [they are] excited to uncontrollable political and hooligan [*Rowdyhaft*] behaviours', unlike Bob Dylan

79 Roland Kirbach, 'Ein Sammler und Ausbeuter', *Die Zeit*, 20 May 1988.

80 For a less critical interpretation see Jakobs, 'Honey trifft Udo bei Friedrich'.

81 Von E. Honecker [Letter from Erich Honecker to Udo Lindenberg], *Die Zeit*, 3 July 1987.

82 The American administration shared this assessment as early as 1950. Ostermann, *Between Containment and Rollback*, 176.

83 Despite its economic struggles, the GDR spent 160 million East German marks on the festival, equivalent to US\$48 million at contemporary exchange rates. Ostermann, 177.

84 Zentralrat der FDJ, 'Zu einigen Fragen der Entwicklung der DDR-Rockmusik' (July 1984), DY 30/IV2/2.037/12, SAPMO-BArch.

and Peter Maffay's fans during their recent concerts in the GDR.⁸⁵ In the context of the Cold War, rock music was still particularly politically sensitive, even in the 1980s.

This brings us to the second statement. After meeting Honecker and pressing his guitar onto the general secretary, Lindenberg, speaking in front of the press, asked Honecker to meet with him to speak seriously about 'the contribution that rock music can make to understanding'. Again, from today's vantagepoint this statement could be seen as rather empty of meaning, or as self-serving and publicity-seeking. At the time, it was anything but. Rock music had been the subject of decades of political discourse wherein it was used as a tool by competing actors towards opposing ends: it was a tightly controlled means of expression in socialist countries as when Honecker cracked down on amateur rock bands in 1965; it was an essential element of duelling youth festivals, as each Germany tried to woo young people to its ideology and world view; and it was the voice of the political Left in liberal democracies, as youth demonstrated against the Vietnam War and West Germans developed a taste for music in their own language. Within the Cold War ideological contest, many aspects of rock had become signifiers for the particular brand of freedom espoused by the liberal democracies, including the edgy habitus (as Egon Krenz noted), the loud, critical lyrics, the elaborate, expensive stage shows and the nonchalant, easy confidence that rock stars like Lindenberg so thoroughly embodied. Moreover, these political signifiers remained intact through the 1980s, a decade when music commentators and scholars worried that the new rock music being produced had lost its critical edge.⁸⁶ With this in mind, it is not surprising that the president of the West German Bundestag chose to reference the arrested East German rock fans in opening the 1987 memorial session for the national uprising that occurred in the GDR on 17 June 1953: 'The uprising was

put down. But the desire for freedom remained alive. The recent events in East Berlin have once again shown the world how alive it is'.⁸⁷

As we have seen, despite these associations with freedom and rebellion in Western liberal democracies, rock was also a tool of soft power diplomacy that the East German regime could wield. These associations increased the risk, but the importance of youth to the GDR's ideological project ensured that rock remained in their diplomatic toolbox. Lindenberg was in many ways the perfect representative of German rock for East German political ends. He was the godfather of German-language rock music in the West, he was dedicated to anti-nuclear activism and left-wing (if not communist) politics, and he was cool enough that some of it might just rub off on the 75-year-old dictator, if he could handle the rock star. In the end, though, Honecker's foray into rock diplomacy fell flat. His state visit to Bonn proved to be the highlight of his diplomatic achievements as the Soviet Union continued to pursue a closer relationship with the Federal Republic, while at home, a flurry of concerts by Western rock stars failed to win back young East Germans to the socialist cause.

85 'Note from Egon Krenz to Erich Honecker' (12 October 1987), DY 30/2525, SAPMO-BArch. Rowdytum, or hooliganism, was a crime in the GDR that could be punished with several months in prison.

86 Jason Toynbee, 'The Decline (and Perhaps the Fall) of Rock, Pop and Soul', in *Popular Music Matters* (London: Routledge, 2014), 209–23.

87 Quoted in Michael Rauhut, 'Rock und Politik in der DDR der achtziger Jahre. Ein ereignisgeschichtliches Resumee', *Jahrbuch für Zeitgeschichtliche Jugendforschung* 95 (1994), 76–97.



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Safeguarding Détente: U.S. High Performance Computer Exports to the Soviet Union

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How dangerous could a single U.S. high performance computer in Soviet hands be? In the 1970s, this became a crucial and highly controversial question of U.S. national security export control policy. In the détente years, U.S. companies sold some of the most powerful civilian high performance computers (HPCs) in the world to the Soviet Union. These computers played an outsized role in the U.S.-Soviet relations of the 1970s. There was hardly a summit, or even a plain working meeting between U.S. and Soviet diplomats, which did not touch on HPCs. Indeed, they were a crucial strand in the story of the rise and fall of détente that historical research has so far largely overlooked.¹

U.S. presidential administrations from Richard Nixon-Henry Kissinger to Jimmy Carter saw HPCs as highly attractive tools to shape their détente policies. Indeed, they were perfect objects of techno-diplomacy. The Soviets urgently wanted HPCs in order to participate in the unfolding global revolution of computerization. Having entered this field rather late, the Soviet Union had, since the late 1960s, intensified its efforts to catch up with the West. The Soviets hoped that computers would assist in the modernization and rationalization of economic planning and industrial production.² The fact that computers had been developed in the West first and foremost as a military technology made the dangers of falling behind even clearer.³ This

Soviet need represented a marvelous opportunity for U.S. diplomacy. In the 1970s, the United States was still the hegemon in the field of large computer systems.⁴ This position made computers an ideal bargaining chip for a carrot-and-stick strategy of linkage.⁵ The sale of computers to the Soviet Union could also yield potentially large economic benefits to U.S. companies in the grave economic crisis of the 1970s. The U.S. trade deficit was ballooning, and the worried U.S. public increasingly interpreted it as an expression of U.S. decline.⁶ Selling technology to the Soviets appeared to be a possible remedy for these negative trends. The Western Europeans, also hit by economic crisis, saw it similarly.⁷ Even though their HPCs were less advanced than their U.S. counterparts (and the Soviets therefore preferred to buy from the United States), a vigorous intra-West competition for the emerging Soviet market put pressure on U.S. companies.

The computer diplomacy of détente unfolded between the U.S. technological “haves” and the Soviet “have-nots.” The Soviet Union and its satellites lagged far behind in the use of computers and in the technological state of the art. The “Ryad” computer, the most prominent computer development project in the Eastern bloc, simply reverse engineered the IBM 360 without ever catching up.⁸ In general, Soviet computers were technologically “at least a generation behind” those of the United States.⁹ The Central

1 After more than fifteen years the most important paper is still Frank Cain, “Computers and the Cold War: United States Restrictions on the Export of Computers to the Soviet Union and Communist China,” *Journal of Contemporary History* 40, no. 1 (2005): 131–147. See also: Frank Cain, *Economic Statecraft during the Cold War: European Responses to the US Trade Embargo* (London, 2007). Cain’s work, however, covers only the late 1960s and early 1970s and does not recognize safeguards as the major political and regulatory innovation they were.

2 For an introduction to Soviet détente policy see Vladislav Zubok, “The Soviet Union and Détente of the 1970s,” *Cold War History* 8, no. 4 (2008): 427–447.

3 On Soviet computer technology in the 1970s see Seymour E. Goodman, “Soviet Computing and Technology Transfer: An Overview,” *World Politics* 31, no. 4 (1979): 539–570; Goodman, “Computing and the Development of the Soviet Economy,” in *Soviet Economy in a Time of Change: A Compendium of Papers submitted to the Joint Economic Committee, Congress of the United States*, vol. I (Washington, D.C., 1979): 524–553; James W. Cortada, *The Digital Flood: The Diffusion of Information Technology across the U.S., Europe, and Asia* (New York, 2012), 238–276; Felix Herrmann, “Zwischen Planwirtschaft und IBM: Die sowjetische Computerindustrie im Kalten Krieg,” *Zeithistorische Forschungen* 9 (2012): 212–230; and, Daniel L. Burghart, *Red Microchip: Technology Transfer, Export Control, and Economic Restructuring in the Soviet Union* (Aldershot, 1992), 55–73.

4 For an overview of the U.S. and international computer industry see Kenneth Flamm, *Creating the Computer: Government, Industry, and High Technology* (Washington, D.C., 1988). On the development of the U.S. mainframe computer industry, see Martin Campbell-Kelly and Daniel D. Garcia Swartz, *From Mainframes to Smartphones: A History of the International Computer Industry* (Cambridge, MA, 2015), 11–27.

5 David A. Baldwin, *Economic Statecraft* (Princeton, NJ, 1985).

6 Daniel J. Sargent, *A Superpower Transformed: The Remaking of American Foreign Policy in the 1970s* (New York, 2015), 100–130.

7 For the UK see Mario Daniels, “Dangerous Calculations: The Origins of the U.S. High Performance Computer Export Safeguards Regime (1968–1974),” in *Knowledge Flows in a Global Age: A Transnational Approach*, ed. John Krige (Chicago, IL, forthcoming).

8 “Soviet RYAD Computer Program,” August 1973, CIA Records Search Tool (hereafter CREST), CIA-RDP79T01098A000100150001-9; N.C. Davis and Seymour E. Goodman, “The Soviet Bloc’s Unified System of Computers,” *ACM Computing Surveys* 10, no. 2 (1978): 93–122.

9 “Intelligence Memorandum: Production of Computers in the USSR,” July 1971, CREST, CIA-RDP85T00875R001700010088-3, p. 3.

Intelligence Agency (CIA) estimated that the Soviet Union produced in 1970 only 800 computers while U.S. companies built 16,000.¹⁰ And while in the United States around 63,000 computers were in use, there were only an estimated 5000–6000 units in the Soviet Union.¹¹

Despite its digital weakness, the Soviet Union was still a nuclear power with the largest army in the world. It was obvious that trading HPCs entailed considerable risks. Even if HPCs were sold for civilian projects, they were a dual use technology with a host of military applications – not least for the development, testing, and targeting of nuclear weapons but also for cryptography and codebreaking. From the very beginning, therefore, their sale to the Cold War enemy was controversial. The entire Western deterrence strategy since 1945 had been about offsetting the quantitative military advantages of the Eastern Bloc by the qualitative superiority of Free World technology. U.S. critics of computer sales argued that sharing HPC technology was tantamount to selling the Soviets weapons to destroy the United States. Moreover, HPCs had acquired enormous political prestige as they appeared to demonstrate the prowess of competing political and socioeconomic systems. Computers were, next to nuclear power and weapons, the Cold War technology *par excellence*.¹²

The key question was whether it was possible to reap the benefits of exporting HPCs without giving the enemy a powerful technology that could tilt the strategic and symbolic balance in the Soviets' favor.

The U.S. government balanced the benefits and risks of HPC sales – and of détente economics in general – through export controls.¹³ Export controls are a rarely analyzed and often insufficiently understood field of international (technological and economic) relations.¹⁴ Usually, scholars discuss export controls, if at all, as a mere afterthought of grand détente strategy.¹⁵ But the powerful, if rarely visible, export control bureaucracy shaped what détente meant by translating its concepts into concrete political and economic action. By dint of license decisions for technology, not least for HPCs, it defined the scale and scope of détente. Export controls demarcated the imaginary border where trust between the superpowers ended and enmity still reigned.

HPC export controls are especially remarkable because the U.S. government developed, in the context of détente, a special, unusually elaborate international regime to control large computer systems, emphasizing the enormous strategic and symbolic importance of this technology. The main feature of this HPC control

10 "Intelligence Memorandum: Production of Computers in the USSR," CREST, p. 1–2

11 "Foreign Computer Capabilities," September 25, 1969, CREST, 0005577292, p. 1; Ivan Berenyi, "Computers in Eastern Europe," *Scientific American* (October 1970), 102–109, quoted at 102.

12 Gabrielle Hecht and Paul N. Edwards, "The Technopolitics of Cold War: Toward a Transregional Perspective," in *Essays on Twentieth-Century History*, ed. Michael Adas (Philadelphia, PA, 2010), 271–314; Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, MA, 1997).

13 There is some literature on East-West trade and technological exchanges crossing the Iron Curtain in the computer field. These texts usually touch only briefly on export controls. See: Rüdiger Bergien, "Programmieren für den Klassenfeind: Die Stasi, Siemens und der Transfer von EDV-Wissen im Kalten Krieg," *Vierteljahreshfte für Zeitgeschichte* 67, no. 1 (2019): 1–30; Pierre Bouillon, "Paradox in Computer Science: French and Romanian Cooperation during the Cold War," *Icon* 20, no. 2 (2014): 115–124; Miroslaw Sikora, "Cooperating with Moscow, Stealing in California: Poland's Legal and Illicit Acquisition of Microelectronics Knowhow from 1960 to 1990," in *Histories of Computing in Eastern Europe*, eds. Christopher Leslie and Martin Schmitt (Cham, 2019), 165–195. Christopher Leslie's chapter, "From CoCom to Dot-Com: Technological Determinism in Computing Blockades, 1949–1994," in *Histories of Computing in Eastern Europe*, eds. Leslie and Schmitt, 196–225, is lacking exactitude and often misleading when it refers to export control policy and practice.

14 Mario Daniels and John Krige, *Knowledge Regulation and National Security in Postwar America* (Chicago, IL, 2022); Michael Mastanduno, *Economic Containment: CoCom and the Politics of East-West Trade* (Ithaca, NY, 1992). Jeffrey W. Golan offers a good overview of export controls in the 1970s in Jeffrey W. Golan, "U.S. Technology Transfers to the Soviet Union and the Protection of National Security," *Law and Policy in International Relations* 11, no. 3 (1979): 1037–1107.

15 It is striking that the mainstream of détente scholarship ignores export controls. None of the following studies discusses them: Raymond L. Garthoff, *Détente and Confrontation: American-Soviet Relations from Nixon to Reagan* (Washington, D.C., 1985); Sargent, Superpower; Barbara Zanchetta, *The Transformation of American International Power in the 1970s* (Cambridge, 2014); Jussi M. Hanhimäki, "Conservative Goals, Revolutionary Outcomes: The Paradox of Détente," *Cold War History* 8, no. 4 (2008): 503–512; Noam Kochavi, "Researching Détente: New Opportunities, Contested Legacy," *Cold War History* 8, no. 4 (2008): 419–425; Eckart Conze, "Konfrontation und Détente: Überlegungen zur historischen Analyse des Ost-West-Konfliktes," *Vierteljahreshfte für Zeitgeschichte* 46 (1998): 269–282; Richard N. Cooper, "Economic Aspects of the Cold War, 1962–1975," in *The Cambridge History of the Cold War*, vol. II, eds. Melvyn P. Leffler and Odd Arne Westad (Cambridge, 2010): 44–64; Odd Arne Westad, *The Cold War: A World History* (London, 2017). Even the perceptive Rüdiger Graf, "Détente Science? Transformation of Knowledge and Expertise in the 1970s," *Centaurus* 59 (2017): 10–25, offers no word on export controls.

regime was so-called “safeguards,” that made it possible to control HPCs *after* their export – *on Soviet soil*. These safeguards combined technical verification measures with contractual assurances about the civilian use of the computers. Their most important component was extensive inspection rights for Western companies and the U.S. government inside the Soviet Union. During most of the Cold War, the Soviets stiffly opposed inspectors in their own country, most notably in regard to the nuclear safeguard regime of the International Atomic Energy Agency. Only in 1986, during the reform era of Soviet General Secretary Mikhail Gorbachev, did the Soviet Union accept the presence of foreign nuclear inspectors. In the field of HPCs, however, safeguards had already established the extraterritorial reach of the U.S. government’s power deep into Soviet state agencies, factories, and research institutions in 1971. The Soviets accepted safeguards because they were “have-nots” and wanted to get coveted technology from the United States. But safeguards were also a way for the superpowers to establish a modicum of trust, based in rules, procedures, and verification mechanisms, that was needed to make *détente* a reality.

This article offers the first historical analysis of the impact of the HPC safeguards regime on U.S. *détente* policy and its effects on the (geo)political economy of technology transfers in East-West relations.¹⁶ It examines how safeguards were implemented; how companies used them to foster economic ties across the Iron Curtain; and how they facilitated the sharing of one of the West’s most cutting-edge technologies with the ideological enemy in the East. I analyze U.S. export control policy and practice as it pertained to the Soviet Union, the defining model case of the safeguard regime. This article zeroes in on five HPC export cases: the computers for the Serpukhov proton synchrotron, the Kama truck

factory, the booking systems of the Soviet tourist agency Intourist and the airline Aeroflot, and the UN’s global meteorological network. Posing the biggest technological and political challenges, these computers shaped and defined U.S. safeguard policies. There were more sales of large computer systems, but they were all smaller than the HPCs discussed here, and the U.S. government assessed all other cases against the backdrop of these five ‘flagship’ cases.

Even though I place this analysis in a transnational framework, there are several aspects I can only touch upon, not least due to a distinct lack of scholarship. The Soviet side of the story is mainly told from a U.S. perspective. I offer only a rough sketch of the commercial competition and the considerable conflicts of the United States with its allies, especially in the Coordinating Committee for Multilateral Export Controls (CoCom), the West’s multilateral export control institution. The Soviet and the Free World dimensions of HPC sales demand and deserve separate papers. The same is true for U.S. computer diplomacy toward Soviet allies and especially toward China. It unfolded at the same time and had some overlap. But U.S. export controls, as well as *détente* policy, differentiated the countries from the Soviet Union and applied different rules to each country, although the safeguards that the United States applied to other countries were placed and discussed within the framework developed for the Soviet Union.¹⁷

This article also traces the intense controversies these technology sales caused within the United States. It will especially shed light on the criticism of HPC safeguards from members of the national security community. As *détente* drew more and more opposition, U.S. export control policy came under close scrutiny. One strand of the attacks against HPC safeguards was a

16 On the early history of safeguards see Daniels, “Dangerous Calculations.” The only other scholarly work I know of that discusses safeguards in some detail is Cain, *Computers*, 144–146, but without mentioning the fact that they were a major political and regulatory innovation. Seymour E. Goodman, “U.S. Computer Export Control Policies: Value Conflicts and Policy Choices,” *Communications of the ACM* 25, no.9 (1982): 613–624, does not mention safeguards.

17 Indeed, the export control regulations followed a fine-grained differentiation between the Soviet Union, individual communist countries, and China. See Harold J. Berman, and John R. Garson, “United States Export Controls – Past, Present, and Future,” *Columbia Law Review* 67, no. 5 (1967): 791–890, especially 818–823. U.S. export control policy toward China was from the 1950s to the late 1970 shaped by the so-called “China-differential” that called for special restrictions. See: Mastanduno, *Economic Containment*, 98–100; Hugo Meijer, *Trading with the Enemy: The Making of US Export Control Policy toward the People’s Republic of China* (Oxford, 2016), 33–54. On the shifts of U.S.-Chinese trade and export control policy in the 1970s see: Cain, *Economic Statecraft*, 126–127, 134–136, 151–153, 180–183.

concern that the Soviets might “divert” computing power (down to computing runs as small as 100 milliseconds) to military purposes. But I will also argue that these controversies were shaped by fears that the sale of tangible technological objects would lead to the loss of intangible *knowledge*, know-how, and competencies to the enemy. This argument was put forward by the “Bucy Report,” a highly influential export control reform paper commissioned by the Department of Defense and published in February 1976, right between U.S.-Soviet negotiations over two HPC license cases.¹⁸ Scientific-technological knowledge became the central category for how U.S. policymakers came to understand and frame the benefits and dangers of détente. Indeed, by the

late 1970s “technology loss” had grown into a major concern of national security policy – not least due to a growing awareness that the Soviets engaged in a systematic campaign of collection of technological-scientific knowledge.¹⁹ By the time that the U.S. presidential administration of Ronald Reagan took office, fears of knowledge loss had reached a fever pitch. They were fueled by a wave of revelations of large-scale Soviet economic espionage in the West.²⁰ Before technology discourse reached these heights, however, criticism of sharing computer knowledge with the Soviets contributed to putting an end to all HPC sales to the Soviet Union and to the death of détente in the late 1970s.

The HPC Export Control Safeguards Regime and its Origins

The sale of HPCs to the Soviet Union marked a major reversal of export control policy.²¹ Until 1971 computer technology was subject to a strict embargo. But at the dawn of détente, the United States and its allies in the Western export control organization CoCom began to reconsider their policy. They perceived trade as an especially effective way to relax Cold War tensions. For the Western computer industry, Eastern Europe held the promise of a potentially enormous new market. In the late 1960s, Western computer companies entered negotiations with the Soviet Union over the sale of large computers for the first time – despite the seemingly still insurmountable export control hurdles. The Soviet Union and the largest British computer company, “International Computers Ltd.” (ICL), talked about the sale of two HPCs of the model 1906-A.²² The computers were meant to be used

at the Institute of High Energy Physics at Serpukhov, which since 1967 had been the site of the world’s largest proton synchrotron.²³ At the same time, the Soviets showed an even greater interest in acquiring computers from one of the leading HPC producers in the world, the U.S. Control Data Corporation (CDC). Their flagship model, the CDC 6600, was about five times faster than the ICL 1906-A and up to forty-six times faster than the biggest Soviet-produced computer, the BESM-6.²⁴

In a sure sign that the political climate was changing, the U.S. export control bureaucracy seriously discussed the possibility of licensing the sale of the CDC 6600. In this context, the United States and the United Kingdom considered – for the first time – special HPC safeguards to make sure that the Serpukhov computer

18 Office of the Director of Defense Research and Engineering, *An Analysis of Export Control of U.S. Technology – A DoD Perspective: A Report of the Defense Science Board Task Force on Export of U.S. Technology* (Washington, D.C., 1976) (hereafter “Bucy Report”), last accessed May 12, 2021, https://archive.org/details/DTIC_ADA022029/page/n43/mode/2up.

19 Gus Weiss, “Duping the Soviets: The Farewell Dossier,” *Studies in Intelligence* 39, no. 5 (1996): 121–126.

20 “The Technology Acquisition Efforts of the Soviet Intelligence Services,” June 1982, CREST, 0000261337; U.S. Government Printing Office, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations: Hearings before the Senate Permanent Subcommittee on Investigations of the Committee on Governmental Affairs*, 97th Congress, 2nd Session (Washington, D.C., 1982).

21 This short history of NSDM 247 summarizes key findings of Daniels, “Dangerous Calculations.”

22 Anthony Astrachan, “U.S. Veto Stops Sale of Computers to Soviet Union,” *Washington Post*, May 24, 1971, A10; “ICL Computers to the USSR,” February 22, 1971, CREST, 0000969851, p.1.

23 “Pooling Brains to Study the Atom,” *Business Week*, August 22, 1970.

24 For the comparison of computing power see “ICL Computers to the USSR,” CREST, Attachment A.

would be used only for scientific research and not “diverted” to nuclear test calculations. In November 1969, the Atomic Energy Commission submitted a report to the President’s Office of Science and Technology that included the first catalogue of safeguards.²⁵ The U.S. export control community was, however, far removed from a consensus on their feasibility, and in summer 1970 the export license for the CDC 6600 was officially denied.²⁶ And in November of the same year, the United States also vetoed the sale of the British ICL 1906-A in CoCom.²⁷

The U.S. veto triggered British-U.S. tensions, prompting the British Prime Minister, Edward Heath, to intervene on behalf of the UK’s “national champion” ICL.²⁸ During a meeting, he convinced Nixon and Kissinger to reopen the case and to reassess possible safeguards for the ICL computer. Kissinger commissioned yet another study of the UK’s computer case.²⁹ The review process exposed a deep rift within the U.S. government, pitting two groups of departments and agencies against each other.³⁰ The State Department and some allies favored a safeguarded sale, whereas the Department of Defense and other national security institutions were adamant detractors of HPC exports. When the conflicting risk assessments reached an impasse, President Nixon had to make the final decision. In May 1971, he agreed that the Serpukhov license should be granted “on the conditions that ... the U.K. agree to effective implementation of the proposed safeguards.”³¹

The Serpukhov case became the template for a new HPC export control policy, codified in the secret National Security Decision Memorandum (NSDM) 247, signed by Kissinger on March 14, 1974. At first sight, the memorandum was about the liberalization of computer exports. It raised the threshold beyond which an export license application faced special scrutiny and likely denial from a Processing Data Rate (PDR) of eight million to thirty-two million bits a second (mbs). At the same time, NSDM 247 tightened and expanded the reach of U.S. export controls by codifying a new regime for HPC sales.³² The memorandum stipulated that large computers – certainly those above the new PDR threshold but also certain smaller computers – could only be exported if the buyer on the other side of the Iron Curtain agreed in the sales contract to “post-sale safeguards.”³³

These safeguards encompassed an array of monitoring and verification measures, which became standard operating procedures even though not all of them had been listed in NSDM 247. Their application varied in practice in regard to the receiving countries and in accordance with the technological sophistication and computational power of the HPC at hand. Thus, not all safeguards were applied to every single HPC, and the individual measures varied from case to case in frequency and duration. The most important safeguards used in the 1970s were:

25 “ICL Computers to the USSR,” CREST, Attachment C: “Proposed Safeguards for High Performance Computers.”

26 “ICL Computers to the USSR,” CREST, Attachment D: “Recent Soviet Efforts to Obtain Large Western Computers.”

27 “ICL Computers to the USSR,” CREST, p. 3.

28 On ICL’s status as “national champion,” see: Alvin Shuster, “British Will Create a Computer Giant to Assist Exports,” *New York Times*, March 22, 1968, 69, 79; James W. Cortada, “Public Policies and the Development of National Computer Industries in Britain, France, and the Soviet Union, 1940–1980,” *Journal of Contemporary History* 44, no. 3 (2009): 493–512, especially 502.

29 “Memorandum from the President’s Assistant for National Security Affairs (Kissinger) to the Chairman of the National Security Council Under Secretaries Committee (Irwin),” January 25, 1971, *Foreign Relations of the United States* (hereafter *FRUS*), 1969–1976, vol. IV, Foreign Assistance, International Development, Trade Policies, 1969–1972, ed. Bruce F. Duncombe (Washington, D.C., 2001): doc. 369.

30 Aspects of this debate are also presented in Cain, *Computers*, 144–146, but without discussion of the fact that safeguards were new and a major political and regulatory innovation.

31 “Memorandum from the Staff Director of the National Security Council Under Secretaries Committee (Hartman) to the Members of the Under Secretaries Committee,” May 13, 1971, *FRUS*, 1969–1976, vol. IV, doc. 374.

32 Writing from a CIA perspective, Weiss, “Duping the Soviets,” 123, 126, misses NSDM 247’s tension between the liberalization and strengthening of computer export controls. He writes incorrectly that the Memorandum effectively stopped supercomputer exports to the Soviet Union.

33 “National Security Decision Memorandum 247,” March 14, 1974, p. 1 *Federation of American Scientists Intelligence Resource Program*, last accessed May 8, 2021, https://fas.org/irp/off-docs/nsdm-nixon/nsdm_247.pdf.

1. On-site inspections: The Iron Curtain buyers of HPCs had to agree, as part of the sales contract, to permit free access for Western specialists to the HPC on the installation site. In practice, the computer companies provided and paid for the monitoring personnel who submitted reports on a regular basis to the Western government where the company was headquartered. For the largest computers, monthly visits and reports were mandatory; for smaller systems quarterly visits or even just the assurance of the right of access sufficed.³⁴ Inspection rights had to be guaranteed for a clearly stated number of years up to a decade.
2. So-called “core data dumps”: All computations of the HPC had to be recorded down to the split-second, and the records had to be regularly handed over to the local U.S. embassy for analysis by the U.S. intelligence community.
3. Scaling-down: If the export controllers came to the conclusion that the computer size did not match the stated end use, they demanded to scale down the HPC to reduce its computing power. This could result in sometimes considerable technical modifications which were quite costly for the selling company.
4. Control over spare parts: HPCs had a number of parts that frequently broke and needed to be replaced. Without this kind of maintenance an HPC would over time break down. Hence, control over spare parts provided leverage. The sales contracts limited the amount of spare parts allowed to be stored on site (usually measured in the needed stock per month) and the number of years (again up to a decade) this measure would be in place.
5. Permanent residence of Western monitoring personnel: In exceptional cases large HPCs were permanently guarded by company employees on-site for years on end.³⁵

All of these measures were designed to forestall what export controllers call “diversion,” or the clandestine and illegal use of civilian computers for military purposes.

NSDM 247 provided the framework for HPC safeguards and sales to the Eastern bloc throughout the 1970s. Even with this framework in place, however, the development of HPC export control policy followed a case-by-case approach. One case informed, by comparison, the decision making in the next one, thus incrementally building a genealogy of intimately linked safeguard cases. The U.S. export control community, however, carefully avoided establishing legal precedent that could pre-empt its future decisions. For HPC producers this meant considerable economic insecurity. Every single licensing case involved complex negotiations between companies and the U.S. national security community. The technological complexity of HPCs added yet another layer to these intricate bureaucratic processes. Often the resulting decisions were compromises: in part denial, in part approval.

The Soviet Union accepted this safeguard regime, which permitted the U.S. government and U.S. firms to reach deep into Soviet territory, as early as 1971 “without demur.”³⁶ Against the backdrop of the Soviets’ long-standing resistance to the application of the International Atomic Energy Agency safeguards on their own territory, this was truly astonishing.

34 See the graphic “Controls on Computer System Exports to the Communist Countries,” in U.S. Government Printing Office, *Computer Exports to the Soviet Union, Hearing before the House Subcommittee on International Economic Policy and Trade of the Committee on International Relations* (hereafter *Hearing Computer Exports*), June 25, 1977, 95th Congress, 1st Session (Washington, D.C., 1978), 40.

35 This list cannot be extracted from one single document but summarizes findings from all HPC export control cases I analyzed. See for example Enclosure, “NSC Under Secretaries Committee Report,” March 16, 1971, in “Memorandum From the Acting Chairman of the National Security Council Under Secretaries Committee (Samuels) to President Nixon,” March 18, 1971, *FRUS*, 1969–1976, vol. VI, doc. 372; Telegram, U.S. Mission to OECD, Paris, to Secretary of State, May 12, 1976, 1976STATE115440, Electronic Telegrams, Central Foreign Policy Files 7/1/1973–12/31/1979 (hereafter *CFPF*), Record Group 59: General Records of the Department of State (hereafter *RG 59*), *U.S. National Archives Access to Archival Databases* (hereafter *AAD*), last accessed May 11, 2021, <https://aad.archives.gov/aad/createpdf?rid=263081&dt=2082&dl=1345>.

36 Nicholas Wade, “Computer Sales to U.S.S.R.: Critics Look for Quid Pro Quos,” *Science* 183, no. 4124 (1974): 499–501, quoted at 500.

Encouraged by the Serpukhov decision, several U.S. companies were eagerly pursuing the sale of HPCs to the Soviet Union even before NSDM 247 was written. In lockstep with the improvement in U.S.-Soviet relations, the U.S. computer industry's "sales efforts ... went into high gear." In May 1972, Nixon and Soviet Premier Leonid Brezhnev had signed the Anti-Ballistic-Missile Treaty (ABM) and the first Strategic Arms Limitation Treaty (SALT). Soon, the U.S. Embassy in Moscow could state that "[a]ll indications point to the fact that [the] U.S. computer industry has reached [the] collective decision that [the] USSR market for computer systems justifies major effort." With Soviet accreditation, the U.S. computing giants IBM and Honeywell opened offices in Moscow.³⁷

By mid-1974, with NSDM247 now in place, negotiations over the sale of four U.S. HPCs were underway, and all of them had, as the U.S. embassy stated, the "potential for becoming [a] major issue in our relations with [the] USSR." Indeed, the "computer area has become one of [the] focal points in [the] U.S.-Soviet relationship, and [the] pending [export] licensing decisions ... seem likely to have" a high "symbolic importance," as they were likely to be "understood by both sides as signals of U.S. trade policy." "Accordingly, decisions on these cases should be made in knowledge that they will be examined at [the] highest levels of Soviet leadership and that they may well have an impact on our overall relationship."³⁸ In other words, HPCs had become a central issue of the political process of détente. Three cases proved especially important. They were all key to high-priority Soviet projects, as well as test cases for what

cooperation between the Soviet Union and the United States would mean in practice, beyond abstract statements of general goodwill.

The first two cases concerned the Soviet travel booking system Intourist and the Kama River truck plant. In the spring of 1973, IBM had begun to talk to Intourist, the Soviet state monopoly in charge of foreign travel from and to the Soviet Union. Intourist wished to acquire two IBM model 370/155 HPCs (soon Intourist switched to the two units of the more advanced model IBM 370/158) for its planned computerized travel booking system that was "sorely needed ... for the 1980 Olympic Games."³⁹

IBM was also involved with the second high-profile case. In May 1974, it inked a contract with the Soviets for the export of two duplexed 370/155 computers (soon instead an IBM 370/158) to the Kama River truck plant.⁴⁰ Kama was the largest construction project of the Ninth Five-Year Plan (1971–75). It was also part of the fifteen-year modernization plan, adopted in 1965, and the centerpiece of a large-scale Soviet plan for modernizing the country's transportation capabilities. Kama would become the biggest truck factory in the world, with an annual production capacity of 150,000 eight-ton trucks (including engines) and an additional 100,000 diesel engines for civilian use. The construction of the factory relied heavily on the import of a \$1.3 billion worth of Western technology – equipment and manufacturing technology as well as engineering assistance and know-how. In the end, U.S. companies earned \$500 million with this project.⁴¹

37 Telegram, U.S. Embassy Moscow to Secretary of State, June 6, 1974, 1974MOSCOW05894, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=121654&dt=2474&dl=1345>.

38 Telegram, U.S. Embassy Moscow to Secretary of State, September 23, 1974, 1974MOSCOW14325, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=193776&dt=2474&dl=1345>.

39 Telegram, U.S. Mission to the OECD, Paris, to Secretary of State, May 11, 1973, 1973OECDDP12963, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=90973&dt=2472&dl=1345>; Telegram, Secretary of State to U.S. Mission to the OECD, Paris, May 14, 1973, 1973STATE091761, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=90213&dt=2472&dl=1345>; Telegram, U.S. Mission to the OECD, Paris, to Secretary of State, September 13, 1973, 1973OECDDP24183, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=152851&dt=2472&dl=1345>. "Sorely needed ..." quote from: Telegram, Secretary of State to U.S. Embassy Moscow, August 27, 1975, 1975STATE20437, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=47214&dt=2476&dl=1345>.

40 Telegram, U.S. Embassy Moscow to Secretary of State, May 17, 1974, 1974MOSCOW07414, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=94842&dt=2474&dl=1345>.

41 "Truck Production at the Soviet Kama River Plant – Western Technology in Action: A Research Paper," August 1985, CREST, CIA-RDP86T00591R000300400003-5, p.iii; "USSR: Role of Foreign Technology in the Development of the Motor Vehicle Industry. A Research Paper," October 1979, CREST, CIA-RDP85T00176R000900010006-1, p.8.

The third computer export in the making was the sale of a pair of Sperry-Univac 1106 II to the Soviet airline Aeroflot, which wanted to upgrade its reservation system. Like IBM, Sperry signed a scientific-technical cooperation agreement with the Soviet State Committee for Science and Technology in May 1974. With the Aeroflot sale, Sperry hoped not only to land its first HPC deal in the Soviet Union but also to pursue another, larger opportunity: the modernization of the Soviet air traffic control (ATC) system.⁴² While the Soviets eventually decided to award the ATC deal to a Swedish company, the Sperry contract for Aeroflot, along with the IBM contracts for Intourist and the Kama plant, generated extensive export-control negotiations with the U.S. government that shaped U.S. safeguard policy after NSDM 247 had established a framework.⁴³

The three computers for Kama, Aeroflot, and Intourist were large and advanced systems, by Western as well as Soviet standards – indeed, more powerful than any computer previously exported to an Iron Curtain country.⁴⁴ Even the older IBM 370/155, no longer produced by 1974, which Kama and Intourist first had in mind, was a NSDM 247 borderline case. With a PDR of 32.3 million bits per second (mbs), it was just above the 32 mbs threshold. The follow-up model IBM 370/158 was well beyond this limit: it had a PDR of 44 mbs.⁴⁵ That had also been the power of the British Serpukhov computer. By comparison, the largest Soviet computer, the BESM-6, had a PDR of only 13 mbs.⁴⁶

The search for an agreement on the safeguards for the U.S. systems soon ran into problems, but not because the Soviets objected or because there was dissent within the U.S. government. IBM and other U.S. companies had qualms about asking their resident employees “to engage in surveillance.”⁴⁷ The computer industry was also not pleased about the costs of safeguards, which had to be covered by the companies without any support from the U.S. government. The expenditures were considerable. For the safeguards for the Serpukhov computer, which included having engineers on site, ICL spent between £60,000 and £80,000 per year.⁴⁸ During the discussions about the adoption of the U.S. safeguard policy within the multilateral framework of CoCom, the German delegate claimed that the “typical trip to visit a 4 million DM [Deutschmark] system” would cost 3000 DM. “Five years of monthly visits would be 180 thousand DM or about 5 per cent of system value.” The British delegate calculated that quarterly inspections costing £1500 each over ten years would, with inflation, exceed the total profit margin.⁴⁹

The U.S. government would have none of this. It told its CoCom allies that computer safeguards were “not a cost issue but a security issue” and thought the Germans and British exaggerated the costs.⁵⁰ And the U.S. export controllers let IBM know that they were not willing to scale down the reporting requirements to be imposed on the company.⁵¹

42 Telegram, U.S. Embassy Moscow to Secretary of State, May 22, 1974, 1974MOSCOW07735, CFPF, RG 59, AAD, last accessed May 9, 2021, <https://aad.archives.gov/aad/createpdf?rid=93527&dt=2474&dl=1345>.

43 Telegram, Secretary of State to U.S. Embassy Moscow, August 27, 1975, AAD. The case is discussed from a business perspective in the contemporary book, Marshall I. Goldman, *Détente and Dollars: Doing Business with the Soviets* (New York, 1975), 225–244.

44 Telegram, Secretary of State to U.S. Consulate, Jerusalem, March 21, 1975, 1975STATE064852, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=206073&dt=2476&dl=1345>.

45 Telegram, Secretary of State to U.S. Embassy Budapest, June 11, 1974, 1974STATE123683, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=121969&dt=2474&dl=1345>.

46 “ICL Computers to the USSR,” CREST, Attachment A: “Operating Characteristics of Selected Computers.”

47 Telegram, Secretary of State to U.S. Embassy Moscow, December 18, 1974, 1974STATE276839, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=271112&dt=2474&dl=1345>.

48 Telegram, Secretary of State to U.S. Embassy London, April 14, 1975, 1975STATE084630, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=18074&dt=2476&dl=1345>. Here, the sum of £60,000 is mentioned. Cain, *Computers*, 146, quotes a source that states annual costs of £80,000.

49 Telegram, U.S. Mission to OECD, Paris, to Secretary of State, May 2, 1975, 1975OECDP11111, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=235193&dt=2476&dl=1345>.

50 Ibid.

51 Telegram, Secretary of State to U.S. Embassy Moscow, December 18, 1974, AAD.

IBM finally agreed in March 1975 to the licensing conditions after the U.S. government had communicated in December 1974 that it would issue a license for the IBM 370/158 for Kama if sufficiently safeguarded. The U.S. industry, and also the Soviet Union, immediately interpreted the green light for Kama as a start signal for further computer exports. In December 1974, the positive attitude of the U.S. government had already encouraged the Soviets “after several months of relative inaction ... suddenly ... to request proposals on [a] large number of new systems” from the U.S. industry. Everyone involved acted upon the assumption that the parameters established for the Kama case would apply to future deals. This optimistic view of more business on the way was confirmed when the interdepartmental Export Administration Review Board also approved the Aeroflot case under similar safeguards as the Kama computer.⁵² Indeed, it had become the official line of U.S. détente policy toward the Soviet Union that “the sale of large computer systems is beneficial to U.S. companies and represents the kind of cooperative commercial venture to which the Soviets attach importance as evidence of expanding bilateral economic cooperation. At the same time, we have to be certain that our advanced technology is protected and that there are adequate safeguards against diversion to strategic uses.”⁵³ For this policy, the “Kama-Aeroflot formula” set the new precedent and reference point, replacing the Serpukhov case. Indeed the Serpukhov safeguards were revised according to this new formula in U.S.-British negotiations in April and May 1975.⁵⁴

The Kama and Aeroflot safeguard agreements demanded that the computers were to be accompanied by resident engineers. They were

supposed to make sure on site that the computers were not “diverted” to applications other than the agreed end-uses. The residency had a duration of three years. During this period, the agreements stipulated a right of access to the computer facilities at all times. After delivery, a schedule of regular monthly inspections was to commence. These would continue for an indefinite period – a remarkably open-ended provision. Moreover, the exporting company had to submit monthly reports to the U.S. government about the utilization of computer time. It is likely (but not entirely clear) that there were also limits to spare part storage on-site and that “core dumps” for analysis by the US intelligence community were also part of the safeguard package.⁵⁵

Despite being greeted by the Soviets and the U.S. business community as a sign of happy days ahead, the “Kama-Aeroflot formula” quickly proved a problematic basis for a new export control practice, because it seemed not applicable to the third case in question, the computer for Intourist. Every HPC had an individual profile in regard to its technological capabilities and end-uses. It became immediately clear that HPC export control would remain a matter of time-consuming case-by-case assessments of highly complex configurations.

The Intourist computer stood out by its sheer size. Whereas the Soviets had bought a single IBM 370/158 (in lieu of the original duplexed 370/155s) for the Kama plant, Intourist wanted two IBM 370/158s, which had a combined PDR of 88 mbs. The export controllers were also worried about the system’s peripheral memory, which was “several times larger than any system previously approved.” The U.S. government feared that a sophisticated system of this size

52 Telegram, U.S. Embassy Moscow to Secretary of State, December 17, 1974, 1974MOSCOW18360, CFPF, RG 59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=271665&dt=2474&dl=1345>; Telegram, Secretary of State to U.S. Embassy Moscow, March 14, 1975, 1975STATE058230, CFPF, RG 59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=207554&dt=2476&dl=1345>.

53 Telegram, Secretary of State to U.S. Consulate, Jerusalem, March 21, 1975, AAD.

54 Telegram, Secretary of State to U.S. Mission to OECD, Paris, May 14, 1975, 1975STATE112701, CFPF, RG59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=238014&dt=2476&dl=1345>.

55 Telegram, Secretary of State to U.S. Embassy London, April 14, 1975, AAD; Telegram, U.S. Mission to OECD, Paris, to Secretary of State, April 30, 1975, 1975OECDP11087, CFPF, RG 59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=16408&dt=2476&dl=1345>; Telegram, U.S. Mission to OECD, Paris, to Secretary of State, April 30, 1975, 1975OECDP10952, CFPF, RG 59, AAD, last accessed May 10, 2021, <https://aad.archives.gov/aad/createpdf?rid=18994&dt=2476&dl=1345>; Telegram, Secretary of State to U.S. Mission to OECD, Paris, May 14, 1975, AAD; Telegram U.S. Mission to OECD, Paris, to Secretary of State, May 2, 1975, AAD.

would have “significant military/strategic/intelligence application possibilities.”⁵⁶ For these reasons, the Intourist deal called for a more thorough export control review than the Aeroflot and Kama cases.⁵⁷ In September 1975, the Export Administration Review Board decided to deny the license. It concluded that the computer was so large that it “could not be adequately safeguarded against unauthorized use.” The U.S. government, however, assured the Soviets that this decision did not “represent a change in [the] U.S. attitude toward trade in computers and other high technology items and that it in no way should be construed as a change of policy.”⁵⁸

The way out of the Intourist impasse was to scale down the mainframe or to switch to a smaller model.⁵⁹ IBM and their Soviet customer settled on a considerably smaller system: the IBM 370/145 with a PDR of 24.5 mbs, well below the NSDM 247 threshold.⁶⁰ Usually it was not difficult for U.S. companies to receive an export license for computers of this size. But even though, officially, such license cases of “medium range computers” (like the IBM 370/145 and 370/155 or the CDC Cyber 172) were assumed to be an “automatic approval,” they were in practice “subject to review” by the Department of Defense, Energy Research and Development Administration, and “sometimes” the State Department “through informal consultation.”⁶¹ And if a medium sized computer had a large peripheral memory – especially if it was run with the latest IBM disc drive type 3300 – it

was treated like a large computer above the PDR 32 mbs limit, i.e. subject to thorough screening by the Export Administration Review Board and extensive safeguards.⁶² The IBM 370/145 for Intourist came with fourteen 3300 disc drives.⁶³

While the downsizing did not secure automatic approval, it did make the Intourist case compatible with the Kama-Aeroflot formula. Since now all three systems had “similar technical characteristics and similar risks of diversion,” a safeguards agreement with the Soviets was within reach.⁶⁴ The Soviets accepted it in a formal letter to IBM. Again, Western representatives would have “free access” to the computer “at all times,” and U.S. technicians would reside on site for “at least” three years. Reports on the use of computer time were due every month, and IBM would “monitor and control the utilization of spares and return to IBM ... all replaced major assemblies.”⁶⁵ Regular on-site inspections were not explicitly mentioned but were presumably included in the stipulation of access rights. On the basis of this agreement, the U.S. export license was issued in September 1976.⁶⁶

By mid-1976, the computer diplomacy of détente had established a differentiated and functioning system to balance the benefits and risks of HPC sales. The Soviet Union succeeded in three out of three cases to acquire large and sophisticated computer systems; the U.S. companies involved sold multi-million dollar equipment; and the U.S. national security community established a

56 Telegram, Secretary of State to U.S. Embassy Moscow, November 17, 1975, 1975STATE272080, CFPF, RG59, AAD, last accessed May 11, 2021, <https://aad.archives.gov/aad/createpdf?rid=265892&dt=2476&dl=1345>.

57 Telegram, Secretary of State to U.S. Consulate, Jerusalem, March 21, 1975, AAD.

58 Telegram, Secretary of State to U.S. Embassy Moscow, November 17, 1975, AAD.

59 Telegram, Secretary of State to U.S. Embassy Moscow, March 14, 1975, AAD; Telegram, Secretary of State to U.S. Embassy Moscow, November 17, 1975, AAD.

60 Graphic “Controls on Computer System Exports to the Communist Countries,” in *Hearing Computer Exports*, 40.

61 Prepared Statement of Stanley J. Marcuss, Assistant Secretary of Domestic Commerce, Department of Commerce, in *Hearing Computer Exports*, 11.

62 Telegram, Secretary of State to U.S. Embassy Moscow, June 21, 1974, 1974STATE134075, CFPF, RG59, AAD, last accessed May 11, 2021, <https://aad.archives.gov/aad/createpdf?rid=133424&dt=2474&dl=1345>.

63 Telegram, Secretary of State to U.S. Mission to OECD, Paris, May 11, 1976, 1976STATE114778, CFPF, RG59, AAD, last accessed May 11, 2021, <https://aad.archives.gov/aad/createpdf?rid=258996&dt=2082&dl=1345>.

64 Ibid.

65 Telegram. U.S. Mission to OECD, Paris, to Secretary of State, May 12, 1976, AAD.

66 “Commerce Gives IBM Nod to Sell 370/145 to USSR,” *Computerworld* 10, no. 37 (1976): 12. The journal reported that the license included eight 3300 disc drives, which points toward some further downsizing.

farreaching export control system that intruded on Soviet territory with Soviet consent. It seemed that HPC sales were a détente success story. But only shortly after, the safeguard system steered into troubled waters, and vociferous

critics attacked the regime as a grave political and strategic mistake. They claimed that HPC sales – indeed détente as such – were a clear and present danger to U.S. national security.

Safeguarding milliseconds: the Denial of the Cyber 76 to Hydromet

The favorable U.S. HPC trade policy encouraged the Soviet Union to request larger and more powerful computers.⁶⁷ After the successful acquisitions for the Kama truck plant, Aeroflot, and Intourist, the Soviets hoped to buy their largest HPC so far. The CDC 7600, or “Cyber 76,” manufactured by the Control Data Corporation, had a PDR of 723.5 mbs and was thus more than sixteen times more powerful than the Kama factory’s IBM 370/158.⁶⁸

Even though Control Data Corporation, one of the leading U.S. producers of HPCs, must have been aware that it was “clearly out of line under current US licensing policies,” it applied in August 1975 for a license for the export of a Cyber 76 to the Soviet Union.⁶⁹ The system was meant to be used for weather research and forecasting at the Hydrometeorological Center (Hydromet) in Moscow, which participated in the international weather data collection project of the UN’s World Meteorological Organization (WMO). Even though the Cyber 76 was considered an important tool for the improvement of international weather observation (and scientific cooperation in general), the proposed sale raised red flags in the U.S. national security community. It became the center of

controversies over export control policy and was subject to an unusually complex and lengthy risk assessment that took almost two years. In mid-1977, the U.S. government killed the deal. The denial of the export license for the Cyber 76 marked not only the end of a politically charged economic transaction with the Soviet adversary but was also linked to a sea change in U.S. export control policy more broadly.

The Hydromet in Moscow urgently needed Western computing power because it was chosen to be one of three worldwide data processing centers of the WMO’s worldwide weather project – a “WWW” *avant la lettre*. The WWW (or World Weather Watch) was a global system for the collection, sharing, communication, and processing of weather data, consisting of about 150 national and twenty-two regional weather centers.⁷⁰ Their data was to be aggregated in three main centers, located in Washington, D.C., Melbourne, Australia, and in Moscow.⁷¹ Hydromet was decidedly the weak link in this system, as the U.S. National Oceanic and Atmospheric Administration (NOAA) pointed out: “The numerical forecasts of the Soviet Union verify consistently poorer than do those of the United States, primarily because of the lack of a

67 Telegram, Secretary of State to U.S. Embassy Moscow, August 27, 1975, AAD.

68 Graphic “Controls on Computer System Exports to the Communist Countries,” in *Hearing Computer Exports*, 40.

69 Telegram, Secretary of State to U.S. Embassy Moscow, March 28, 1975, STATE071217,CFPF, RG59, AAD, last accessed May 11, 2021, <https://aad.archives.gov/aad/createpdf?rid=201373&dt=2476&dl=1345>; Ella Coon, “‘Hardliners’ and High Technology: Control Data Corp.’s Debates with the U.S. Defense Department over Globalizing Computer Technology in the Communist World,” paper given at the Business History Conference, February 12, 2020, Charlotte, NC, also sheds some light on the CDC-Hydromet case, and links it to the Bucy report – but does not discuss safeguards. For a short version of Coon’s text, leaving out Bucy, see Ella Coon, “Supercomputer,” *PhenomenalWorld*, last accessed May 12, 2021, <https://phenomenalworld.org/analysis/supercomputer>. On CDC and its international HPC sales, see David M. Hart, “From ‘Ward of the State’ to ‘Revolutionary without a Movement’: The Political Development of William C. Morris and Control Data Corporation, 1957–1986,” *Enterprise and Society* 6, no. 2 (2005): 197–223.

70 See, for the history of this project, Paul N. Edwards, “Meteorology as Infrastructural Globalism,” *Osiris* 21, no. 1 (2006): 229–250.

71 *Hearing Computer Exports*, 23–24.

sufficiently large computer. The computational resources of the Hydrometeorological Center are significantly inferior to the three fourth-generation computers used in NOAA. It is NOAA's judgment that U.S.S.R. computer resources equivalent or in excess of a fourth-generation machine are required to support near-term international meteorological programs."⁷²

Hydromet had one BESM-6, which had a processing power of only one-sixteenth of the regional WWW center in Montréal and one-thirtieth of the French national center in Paris. Procuring CDC's Cyber 76 system would have raised Hydromet to the level of Montréal and thus just "minimally into line with some of the regional systems around the world." Compared to U.S. standards, this would have been only a modest improvement. The National Center of Atmospheric Research in Boulder, CO, for example, had a computing power at its disposal that was more than eleven times bigger than a Cyber 76.⁷³

However attractive from a meteorological perspective, exporting a Cyber 76 was risky from a national security point of view. It was "one of the most powerful commercially available computers in the world today."⁷⁴ The U.S. military used it for a range of highly sensitive calculations in the fields of nuclear weapons design, data processing for missile tracking and guidance, cryptography and cryptanalysis, and wargaming.⁷⁵

Rather than simply deny the export control license, however, the U.S. government initiated an unusually elaborate review process. Despite the national security concerns, the U.S. government did not lose sight of its political, economic, and technological interest in the facilitation of exports. With a strict denial policy, the Department of Commerce pointed out, the "United

States would unnecessarily deny itself important trade opportunities." Moreover, the United States competed with its Western allies for shares of a potentially huge emerging market. The European partners had overall lower export control standards as "our national security concerns are not necessarily viewed in the same light or with the same intensity by our foreign competition." In other words, too much control could easily turn into a competitive disadvantage to the United States. It was also clear to the Department of Commerce that the quality of U.S. computers depended on healthy U.S. companies. Their "sales abroad offer an opportunity for continued U.S. leadership" in the computer field.⁷⁶

In order to assess the national security risks of the proposed Cyber 76 sale, the National Bureau of Standards (NBS) was assigned in January 1976 to establish an interagency group. It assembled twenty-six "highly qualified computer experts" from the Departments of Defense, State, and Commerce (which were the main export control agencies) as well as from the CIA, National Aeronautics and Space Administration (NASA), and the newly formed Energy Research and Development Administration (taking over some functions of the now-defunct Atomic Energy Commission). This board's main task was to explore the feasibility of devising safeguards.⁷⁷ Soon, CDC submitted a catalogue of safeguards for the Cyber 76 to this expert group for review.

The measures that CDC proposed were a continuation of safeguard practices established since the Serpukhov computer in 1971. But CDC put greater emphasis on the residency requirement, suggesting that two U.S. full-time employees live in Moscow to permanently monitor the computer. One of them would be an engineer, the other a systems analyst; they would have "sole possession of the software source code and the

72 National Oceanic and Atmospheric Administration, "Statement on U.S.S.R. Computer Requirements in Support of International Meteorological Programs," quoted in *Hearing Computer Exports*, 22.

73 *Hearing Computer Exports*, 24.

74 Testimony Stanley J. Marcuss, in *Hearing Computer Exports*, 7.

75 *Ibid.*, 8.

76 *Ibid.*, 3.

77 *Ibid.*, 8.

routines required to generate a working operating system.”⁷⁸ Moreover, CDC took great pains to modify the operating software code “to make it totally unique” to the Soviet HPC, and the “only copy of this code will be in the hands of the resident Control Data analyst. Any attempt to operate the system with invalid software will halt the system and will be recorded automatically on the system information file.” Finally, the company proposed real-time remote monitoring from a terminal located in the United States and connected to the computer in Moscow through communication lines. As a result, CDC claimed that any Soviet attempt to circumvent its safeguards “would require tremendous expenditures of time, money, physical force, and would, of course, be detectable immediately.”⁷⁹

CDC made its case not only by proposing these extraordinary control measures but also by highlighting the sale’s positive scientific, economic, and political effects. Quoting NOAA, Robert D. Schmidt, CDC’s Executive Vice President, pointed out the “direct benefits to the United States from Soviet acquisition of such a computer” including “higher quality data for the U.S. forecast models” and access to “greatly improved U.S.S.R. satellite data from their two polar orbiting satellites.” His colleague, Hugh P. Donaghue, the Vice President and Assistant to CDC’s CEO, painted a rosy picture of the market opportunities in the Soviet Union waiting for U.S. companies to exploit. He claimed that the Soviets already needed twenty-five large computers per year, adding up to a value of seventy-five to 100 million dollars. “This segment will grow. In the 10 years ahead, we estimate that the value of the Communist-installed computer base, exclusive of minicomputers, will be \$43 billion. This represents an \$8 billion to \$10 billion market opportunity for U.S. companies over this 10-year period. By 1985 the United States

would enjoy sales in excess of \$2 billion per year, a level of 100,000 jobs in 1985.” The sale of the Cyber 76 to Hydromet alone represented nearly 600 jobs for one year at CDC. If the United States did not take advantage of these opportunities, competitors from states like Japan and West Germany would. Since computer sales led to strong technological path dependencies, it was time to move now to secure the future. Apart from scientific and economic considerations, CDC was simply sticking to the friendly political course defined by Nixon and Kissinger’s détente policy since 1972.⁸⁰

The export control commission led by the National Bureau of Standards came to a completely different assessment of the HPC sale. It stressed national security concerns and rejected CDC’s safeguard proposal. The NBS report of June 1976 stated “that there are presently no technically viable or economically feasible safeguards for the computer systems proposed for Hydromet.” The main concern was that, contra CDC’s claims, there were no “assurances that unauthorized use would be detectable, let alone occur.” The report assessed the risks of a diversion of computing time to uses like nuclear weapons design, missile guidance, or cryptanalysis as “a serious threat to our security.” Accordingly, the NSB expert group unanimously recommended an export license denial.⁸¹ CDC fought for its case and it dragged on for another year before the Department of Commerce’s Office of Export Administration finally denied the license on June 23, 1977.⁸²

At its core, the CDC export control case was about the question of how to assess and mitigate the national-security risks of sharing high technology. What risk was acceptable in a balancing test of national security concerns on the one hand and the economic, scientific, and political

78 Testimony of Hugh P. Donaghue, Vice President and Assistant to the Chief Executive Officer, Control Data Corporation, and Letter George K. Bardos, CDC Vice President, Market Development to Rauer H. Meyer, Director of the Office of Export Administration, Bureau of East-West Trade, Department of Commerce, June 17, 1977, in *Hearing Computer Exports*, 25, 39.

79 Testimony of Hugh P. Donaghue, and Letter George K. Bardos, CDC, to Rauer H. Meyer, DoC in *Hearing Computer Exports*, 25–26, 39–40.

80 *Hearing Computer Exports*, 23, 28–30, 37.

81 Testimony Stanley J. Marcuss, in *Hearing Computer Exports*, 8–9.

82 U.S. Government Printing Office, *Transfer of Technology to the Soviet Union and Eastern Europe: Hearing before the Permanent Senate Subcommittee on Investigations of the Committee on Governmental Affairs, Part 2* (hereafter *Transfer of Technology to the Soviet Union*), May 25, 1977, 95th Congress, 1st Session (Washington, D.C., 1977), 26 (footnote).

benefits of a détente-inspired transaction with the Soviet adversary on the other hand? The clash between CDC and the U.S. government reflected differing attitudes toward a “technological fix” to the potentially dangerous side effects of technology sales.

The fundamental disagreement came down to the question of how dangerous the clandestine use of small parts of a computer’s calculations for nefarious purposes could be. The risk assessment regarding diversion of computing time had been part of the safeguard development since 1971. Discussing the Serpukhov case, an expert panel, convened by the President’s Office of Science and Technology, came to the conclusion “that the diversion of less than of the order of 25 percent of [the HPC’s] capacity for two or more years would not be worth the effort required of the Soviets to effect clandestine diversion. The panel believes that this much diversion of the computers’ time from legitimate work needs would likely be sensed by foreign specialists working at the Institute ... The study concludes that while complete elimination of risk of clandestine misuse is not possible, the risk of such diversion is low.”⁸³ This twenty-five percent threshold had apparently been the standard yardstick ever since, as it was also mentioned in the Intourist safeguards agreement.⁸⁴

But by 1976–77, the U.S. export control community had taken on a much more pessimistic view of the dangers of the clandestine use of computers. Now, the NSB experts argued that the recurrent diversion of 100-millisecond runs of

Cyber 76 time would add up to “a strategically significant computation” that was technically undetectable. In short, at the core of the denial decision was the alleged fact that the time span of 100 milliseconds could not be safeguarded, no matter how sophisticated the CDC proposal appeared to be. U.S. national security was a function of time.⁸⁵ This was a far cry from the former relatively generous twenty-five percent rule.

The company rejected this reasoning. CDC’s Hugh Donaghue pointed out that “nuclear work” for the U.S. government – i.e. probably the processing of nuclear test data – demanded the equivalent of 450 hours of Cyber 76 calculation time and that one U.S. nuclear laboratory ran its computer for 350 hours a month.⁸⁶ The company did the math for the U.S. government: to accumulate just “10 hours per month with 100 millisecond jobs requires the execution of 12,000 such jobs per day.” That would indeed be easily detectable by safeguarding calculation protocols. Moreover, small calculations that did not need an HPC could be done with smaller systems like the Soviet BESM-6. CDC called the entire argument of the government “specious.”⁸⁷

But as strong as CDC’s arguments were, they did not sway the U.S. export controllers’ decision to deny the export license. Because milliseconds could not be safeguarded, the Cyber 76 was not sold to the Soviets. Compared to the early 1970s, the U.S. government’s HPC export control assessments had, with the chilling of détente in the mid-1970s, taken a decidedly restrictive turn.

83 Enclosure, “NSC Under Secretaries Committee Report,” March 16, 1971, *FRUS*, 1969–1976, vol. IV, doc. 372.

84 Telegram, U.S. Mission to OECD, Paris, to Secretary of State, May 12, 1976, AAD. The agreement states: “IBM Western representatives will be resident at the Intourist computer facility and other locations where equipment is installed for a period of at least three years after installment ... and until the computer system is dedicated at least 75 percent” to the stated end-use. See also: Telegram, Secretary of State to U.S. Mission to OECD, Paris, May 11, 1976, AAD.

85 *Hearing Computer Exports*, 44–45 (statements of Stanley J. Marcuss).

86 *Hearing Computer Exports*, 27.

87 Letter George K. Bardos, CDC, to Rauer H. Meyer, DoC, in *Hearing Computer Exports*, 38–39.

The Bucy Report: a Fundamental Critique of HPC Safeguards

But critique of HPC safeguards was not just about the diversion of milliseconds of data processing. There were growing concerns that HPC sales would transfer strategic technology and lead to the loss of knowledge to the Soviet Union. The Control Data Corporation assured critics that the computer sale would not transfer technology: “computers, like the Cyber 76, are an application of technology rather than technology itself.”⁸⁸ CDC subscribed obviously to an understanding of a computer as an object and toned down the transmissibility of the knowledge that it embodied.

Yet this claim ran into strong resistance. Arguably the most influential critics of computer safeguards were J. Fred Bucy and his panel of experts who worked in 1975–76 for the Defense Science Board of the Department of Defense on a report on export control reform. This report, officially titled *An Analysis of Export Control of U.S. Technology: A DoD Perspective*, but commonly referred to as the “Bucy Report,” would become arguably the most influential policy paper in the history of U.S. export controls since 1949. It reflected the DoD’s deep concerns that détente and its push to liberalize export controls diminished U.S. technological advantages vis-à-vis the Soviet Union. The DoD asked Bucy and his panel to make recommendations as to how export control policy should address the dangers of technology transfers within the framework of closer U.S.-Soviet relations.⁸⁹ The report, largely worked out in 1975 and published in early 1976, paved the way to a conceptual shift in U.S. export control policy from the regulation of physical goods to the control over know-how.

In August 1977, the report’s recommendations became official DoD policy.⁹⁰ And finally, they were in 1979 partially included in the Export Administration Act, the statutory basis of the control system.⁹¹

Due to the report, Bucy rose to great prominence as the leading expert on export control issues, testifying regularly before Congress, writing newspaper and journal articles, and giving speeches. Bucy’s view of safeguards and the dangers of computer exports did not just carry the institutional weight of the Department of Defense. He was also a computer industry insider and knew the ins and outs of the business and of the technologies involved. A physicist by training, he had a long career with Texas Instruments, one of the leading U.S. semiconductor and computer companies, and rose in its ranks to become the firm’s president in April 1976.⁹² Bucy was not the only participant from the computer industry active in the debates – one of the four subcommittees working out the details of the Bucy Report consisted of representatives of the semi-conductor industry.⁹³ Indeed, in the 1970s, export controls had become first and foremost about the regulation of computers. In 1977, “55 percent by value of all applications approved for export to the Soviet Union, Eastern Europe, and the People’s Republic of China covered electronic computerized equipment.”⁹⁴

The Bucy Report was published on February 4, 1976, at almost exactly the same time as the expert panel of the National Bureau of Standards was established to discuss the Hydromet case and right before the Intourist license

88 *Hearing Computer Exports to the Soviet Union*, 36, see also 21.

89 For an in-depth analysis of the Bucy report in its historical context see Daniels and Krige, *Knowledge Regulation and National Security in Postwar America*, chapter 4; Mastanduno, *Economic Containment*, 186–219.

90 Harold Brown, Secretary of Defense, “Interim DoD Policy Statement on Export Control of United States Technology,” August 26, 1977, in U.S. Government Printing Office, *Transfer of Technology and the Dresser Industries Export Licensing Action: Hearings before the Senate Permanent Subcommittee on Investigations of the Committee on Governmental Affairs*, October 1978, 95th Congress, 2nd Session (Washington, D.C., 1979), 90–92.

91 Alan P. Dobson, *US Economic Statecraft for Survival 1933–1991: Of Sanctions, Embargoes and Economic Warfare* (London, 2002), 227–228.

92 For a short biographical sketch of Bucy, see *Transfer of Technology to the Soviet Union*, 24–25. See also J. Fred Bucy, *Dodging Elephants: The Autobiography of J. Fred Bucy*, Kenneth R. Martin, ed. (Indianapolis, IN, 2014).

93 “Bucy Report,” xi.

94 Statement Stanley J. Marcuss, Deputy Assistant Secretary for Domestic Commerce, Department of Commerce, in *Hearing Computer Exports*, 10.

was approved. Even though it came too late to directly influence the two cases, it provided another generally critical reassessment of the dangers of safeguards. This reassessment went hand in hand with the serious setbacks détente faced in 1976. The SALT II negotiations failed, tensions rose over Soviet and Cuban involvement in Angola, and the domestic-political mood in the United States turned increasingly against détente.⁹⁵ Against this backdrop of brewing crisis, the Bucy Report stated in no uncertain terms that safeguards, which it also synonymously called “deterrents,” did not “provide positive assurance” that diversion of “strategic products and technology” to military uses “will not occur.” It also saw a problem in the complex public-private construction of safeguard contracts: “In all safeguard agreements, the seller is responsible for reporting the purchaser’s violations, which creates sufficient conflict of interest by the seller that is considered unlikely that such safeguards are rigorously enforced. Moreover, such policing by private firms can well expose them to hostile situations without diplomatic protection from prosecution. And since the U.S. Government’s interests are only loosely coupled to such protection mechanisms, private firms are understandably reluctant to report violations.”⁹⁶ In addition to its skepticism toward U.S. corporations, the report also expressed deep mistrust about Soviet intentions. A Soviet change of mind and a violation of safeguards in the future seemed to Bucy rather likely, even though, as the report itself alluded to, the Soviet Union (or its allies) had not once infringed upon its contracts.⁹⁷

The report’s key argument, however, was that the sale of HPCs transferred sensitive U.S. technological knowledge: “The mere presence of large computer installations transfers know-how in software, and develops trained programmers,

technicians, and other computer personnel.” In other words, the Soviets would learn about the Western technological state of the art by using cutting edge computers. They acquired knowledge that could then be “redirected to strategic applications.”⁹⁸

Thus, the danger was not so much the HPC itself but the knowledge it embodied and the opportunity its daily use gave to the Soviets to acquire know-how, skills, and experience. Hence, Bucy’s main concern was not reverse engineering; the report explicitly dismissed it as an ineffective way of technological learning.⁹⁹ Its worst case was that the Soviets would acquire so much experience that they would learn how to *design* and *manufacture* computers. Because safeguards focused on the product, on technological artifacts, they missed the point. For Bucy technology was not about objects. They only embodied the actual heart of all technology: “design and manufacturing know-how.” The “detail of how to do things is the essence of technology,” the report stipulated. “This body of detail is hard earned and hard learned. It is not likely to be transferred inadvertently. But it can be taught and learned.”¹⁰⁰ The “highest and most effective level of technology transfer” was the “[e]xport of an array of design and manufacturing information plus significant teaching assistance which provides technical capability to design, optimize and produce a broad spectrum of products in the technical field.” Hence, export controls over know-how were “of overwhelming importance to our national security. It is mastery of design and manufacturing that increases a nation’s capability, and it is in this area that the U.S. maintains its technological leadership.”¹⁰¹

There was a fundamental tension in this emphasis on information and intangible knowledge and the report’s opposition to computer sales.

95 Garthoff, *Détente*, 538–562; Zanchetta, *Transformation*, 158–185.

96 “BucyReport”, 25.

97 Ibid. CDC also pointed out in 1977 before Congress that the Soviets had been respecting and had never violated the safeguard agreements. Statement Robert D. Schmidt, in *Hearing Computer Exports*, 25.

98 “BucyReport”, 25.

99 Ibid., 5.

100 Ibid., 1, 3.

101 Ibid., 1.

If even the export of manufacturing equipment did not “in itself transfer product design technology” or “give the receiving country comprehensive insight to the entire manufacturing process,” how could then the sale of a computer be categorized as a technology transfer and national security risk? To Bucy computers were not just artifacts, but also learning devices. His report made the broad philosophical claim that “the widespread use of computers, even in commercial applications, enhances the ‘cultural’ preparedness of the Soviets to exploit advanced technology. It gives them vital experience in the uses of advanced computers and software in the management of large and complex systems.”¹⁰² In fact, computers were very much like manufacturing equipment as they also “added to an already developed technology base” and “may give a country the only means of rapid product proliferation.” By treating HPCs like manufacturing technology, the report put them in the category of technologies – called “keystone” technologies and equipment – that were the foundation of U.S. national security, its military technological lead over the Soviet Union (and everybody else), and upon which its global economic power rested.¹⁰³

Even though the report did not make the connection to HPCs explicit, its critique of their export was informed by its concept of “revolutionary” technologies that made developmental “quantum jumps” possible. These jumps were “based on conceptual departures from current practice” and sped up the “overall velocity” not only in a technological field but also of the developmental trajectory of an entire country. Since U.S. national security since 1945 was a function of producing and maintaining technological superiority over its adversaries, the relative speed of its knowledge advances was a central concern. “Quantum jumps” carried, therefore, the promise of enhancing national security: “Each revolutionary advance affords

the nation that achieves it the opportunity to maximize lead time.” But this lead time was “extremely perishable. It dissipates quickly as the basic concepts and know-how become widely known and exploited.” Knowledge was subject to the classic freerider problem. Whereas the “leading country must work its way up the incremental track without outside help ... the ‘lagging country’ advances both by its own incremental efforts and by the general diffusion of technology.” The Bucy Report advocated actively slowing down the “general diffusion” of U.S. revolutionary technologies. Export controls “should clearly deny any transfer of key technical elements” that made revolutionary advances possible “in order to maximize strategic lead time.”¹⁰⁴

Given their technological complexity and their enormous political and symbolical significance HPCs were obviously a “revolutionary” technology in need of a strict denial policy. Their sale was dangerous to U.S. lead time and national security. Safeguards were entirely inadequate because know-how could not be regulated *after* it had been exported and shared: “Once released it cannot be taken back, contained, or controlled.” Its transfer was “irreversible”: after the Soviets had learned something the United States could not make them unlearn it.¹⁰⁵

While the Department of Commerce still considered CDC’s license application, Bucy testified before the U.S. Senate and applied the reasoning of his report explicitly to the Cyber 76 case. “By my definition they (CDC) are selling know-how,” he declared. He told the Senators in no uncertain terms: “I would oppose the Cyber 76 sale because it gives the Soviet a capability that can be used beyond peaceful purposes and it helps them build an infrastructure which helps them close the gap in the technology.”¹⁰⁶

102 Ibid., 25.

103 Ibid., 2.

104 Ibid., 11–12.

105 Ibid., 26.

106 *Transfer of Technology to the Soviet Union*, 26–31, quotes at 31 and 27.

The Cyber 76 case, however, was only a small part of a much broader fundamental critique Bucy and other critics directed against détente and the policy of technology sharing so central to U.S.-Soviet rapprochement. For Bucy, détente had been a grave mistake, a dangerous give-away of U.S. technology to a mortal enemy. “Five years ago,” he explained to the Senate, “the United States began a dramatic increase in its commercial and technological contacts with the Soviet Union, Eastern Europe and – to a lesser degree – the People’s Republic of China. There was a lot of talk back in 1972–73 about how this increased trade and technology transfer would lead to a moderation in Soviet behavior by giving them a vested interest in mutual restraint. Events of the last few years have shown, however, that we were deluding ourselves. ... The Soviet Union has continued its buildup of strategic and conventional forces to the point where ‘rough equivalence’ is giving way to Soviet military superiority.”¹⁰⁷ For the Soviets, détente had not been a policy of peace but a means to “aggressively [pursue] ... access to technology from the U.S. and other industrialized Western countries. The Comecon nations have consistently lagged far behind the West in industrial technology. By the early 1970s the electronics revolution in the West threatened to put them even farther behind.”¹⁰⁸

Bucy was convinced that the United States had been squandering this technological advantage by sharing its know-how, its most important but “depletable national asset ... of primary importance, vital both to the Nation’s well being and to the growth of our corporations. We view with concern any actions that accelerate the flow of technology out of the United States. We are even more concerned when this outflow impacts national security.” There was no doubt in Bucy’s mind that the “transfer of militarily significant technology” to the Eastern bloc in the past five

years had been “of major proportions,” closing the technological gap. Bucy warned that the effect of this misguided knowledge sharing was about to “become evident in the next 5 years. Unfortunately, by the time it becomes apparent, it will be too late to act.”¹⁰⁹ To avoid a rude awakening, Bucy pushed for a “coherent national policy on technology transfer” that would tighten up export controls across the entire spectrum of technological relations with the Communist countries: technical exchange contracts between Western companies and the Eastern bloc governments, turnkey factory sales, government-to-government scientific-technological exchange agreements, and academic relations between universities (including foreign students in the U.S. whom Bucy saw as potential industrial spies).¹¹⁰ The Bucy Report, though less outspoken about détente than Bucy’s testimony, turned his line of argument into the DoD’s official export control reform policy. The report’s motto was an apocryphal quote by Lenin: “The capitalistic economy plants the seeds of its own destruction in that it diffuses technology and industry, thereby undermining its own position.”¹¹¹

Clearly, the intense debate about the Cyber 76 and HPC safeguards was part and parcel of the debates about the merits and dangers of détente. Technology transfers and the exports of HPCs were not just a sideshow. They were central to the attacks against the political steps taken toward opening up to the East. Bucy was only one voice in a swelling chorus of critics who attacked HPC sales and safeguards with similar arguments. By the end of the 1970s, Bucy’s arguments had been entirely adopted not only by the Department of Defense but also by a large number of détente critics. The Heritage Foundation referred to Bucy in its attack on HPC sales.¹¹² William Perry, Under-Secretary of Defense for Research and Engineering, referred repeatedly to Bucy’s ideas when he testified before

107 Ibid., 4.

108 Ibid., 16.

109 Ibid., 3.

110 Ibid., 4, 13, 14, 17.

111 “Bucy Report”, i. For a direct reference to and implicit critique of détente see “Bucy Report”, 27.

112 Miles M. Costick, “The Strategic Dimension of the U.S. Computer Exports to the U.S.S.R.,” *Heritage Foundation Background* 12, June 8, 1977, last accessed October 19, 2021, http://s3.amazonaws.com/thf_media/1977/pdf/bg12.pdf, p.3, 16.

Congress that computer safeguards “are not effective.” In the same context, Senator Henry M. Jackson (D-WA), one of the most prominent détente critics, used HPC sales as an example to attack technology losses to the Soviets during détente as an existential danger to U.S. national security.¹¹³ Due to their high symbolic significance, HPCs served as a concrete reference point that the proponents and critics of détente could gather their troops around. Computer technology demonstrated and made intelligible how high the stakes of détente were. To détente’s advocates, HPC dual use technology could establish positive links between enemies, and safeguards could be seen as an effective instrument of building political trust. To détente’s critics, however, HPC technology transfer would strengthen the adversary economically, politically, and militarily and enhance its capabilities to fight and even destroy the United States.

Safeguards embodied U.S. détente policy in its rise and its fall. They were established at the outset of détente in the early 1970s to balance the conflicting goals of political rapprochement and economic interests in a developing market on the one hand and national security in the context of an intense military competition and arms race on the other. When détente came under political fire, especially from the political right, but also from the Cold War national security community, distrust began to dominate the debates around safeguards, and pessimistic expectations about the economic, political, and military effects of détente translated into exceedingly restrictive assessments of HPC exports. The decline of U.S.-Soviet relations and the massive critique of computer trade put an end to HPC sales – if not overnight, then step by step – by the end of the decade.

113 U.S. Government Printing Office, *Transfer of Technology to the Soviet Bloc: Hearing before the Permanent Subcommittee on Investigations of the Senate Committee on Governmental Affairs*, February 1980, 97th Congress, 1st Session (Washington, D.C., 1980), 3–5, 25–30, 52, quote at 30.



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Verlags.

Abstract

This paper addresses the transformation of work and employment in the period of post-COVID-19 in South Korea. The COVID-19 pandemic displays the failure of the market in managing the public health crisis and the crisis of neoliberal globalization, demanding massive state intervention to reproduce the stability of the social system. COVID-19 disrupted global production networks and global supply chains, generating economic disorder and mass unemployment. It also revealed the segmented labour market based on firm size, gender, employment status, and inadequate social protection. The COVID-19 pandemic, therefore, reveals problems that are embedded in the Korean economy, though at the same time provides an opportunity to discuss alternatives to the neoliberal economy. In particular, discourses on universal basic income and universal unemployment insurance have gained popularity as COVID-19 has disrupted mass' livelihood through promoting precarious work and expanding the population unprotected by labour laws and the social security system.

Keywords: COVID-19; Precarious Work; Labour Market Segmentation; Global Supply Chain; Universal Basic Income; Korea

Introduction

COVID-19 has revealed doomsday scenarios of lockdowns, social distancing, and incessant mass hospitalization with mechanical ventilators. Furthermore, the coronavirus has disrupted the neoliberal economic order and, simultaneously, ordinary people's livelihood, thus engendering the foundation of the global capitalist system. It heralds the complete failure of the market in providing safety to the people and the return of the state in public health and the market economy.

COVID-19 brought about the shutdown of the national and global economy simultaneously from early 2020, shattering global value chains and the national market system. The coronavirus first erupted in Wuhan, China and rapidly engulfed the entire world within three months. From the beginning, there were disputes in many countries over the necessary policy responses to the virus. Unlike many countries in Europe that implemented lockdowns, however, the South Korean government did not impose lockdowns, and the impact of COVID-19 on the Korean economy was relatively less severe.

Nevertheless, the COVID-19 pandemic has typically disrupted the labour market in almost all countries, generating mass unemployment and shortening working hours in the manufacturing and service sectors. However, the prolonged

COVID-19 pandemic has had differential impacts on workers and has amplified vulnerability in the labour market. Both disruptions of the global network of production and disturbance of local markets have destructive impacts on jobs and on work.

This paper addresses the changing nature of work and employment in the post-COVID-19 era in South Korea, exploring the breakdown of global production networks and the local employment system and the increasing precariousness of non-regular workers in the country. This paper argues that following the outbreak of the pandemic, further polarization and the marginalization in the labour market disclose the vulnerabilities of Korean society. The unemployment rate has decreased in spite of the mass unemployment as the unemployed have exited from the labour forces to become part of the non-working population. The latter displays the limits of traditional policy measures to mitigate the negative impacts of the pandemic on work and social security. As the platform economy emerges and the large size of the petty bourgeoisie persists, current labour market policies and social protections fall short in preventing social crisis. However, alternative policy discourses related to social protection, such as universal basic income (UBI) and universal unemployment insurance (UUI), have emerged from the economic crisis.

The Covid-19 Pandemic and the Economic Crisis

The COVID-19 pandemic has resulted in a simultaneous reduction in both supply and demand. The outbreak of coronavirus in Wuhan and its spread to elsewhere in China in January 2020 led to a sudden disruption of China's global supply chains as Beijing halted factory operations across the country in the first week of February 2020. The lockdown of factories in Wuhan alone immediately affected the global auto industry as Wuhan is a supply centre of vehicle components for numerous global automakers (Williams, 2020). The breakdown of China-sourced global supply chains immediately led to a suspension of operations in Japanese automakers such as Toyota, Honda, and Nissan in China, and South Korean automakers such as Hyundai and Kia, GM, Renault-Samsung, and SsangYong in Korea (Hara, 2020).

Hyundai, the largest car manufacturer in South Korea, became the first global automaker to suspend production due to a shortage of hand-made wiring harnesses sourced from companies in China (Shin, 2020). Others such as Kia Motors, Renault Samsung Motors, and SsangYong Motor also suspended production for several days. This brought about mass unemployment in subcontracting companies and reduced working hours in South Korea.

Second, the disruption of companies' operations also occurred due to the Covid infection of workers in those companies in South Korea. Although the government did not impose a national lockdown, major automakers such as Hyundai, Kia, Renault-Samsung, and SsangYong repeatedly suspended operations for days at a time due to outbreaks amongst workers in those companies. In November 2020, the two largest electronics companies in Korea, Samsung and LG Electronics, also shut down their research labs and factories due to Covid outbreaks amongst their workers (Song, 2020; Yonhap, 2020).

Third, social distancing immediately affected the wholesale and retail industry, along with the accommodation, restaurant, tourism, and entertainment industries. People's everyday lives were immediately affected by the closure of schools, theatres, concert halls, gyms, religious organizations, and childcare facilities. Those who worked in those sectors lost their jobs or were forced to work much shorter hours than before. The service sector as a whole was thus heavily damaged by the Korea Disease Control and Prevention Agency's imposition of social distancing in 2020.

Strengthening Segmentation of the Labour Market

In recent decades, there has been an ongoing transformation of the labour market in South Korea with regards to firm size, employment status, and work status. These changes have contributed to deepening of labour market segmentation along with the reshaping of wage distribution and working conditions.

First, there has been a segmentation of workers in accordance with company size. Known as the *chaebol*, large family-owned business groups in the manufacturing sector have grown into global corporations. They have globalized

their production and sales via international markets since the late twentieth century. In contrast, small and medium-sized companies have maintained their conventional business practices. Labour unions were organized at the *chaebol* following the fierce workers' struggle that took place during the hot summer of 1987, with workers in the major industrial sectors demanding wage hikes and improved working conditions (Gray, 2008, pp. 52–70; Koo, 2001). As a result, sharp wage increases occurred in the key *chaebol* companies, widening the wage gap between large and small/medium companies.

Moreover, as unions were concentrated in large companies, the union effect on wages has been substantial. Consequently, labour market segmentation by firm size became a significant new development in the post-1987 period.

The second moment of segmentation of the labour market occurred when the casualization of employment rose sharply after the financial crisis in 1997. Companies that survived the financial crisis pursued labour market flexibility by hiring diverse non-regular workers and thereby facilitating extensive workforce casualization. The proportion of non-regular workers increased by almost 10 % between 2002 and 2004 (Shin, 2013, p. 343). The extensive casualization of work was an immediate outcome of an agreement among state, business, and labour to tackle the financial crisis in 1998 and its aftermath.

The third moment of the labour market segmentation was the employment system's polarization after the outbreak of coronavirus in 2020. The division of regular workers and non-regular workers has become wider as non-regular workers have seen massive layoffs. The proportion of those who were laid off after January 2020 was 36.8 % for non-regular workers, compared to 4.2 % for regular workers (Embrain Public Korea, 2021, p. 21). Furthermore, protected workers in the labour market have tended to enjoy stronger protections in public health than precarious workers. As the Korea Disease Control and Prevention Agency imposed social distancing to prevent the spread of the coronavirus, regular white colour workers in large companies and in the public sector were able to work from home. In contrast, non-regular workers were made redundant and laid off first due to the contraction of production and the market, except for indispensable workers necessary for essential services such as cleaning, care, and security. Ironically, those indispensable workers were the workers with the lowest wage and poorest protection in the labour market.

An immediate impact of the Covid-19 crisis was further fragmentation of the labour market by increasing the number of daily workers, i.e. the most precarious non-regular workers

in South Korea. While the total number of non-regular workers decreased by 55,000, from 7.426 million to 7.371 million, daily workers on contracts of less than one month increased by 20.1 % between August 2019 and August 2020 (Statistics Korea, 2020a, p. 23). Employers hired daily workers to enhance the flexibility of their employment system. Ironically, daily workers also show the highest unemployment rate among precarious workers, at 45.8 % in 2020, compared to 40 % for dispatched workers, 38.5 % for atypical workers, and 38.3 % for part-time workers (Embrain Public Korea, 2021, p. 51). Daily workers are the most precarious and are exposed to insecure work and minimal social protection. In 2020, almost 80 % of daily workers were not covered by national pension and health insurance. Only 20.5 % of them were covered by the national pension, 20.2 % by health insurance, and 55.8 % by unemployment insurance (see Table 1).

The petty bourgeoisie (*jayeongubja*), defined as the self-employed without employees, also increased as some unemployed workers subsequently became the petty bourgeoisie in the service sector. While the bourgeoisie who hire other workers (*jabonga*) saw a reduction of 2.1 % between August 2019 and August 2020, the petty bourgeoisie increased by 2.5 % during the same period. The petty bourgeoisie comprises a part of precarious social class since the majority of them are poor and are not covered by social protection. In 2020, the average disposable income of the petty bourgeoisie was 68.5 % of that of regular workers, and the poverty rate, 16.26 %, was almost three times higher than that of regular workers, 5.79 % in 2020 (Statistics Korea, 2020e). The petty bourgeoisie also shows low social protection. More than half the petty bourgeoisie did not have any national pension coverage in place for their old age (Statistics Korea, 2020d, p. 34). Of course, they do not have unemployment insurance since they are self-employed. Thus, in 2020 the poverty rate of the petty bourgeoisie, 16.26 %, is almost three times higher than regular workers, 5.79 % (Statistics Korea, 2020e).

The recent labour market transformation has shown the rise of the NLFET: ‘neither in the labour force nor in education or training’. While the NEET indicates those who are ‘neither in employment nor in education and training’, the NLEFT excludes the unemployed from the NEET (Serracant, 2014). The term ‘NEET’ was introduced to capture the non-working youth. However, the NLEFT may consist of diverse age groups, and thus is not necessarily restricted to young people aged 15–34. Some of those who lost their jobs temporarily exited from the labour force. Statistics Korea does not consider the NLEFT as part of the labour force and thus they are left out of the unemployment statistics. This leads to a paradoxical consequence: The economically active population decreased by 550,000 due to the economic depression

after the WHO declared the COVID-19 pandemic on March 11, 2020. However, the unemployment rate decreased by 0.2 percent, from 4.4 % in April 2019 to 4.2 % in April 2020, and the employment rate dropped by 1.41 percent, from 66.51 % to 65.1 % during the same period (Statistics Korea, 2020b). An increase in the economically inactive population by 831,000 contributed to a lower unemployment rate. The unemployment rate declined further to 3.2 % in August 2020 as most of the unemployed became part of the economically inactive population (Statistics Korea, 2020b). During the COVID-19 pandemic, a large part of the labour force has shifted from employment to non-employment, thereby leading to the simultaneous decrease in both the employment and unemployment rate.

Foreign Workers

During the Covid crisis, many governments restricted labour mobility across national boundaries, thereby disrupting the global

labour supply chains between developed and developing countries.

Table 1. Social protection by employment status in 2020.

	National pension (%)	Unemployment insurance (%)	Health insurance (%)	Union membership (%)
Regular workers	98.3	94.4	98.5	13.0
Non-regular workers	61.7	74.4	64.9	0.7
Dispatched	94.9	96.2	96.1	2.2
Daily	20.5	55.8	20.2	0.0
Part-time	77.6	81.1	79.0	0.4
Fixed term	86.6	86.2	93.1	1.2
Temporary	39.5	43.9	41.4	0.0
Home worker	80.2	76.2	78.7	2.5

Source: Statistics Korea (2020c, p. 29).

Thus, the pandemic damaged the weakest industries and workplaces that are heavily reliant on foreign workers. Since the outbreak of the pandemic, the supply of foreign workers to South Korea from China and Southeast Asia ground to a halt. While in 2020, 56,000 foreign workers were expected to come to South Korea, only 9.9 % of them had arrived by August that year (The Ministry of Labor, 2020a).

Since foreign workers’ wages are less than 30 % of that of non-regular workers, the small and medium-size companies relying on low wages in the manufacturing, construction, services, agriculture, and fishery sectors have seen strong demand for migrant workers (Cho, 2010). The pandemic thus led to a sudden disruption of global labour supply chains, causing economic difficulties in those sectors. Employers

have experienced serious labour shortages in the ‘three-D jobs’ characterized by dangerous, dirty, and difficult work. In response, on April 13, 2021, the Ministry of Labor announced the renewal of migrant worker visas for one year if they had exceeded their term of stay (Ministry of Labor, 2021a).

Foreign workers were exposed to the risk of infection because many of them live together at close quarters to save living costs and work in enclosed spaces. Some of them are illegal

workers and thus are reluctant to visit public health centres even though they had Covid symptoms. Thus, some local governments issued an administrative order that all foreign workers should be tested for Covid at the public health centre in February 2021, provoking protests by civil society organizations as a violation of the human rights of foreign workers (People Power 21, 2021). Thus, the issue of foreign workers became an issue of the labour force, quarantine, and human rights.

Automation and Precarious Work

South Korea has the world’s highest robot density in manufacturing. In 2018, it used 631 robots per 10,000 employees, eight times higher than the global average (IFR, 2018). This was an outcome of business’ preemptive response to the growing labour movement in the 1990s. As the workers’ movement grew in the summer of 1987, large companies took two strategies to respond to it. One was modular production development, by which large companies brought parts from small and medium-sized companies in South Korea or overseas via a vertical hierarchal network (Kim et al., 2011). The *chaebol* focused on assembling the final products, whereas small and medium-sized companies and offshore producers supplied the parts (Baek & Jo, 2009).

Another was the automation of assembly lines by introducing robots (Koo, 2000, pp. 235–236). During the COVID-19 pandemic, the ‘un-tact’ (a Korean term combined ‘un’ with ‘contact’) trend has accelerated robot automation in the service sectors, including office work. The banking sector and the education sector have also rushed to introduce un-tact services. Replacing face-to-face services, companies in the service sector could also utilize labour saving machines such as vending machines. In reality, employment in retail and wholesale, restaurants and accommodation, education, arts, and entertainment reduced by 10.2 % between April 2017 and October 2020 (Song & Kim, 2021, p. 4).

The Covid-19 pandemic’s impact was not so damaging to the manufacturing sector in South Korea due to the existing significant level of automation. Figure 1 displays the impact of the financial crisis in 1997, the subprime mortgage in 2008, and the current Covid-19 pandemic on the change of employment in manufacturing industry and retail and wholesale industry. Automation resulted in the pandemic having a less severe impact on manufacturing production compared to previous crises. However, retail and wholesale lost more than 123,000 employees between April 2019 and April 2020 (Statistics Korea, 2020a, p. 11).

As the Covid-19 pandemic persists, the application of robots and artificial intelligence in production and business will likely increase. An immediate result of the rapid transformation of industrial production and the service sector will thus be mass unemployment. Before the outbreak of Covid-19, the share of jobs at high risk of automation was estimated to be from 7 % to 33 % (Arntz et al., 2016, p. 33). The pandemic thus is likely to accelerate the application of automation and Artificial Intelligence (AI) as the un-tact economy becomes the new normal, thereby generating a significant change in the future of work.

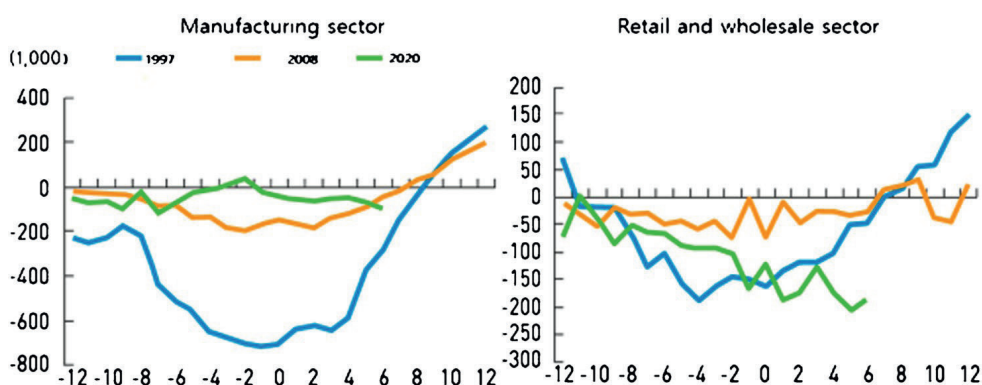


Figure 1. Changes in employment in the manufacturing industry and retails and wholesale industry for three crises. Source: Statistics Korea (2020). Press Briefs: Social Trends in Korea 2020, p. 16 (December 10, 2020).

Note: The reference point is August 1998, May 2009, and April 2020.

Gender and work

The sharp decrease in employment in the service sector has affected female workers more than men as the former have been concentrated in the service sector. Here the service sector represents the contact (face-to-face) economy in which service providers meet customers directly. During the COVID-19 pandemic, the largest reduction in the number of workers occurred in the service sector. Compared with January 2020, the number of workers reduced by 367,000 in the food and accommodation sector, 218,000 in the retail and wholesale sector, and 103,000 in the private service sector in January 2021 (Statistics Korea, 2021). The impact of the COVID-19 pandemic has been thus much more severe for women in terms of layoffs and reduction in wages. The reduction in the women's employment rate was 1.5 times higher than that of men's (KWDI, 2020).

The closure of schools contributed to the reduction of women's employment since women had to care for their children at home (Kim, 2021). Thus, married women quit their jobs and moved into the non-economically active population. During the first wave of the pandemic, the probability of the transition from employment

to unemployment for men increased from 0.65 % to 0.75 % between January and March in 2020, whereas it for women increased from 0.68 % to 1.39 % for the same period. The probability of the transition from employment to the non-labour force increased from 1.15 % to 1.67 % for men. In contrast, it increased from 3.09 % to 5.09 % for women (Kim, 2021, p. 65). The highest probability of the transition from employment to the non-labour forces was observed among the married women aged 39–44, mostly mothers of elementary school children (Kim, 2021, p. 67).

The shutdown of schools and the introduction of remote education via the internet could not attenuate the role of female workers as mothers significantly. The pandemic thereby revealed the severe unbalance between work and family life for women in South Korea, where mothers are still primarily responsible for taking care of their children. Care work for children has been focused on infants aged from 1 to 5. The pandemic thus shows that the current child-care system does not work well for elementary school children.

Alternative Policy Debates: Rebuilding Labour Rights

The outbreak of Covid-19 reveals the lingering issues of labour rights again as the segmentation and polarization of work accelerates. The policy debate on basic income and universal employment insurance has emerged as the pandemic has disrupted the employment and livelihood of the people. Neo-liberal economic globalization has already undermined labour standards and labour rights achieved through past workers' struggles. In particular, the rise of platform workers has generated a new issue on labour rights. Platform workers are not workers in a legal sense, and are outside of the labour regulation and social protections associated with employment. They are not covered by unemployment insurance since they are not employed. They do not have a pension for old age either because there is no national pension scheme for independent workers. As a result, they must buy private insurance. In short, they are entirely uncovered by public social protections. The changes in the labour market generate incompatibility of existing social protection schemes with new forms of work.

As an alternative to social protection, the idea of universal basic income (hereafter UBI) has become popular in academic circles and in civil society in South Korea (D. Kim, 2020). The pandemic has contributed to the introduction of UBI as a means of overcoming the underdeveloped welfare state and the rise of the platform economy. Lee Jae-Myung, Governor of Gyeonggi province, advocated for UBI and started to discuss the UBI as the main agenda of his 2022 presidential campaign. He announced that the government gives 2,000,000 won (\$1750) to the young people aged between 19 and 29 and 1,000,000 won (\$875) to all other citizens every year.¹ Governor Lee already implemented the regional grant scheme on a smaller scale, granting payments to residents in Gyeonggi province alone.

The principle of the UBI as originally suggested by Philippe Van Parijs, was simple and was a way to promote real freedom for all to make their own choices. Freedom as a socialist ideal is a core value of his proposal so that the UBI should be unconditional, universal, and sufficient to meet basic needs (Parijs, 1995). In South Korea, discussions around UBI have emerged from the discourse on the welfare state as a policy response to poverty, rather than from socialist ideas. However, the COVID-19 pandemic has accelerated the debate. Governor Lee is also an influential politician, and the public have become familiar with the UBI scheme due to the experience of the disaster relief payments in 2020.²

Another approach to the deficiency of the social protection system has been to propose universal unemployment insurance (hereafter UUI), which covers the petty bourgeoisie and non-regular workers (Ministry of Labor, 2020b). Proponents of UUI argue that a large proportion of non-regular workers lies outside of social protection under the current system. In addition, the petty bourgeoisie, which amounts to almost 20 % of the labour force, remain outside of the state's social protection if they meet with bankruptcy or poverty. They complained that they could not gain assistance from the government even though the pandemic significantly damaged their income.

Social policy debates have been intense during the elections ever since the transition to democracy began in 1987. Lee Jae-Myung is leading in the opinion polls recently, while other candidates from the ruling Democratic Party support the idea of UUI as an extension of existing social security programmes (Ki, 2020). However, proponents of insurance-based social protection have criticized UBI, arguing that it is not efficient in dealing with poverty and redistribution (Yang, 2020).

1 Lee proposed the UBI with the new tax such as carbon tax and basic income tax (Yonhap, 2021).

2 For the last year, 109 academic papers were published in journals in social sciences and humanities in South Korea. Daily newspapers report scholarly debates on basic income and Governor Lee's comments on related issues.

Oh Sehoon of the conservative People Power Party was elected in the local by-election of mayor in Seoul in April 2021, proposing an 'assured income' to transfer a different amount of money according to the level of household income.³ Criticizing UBI as a populist idea, he proposed the assured income scheme, arguing that this would replace all public transfers to the poor. As such, this idea can be seen as a modified version of Milton Freedman's negative income tax (Choi, 2021). Social policy responses to precarious work and life in the post-COVID

19 will be one of the most important issues in the next presidential election in March 2022. For the last three decades, the debates on economic policy have overwhelmed the policy debates in the presidential elections. The politicization of social protection is new to the Korean presidential elections, and thus, the next election will likely be a turning point in welfare politics in South Korea. This is significant, given the absence of a strong leftist party or influential labour unions.

Concluding Remarks

The Covid-19 pandemic has posed a significant challenge to global capitalism. While it has been a health crisis, it has undermined the global economy and the lives of precarious social groups. South Korea, which had experienced other fatal pandemics such as the severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS) before, was effectively able to implement countermeasures.

Nevertheless, disruption of global production networks and the disorder of the domestic market led to the further polarization and casualization of work in South Korea. The suspension of production due to shortages of parts supply had knock-on effects on subcontracting firms generating unemployment and shorter working hours. The pandemic has reinforced segmentation between regular workers and non-regular workers. The shrinking consumer market has also reduced the size of the petty bourgeoisie in the service sector and has driven the unemployed into the inactive labour force.

The pandemic has driven female workers with children from the labour market and eventually from the labour forces. The closure of schools has forced married female workers to provide childcare, thereby lowering the unemployment

rate directly. The transition of the unemployed to the non-working population resulted in a seemingly paradoxical reality: Though mass layoffs occurred, the unemployment rate went down. Mass layoffs in the service sector with female workers with children led to the rise of the NLEFT, those who are neither in the labour force nor in education and training.

The Covid-19 pandemic has also contributed to the rapid rise of platform labour in the service industry and has accelerated automation in the manufacturing industry. The application of labour saving technology persistently undermines the labour market and social protection system. More than half of non-regular workers remain outside of such social protections. With the sharp rise of platform workers, platform work becomes a critical social and political issue in the post-Covid-19 pandemic.

As an alternative to the current social protections, the discourse on UBI has become prevalent in South Korea. While it was only confined to a small group of radical scholars before the pandemic, now politicians such as Governor Lee have adopted the UBI as a part of the political agenda. This proposal has become popular due to the experience of cash transfer as a disaster

³ Mayor Oh promised to carry out a pilot experiment with 200 households in 2021. The main idea of the assured income is that the state transfer half the gap between the median income and the household income to the low-income households. Therefore, the amount of transferred income differs according to the level of income among the low-income households.

relief measure. Although the government's income support in South Korea is different from Parijs' philosophical premises, the UBI as a new policy idea is gaining more support than ever before. In addition, the 'assured income' as a conservative alternative to UBI was proposed by Mayor Oh who promised to carry out a pilot experiment in the second half of 2021. As such,

the politicization of social policy represents a new stage of Korean politics.

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References

- Arntz, M., Gregory, T., & Zierhan, U. (2016). *The risk of automation for jobs in OECD countries*. OECD Social, Employment, Migration Working Papers 189.
- Baek, D.-J., & Jo, H.-J. (2009). Systemic rationalization and labor flexibility: Focused on the in-house subcontract of Hyundai Motor Company. *Journal of Industry and Labor*, 15(2), 349–383. (in Korean).
- Cho, D. (2010). Wage differentials between foreign workers and domestic workers. *Labor Policy Studies*, 10 (3), 56–86. (in Korean).
- Choi, E. (2021, May 5). The designer of Oh Sehun's assured income "the poor get much, the rich get small ... more money for those who work". *JoongAng Daily*. (in Korean).
- Embrain Public Korea. (2021). *The survey report on COVID-19 and the change in working life*.
- Gray, K. (2008). *Korean works and neoliberal globalization*. Routledge.
- Hara, Y. (2020, February 6). Honda and Toyota to keep Chinese plants closed over the virus fears. *Nikkei*.
- International Federation of Robots. (2018). *Robots density by country*.
- Ki, M. (2020, June 9). Presidential candidates from the ruling party divided into two parts, basic income and universal unemployment insurance. *Seoul Shinmun*.
- Kim, D. (2020, June 13). South Korea mulls universal basic income post-COVID. *The Diplomat*.
- Kim, J. (2021). Gender differentials in the impacts of the COVID-19 on employment and its implication. *Economic Prospect*, KDI (in Korean).
- Kim, Y., Je, J. H., & Jeong, J. (2011). Modular production and Hyundai production system: The case of Hyundai MOBIS. *Economy and Society*, 92, 351–385. (in Korean).
- Koo, H. (2000). The dilemma of empowered union in Korea: Korean Workers in the face of global capitalism. *Asian Survey*, 40(2), 227–250. <https://doi.org/10.2307/3021131>
- Koo, H. (2001). *Korean workers: The culture and politics of class formation*. Cornell University Press.
- Korea Women's Development Institute. (2020). *Women's employment crisis and policy issues in the post-COVID-19*. KWDI Brief 58 (in Korean).
- Ministry of Labor. (2020a). A policy brief for an extension of stay of immigrant workers, April 13, 2020. Ministry of Labor. (2020b). A roadmap of unemployment insurance for all, December 23, 2020.
- Parijs, P. (1995). *Real freedom for all, what (if anything) can justify capitalism*. Clarendon Press.
- People Power 21. (2021). Demand for stop of showing administrative activity by discriminating foreign workers, joint declaration for the day of abolition of racial discrimination. Retrieved May 21, 2021, from <https://www.peoplepower21.org/Solidarity/1776371>
- Serracant, P. (2014). A brute indicator for a NEET case: Genesis and evolution of a problematic concept and results from an alternative indicator. *Social Indicators Research*, 117(2), 401–419. <https://doi.org/10.1007/s11205-013-0352-5>
- Shin, J. H. (2020, February 4). Hyundai Motor halts production at local plants on parts supply disruption. *The Korea Herald*.
- Shin, K. Y. (2013). Economic crisis, neoliberal reform, and the rise of precarious work in South Korea. *American Behavioral Scientist*, 57(3), 335–353. <https://doi.org/10.1177/0002764212466241>
- Song, S. (2020, August 23). Tech industry on high alert as COVID-19 hits R&D, manufacturing facilities. *The Korea Herald*.
- Song, S., & Kim, H. (2021). Scars in COVID-19: Three issues in the labor market. *Bank of Korea Issue Note 2021-18*, Bank of Korea.
- Statistics Korea. (2020a). Press brief for the April 2020 employment trend, May 13, 2020.
- Statistics Korea. (2020b). Press brief for the May 2020 employment trend, June 10, 2020.
- Statistics Korea. (2020c). Press brief for the result of the additional labor forces survey by types of employment (August 2020), October 27, 2020.
- Statistics Korea. (2020d). Press reports on the additional survey of self-employment and economically non-active population survey (August 2020), November 11, 2020.
- Statistics Korea. (2020e). The panel survey of finance and welfare 2020 microdata.
- Statistics Korea. (2021). Press brief for the January 2021 employment trend, February 10, 2021.
- Williams, M. (2020, February 5). Coronavirus hits automotive supply chain in China and beyond. *Automotive Logistics*.
- Yang, J. (2020). Why is basic income not a factor of the development of the welfare state? *Economy and Society*, 128, 58–77. (in Korean). <https://doi.org/10.18207/criso.2020..128.58>
- Yonhap. (2020, November 18). Samsung, LG temporarily shut down research labs over virus cases. *The Korea Herald*.
- Yonhap. (2021, July 22). 2,000,000 won (\$1750) to the young people aged between 19 and 29. *Yonhap News Agency*.

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